

Consent Based Siting

From: Christine Speed
Sent: Thursday, June 30, 2016 6:26 PM
To: Consent Based Siting
Subject: Response to IPC

Dear Dept. of Energy,

I live in the 49th District of Congressman, Darrell Issa. Unfortunately, I am out of town and missed your presentation in San Juan Capistrano on June 22nd, but would still like to comment on the removal of nuclear waste from the San Onofre Nuclear Station. As you know, San Onofre sits right on the coast of San Clemente. Actually, it's right on the BEACH—just like Fukushima Daiichi in Japan. San Onofre is on the other side of the Ring of Fire where such a lot of earthquakes and volcanic eruptions occur.

I am in support of using the nuclear waste facility at Yucca Mountain. The federal government has spent millions of dollars studying this site and has employed some of the brightest, geologists to do so. These geologists have studied the site from every angle and concluded that its technical characteristics make it an optimally safe site. Their extensive report has been finalized for some time now.

Storage of nuclear waste is a critical safety issue, safety that only the federal government can provide. Yet no action has been taken by Congress to permit Yucca Mountain to begin its life as a storage facility. Rather, Yucca Mountain has been treated like a political football— FOR YEARS while WE sit next door to 3.6 million pounds of nuclear waste that are at total risk of catastrophic contamination the next time a tsunami or earthquake hits southern California. In other words, we are sitting on a nuclear time bomb just waiting to go off while Congress remains in paralysis. Such non responsive government is what makes citizens feel so helpless and then become so angry.

Congress cares about terrorist uses of dirty bombs. What about this dirty bomb? Why is this one different?

Please end the political obstruction of the Yucca Mountain repository. You have extensive geological science on your side. Use it. Mount an Executive Branch legislative offensive. March up to the Hill and make your case. Create some noise. Remind those Congressmen that southern California will see to it that every single obstructor will lose his job if San Onofre blows up while they were treating the threat of nuclear destruction like a cute political game— especially — when a totally safe site has been available for some time now and there is no scientific excuse for not using it. Thank you.

Sincerely,

Christine A. Speed

Consent Based Siting

From: William P Gloege
Sent: Thursday, June 30, 2016 1:03 PM
To: Consent Based Siting
Subject: Simplify

Dear DOE,

Your idea for "Consent Based Siting of Waste" is a good one. But can you streamline the outreach for comments and for explaining the program?

Who is your audience for this information? Who do you want to send comments?

It better not be the public because they will quickly click away to something else on their busy schedule.

Your site looks like something created by a government bureaucrat. How about asking for help from a good web designer, or somebody at Google. You know, someone who knows how to communicate with people.

That's the place you should start with this worthy and badly-needed waste storage program.

Please get busy ASAP.

Thank you.

William Gloege
Californians for Green Nuclear Power

Consent Based Siting

From: Leif G Eriksson
Sent: Thursday, June 30, 2016 11:56 AM
To: Consent Based Siting
Subject: Re: "Response to IPC"
Attachments: Response to IPC-Rev1.-Ige-30 June 2016.docx; WM2016-16010-FinalR1.pdf; WM2016 Presentation 16010-FinalR1.pptx

Thank you for the permission to correct my initial IPC. Attached please find the revised version.

Following are some of the edits I made:

- I listed the previously missing data source 4 (both the related 16010 paper and the presentation are attached). Listing it resulted in the previous data source 4 now being listed as data source 5.
- I condensed and included my initial response to question 4 in my updated response to question 3 and, instead, added a more appropriate response to question 4.
- I defined and replaced a couple of repeated terms/concepts with acronyms, e.g., DAP and S&D.

Please let me know if you need any related clarification or additional information.

Last, but perhaps not least, in response to one of your other e-mails with a response due by noon (EDT) today, I am relieved to be able to report that I received written permission from Waste Management Symposia LLC (WMS) yesterday for me and DOE to publish the five WMS papers and presentations listed in the attached IPC.

Sincerely,

Leif G. Eriksson

Public Comment To Inform the Design of a Consent-Based Siting Process for Nuclear Waste Storage and Disposal Facilities" (IPC)

TO WHOM IT MAY CONCERN

The December 23, 2015, Federal Register "Invitation for Public Comment To Inform the Design of a Consent-Based Siting Process for Nuclear Waste Storage and Disposal Facilities" (IPC), as well as the handout provided at the first related public meeting held in Washington, D.C. on March 10, 2016, solicited public responses on five "key" questions. Please find below responses to the aforementioned five questions from Leif G Eriksson,

. The ensuing responses are based upon my active involvement in and monitoring of nuclear waste management programs in the USA and abroad since 1978 (resume available on request by e-mail to [_____](#) or by phone at [_____](#)).

1. "How can the Department ensure that the process for selecting a site is fair?"

Put simply, ***it can't, because the "Department" does not control the process.***

Case in point, since the enactment of the still applicable, but not enabled since FY2011, Nuclear Waste Policy Act of 1982 (NWPA), as amended in 1987 (NWPA), both the Secretary of Energy and the U.S. Department of Energy's (DOE's) Office of Civilian Radioactive Waste Management (OCRWM), have been controlled both financially and productively by one or more of the U.S. President, the U.S. Congress, the majority leaders of the U.S. Senate, and the majority leaders of the U.S. House of Representatives. The related results, or rather the globally-embarrassing lack thereof, are not conducive to instilling confidence in either the Secretary of Energy's or the "Department's" ability to be able to ensure a "fair" process in the future.

With a peripheral glance beyond the current legal situation, as elaborated upon in e.g., the attached Waste Management (WM) 2013 [1], WM2015 [2 and 3], and 2016 [4 and 5] papers and the therein listed references, the new organizational Executive Branch structure for the siting and development (S&D) of future spent nuclear fuel (SNF) and other high-level radioactive waste (HLW) storage and disposal facilities unsuccessfully introduced hitherto in the U.S. Senate in 2013 (S.1240-IS) and 2015 (S.854-IS) to replace the Secretary of Energy's responsibilities under the NWPA, i.e., the OCRWM, would exacerbate rather than decrease the political control and financial chokeholds imposed upon the DOE/OCRWM in the past.

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In summation, to imply or suggest that the "Department" would be able to ensure a fair process for the S&D of future storage and/or disposal facilities for SNF and HLW fails to account for the related historical record.

2. *"What model and experience should the Department use in designing the process?"*

Put simply, "consent-based" is a qualitative term/concept lacking exactitude that accommodates a broad variety of amorphous interpretations. As elaborated upon in several of the attached WMS papers [1-5] and related slide presentations, the siting pre-process could be a never effort unless a measurable definition of "consent-based" is provided from the outset. One of several potential measurable-quantitative "consent-based" S&D models is described in a couple of the attached WMS papers and illustrated in the related slide presentations.

With regard to relevant experience, as suggested by the Blue Ribbon Commission on America's Nuclear Future (BRC) in 2011 and 2012, the voluntary-based S&D process for the Waste Isolation Pilot Plant (WIPP) transuranic radioactive waste (TRUW) repository in New Mexico, USA, and the societally-equitable repository S&D process designed and re-designed in Sweden based upon LOCAL public opposition and continuous involvement, embody particularly-relevant experiences, as do their respective licensing processes and the related parties involved in them (please also see question 3 for additional information).

Suffice it to also mention here that an acute experience issue in the USA is the continually diminishing availability of relevant domestic institutional subject-matter intellectual and hands-on professional resources. A large number of professionals involved during the past 30 years or longer in the S&D of deep geological disposal systems (repositories) for SNF and HLW (and TRUW) in the USA have retired or passed away. Furthermore, based upon the premise that valuable lessons can also be learned from failures, it should also be noted that the USA's only candidate SNF/HLW repository since 1987 at the Yucca Mountain site in Nevada, which may be considered by many to represent a domestic antithesis to "consent-based" S&D, have been on hold since 2010 and its implementing organization, the OCRWM, was de-staffed in 2011.

3. *Who should be involved in the process for selecting a site, and what is their role?*

As elaborated upon in several of the attached WMS papers and schematically illustrated in them and their related slide presentations, all interested parties residing legally in the USA should have the opportunity to access relevant information and expressed their respective opinion and

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concerns. However, the design and implementation of the S&D processes should be primarily governed by the opinions, concerns, and requests vested in the "directly affected parties" (DAPs). Admittedly, "directly affected parties" is also a qualitative term/concept that needs to be *timely* defined in measurable terms to be workable. One of several potential definitions of DAPs is described in a couple of the attached WMS papers and schematically illustrated therein and in the related presentations. Put simply, the S&D of future SNF and HLW storage and disposal sites should include the DAPs (includes the affected waste generators/title holders).

Suffice it to mention here that in Sweden, the local residents and authorities, as well as the national authorities and the elected representatives, were involved in the repository-siting process from the outset. Furthermore, the potential and candidate facility-host municipalities for the SNF repository, i.e., Laxemar and Forsmark, in the municipalities of Oskarshamn and Östhammar, respectively, were adequately funded from the outset to retain their own subject-matter experts throughout the siting process. They were also given the legal authority to unilaterally veto the siting of an SNF repository in their municipality, whereas adjacent and distant communities had to direct their respective concerns to one or more of the implementer (SKB), the regulator (SSM), their elected representatives at local and national levels, the National Council for Nuclear Waste, and, ultimately, if necessary, to the environmental court.

4. *What information and resources do you think would facilitate your participation?*

At the age of 77, my desire to actively participate in the S&D of future SNF and HLW disposal facilities in the USA is limited.

5. *What else should be considered?*

One inherent past and future key issue is the extensive lack of understanding among laypeople of the state-of-the-art concepts and issues involved in the string, design, development, construction, operation, decommissioning, and closure of a repository for long-lived radioactive waste. As emphasized in most of the attached papers, trust in the messenger has been and will continue to be important to public acceptance and project progress. As also summarized in most of the attached papers, the Department's related track record since 1983 is not conducive to building or establishing trust. As follows, the existing, long-standing and wide-spread, distrust in the Department and the Executive Office will be very difficult to mitigate/overcome. Promising the public things that subsequently cannot be delivered is not a viable solution.

Public Comment To Inform the Design of a Consent-Based Siting Process for Nuclear Waste Storage and Disposal Facilities" (IPC)

A starting point for re-building public trust in the Department would be to present a preliminary siting process, including a quantitative/measurable definition of consent-based siting, for review and comments, rather than collecting information from the general public on how the Department or another legal entity should conduct its siting and development mission.

ATTACHED DATA SOURCES ELABORATING UPON THE RESPONSES PROVIDED IN THE PRECEDING TEXT

1. WM2013 paper 13015 entitled "*Societal-Equity-Enhancing Criteria and Facility-Host Incentives Supporting Five Key Elements in the January 2012 Blue Ribbon Commission Report*". Prepared by Leif G. Eriksson, George E. Dials, and Critz H. George, and presented by Leif G Eriksson.
2. WM2015 paper 15103 entitled "*Status of HLW Disposal in the USA and Rational, Progressive, Paths Forward Based Upon Lessons Learned In the USA and Abroad Since 1973*". Prepared by Leif G. Eriksson and George E. Dials, and presented by George E. Dals.
3. WM2015 paper 15104 entitled "*Robust Disposal Concept, Uniform Regulations, and Trust in the Messenger; Three Fundamental Building Blocks for Consent-Based HLW-Disposal Solutions in the USA*". Prepared and presented by Leif G. Eriksson.
4. WM2016 Paper 16010 entitled "*Salt Rock – the 60-Year-Old Prodigy Host Rock for Consent-Based Disposal of Long-Lived Radioactive Waste*". Prepared and presented by Leif G. Eriksson.
5. WM2016 paper 16019 entitled "*U.S. Senate Bill S.854-IS – A Maladjusted Politicized Maze for Consent-Based Siting of New HLW-Repositories*". Prepared and presented by Leif G. Eriksson.

Notwithstanding some of the above listed data sources were co-authored with and presented by other professionals, and written permission was given by the Waste Management Symposia LLC (WMS) on June 29, 2016 (available upon request), for the U.S. Department of Energy (DOE) to publish the above WMS documents/files, the text and illustrations presented in them in support of this IPC, as well as this text, are solely attributable to Leif G. Eriksson. All related questions should thus be directed to him.

This IPC was prepared by and initially submitted by e-mail to consentbasedsiting@hq.doe.gov on June 15, 2016, and then edited and resubmitted with the previously missing data source 4 on June 30, 2016, by:

Leif G. Eriksson, Registered Professional Geologist 0437 in North Carolina

Salt Rock - the 60-Year-Old Prodigy Host Rock for Consent-Based Disposal of Long-Lived Radioactive Waste - 16010

Leif G Eriksson, Registered Professional Geologist
Nuclear Waste Dispositions, Winter Park, Florida, USA (nukewastedisp@gmail.com)

ABSTRACT

The USA's HLW-disposal program has been on hold since 2010 pending enabling legislation for its only candidate HLWrepository since 1987 at the Yucca Mountain site in Nevada and/or other, "consent-based", HLW-disposition solutions. Related projections in 2008 and 2012 suggested they might open 9-12 years and 35 years after being adequately enabled, respectively. In 2014, domestic HLW arisings exceeded the capacity of the candidate repository by >4,000 metric tons (MT) and they were projected to grow by 2,000-2,300 MT/year. One or more new HLW repositories are thus highly-likely in the future. In the meantime, ***the DOE should make every effort to promptly take title to civilian-generated HLW by other means.***

Historical evidence in the USA and abroad during the past 30+ years shows that all HLWrepository siting and development schedules and costs are governed by the inherent, intricate, relationships and related domino effects of the:

1. Maturity/robustness of the disposal concept;
2. Related levels of relevant domestic repository-sciences/engineering expertise, data, institutional knowledge, and applicable regulations;
3. Abundance and "ease" of physical access to potentially-suitable host-rock sites;
4. "Trust" in the implementing and regulating organizations;
5. Timely resolution of inevitable contentions and lawsuits;
6. Facility-host-acceptance level;
7. Timely and adequate enabling legislation, and therefore, *ultimately*, by
8. Prevailing POLITICAL WILL.

Based upon their respective status at the end of 2015, *salt rock still offers the most, but not the only, promising path forward for new, mined, HLW repositories in the USA, and ~5-km-deep boreholes offer the most-promising disposal-solution for small HLW containers/packages/pellets.*

INTRODUCTION

At the end of 2015, the USA's only candidate high-level radioactive waste (HLW)^a - repository since 1987 at the Yucca Mountain (YM) site in Nevada (Figure 1) [1-2] had been on hold since 2010 [3], pending enabling legislation for it and/or the consent-based siting and development (S&D) strategy for new HLW-disposition (storage and disposal) facilities recommended by the Blue Ribbon Commission on America's Nuclear Future (BCR) in January 2012 [4]. The focus of this paper is the

^a Although the definitions for UNF, SNF, and HLW differ in the USA and among countries, as used herein, the term HLW may include none, one, or both of them, as well as only one of U.S. civilian- (CHLW) and defense-generated (DHLW) HLW.

timely and cost-effective S&D of at least one new, “consent-based”, HLW repository based upon the following three main boundary conditions:

1. The December 2008 recommendation by then Secretary of Energy (Secretary) to the U.S. President and Congress [5] to start a new HLW-repository-siting program based on the sites evaluated under the Nuclear Waste Policy Act of 1982 (NWPA) [1] and abandoned by the Nuclear Waste Policy Amendments Act of 1987 (NWPA) [2] that left only the YM site (Figures 1 and 2).
2. The author’s active involvement in, monitoring of, and reporting on long-lived radioactive waste management and -disposition programs in the USA and abroad since 1978 [e.g., 6-20].
3. Potentially-suitable, domestically-abundant, rock types and mature, *global*, HLW-disposal concepts and their respective repository host rock at the end of 2015 deemed particularly promising to gaining and sustaining *majority local acceptance* of a new HLW repository host rock^b.

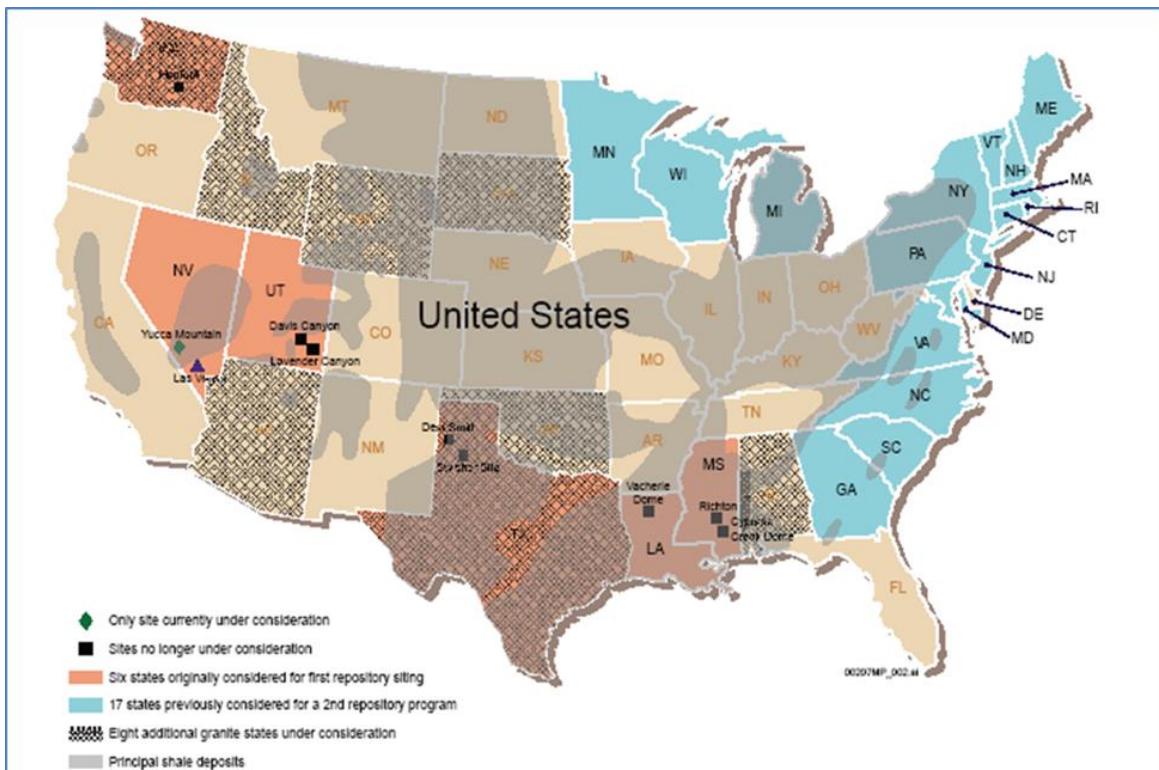


Fig. 1. Locations of the Yucca Mountain site and other sites, areas, and regions in the contiguous USA considered for HLW-disposal since 1982^c.

^b Although Belgium, Japan, and Switzerland have comparatively mature HLW-repository programs, including long-standing underground research laboratories, evaluating “clay”, they are not included herein, due to their repository being either situated close to the surface, in soil material, i.e., over-consolidated clay, or not scheduled to open before 2030.

^c The repository host rocks considered in the six states shown in orange were: basalt in WA; welded tuff/ignimbrite in NV; bedded salt in UT and TX, and domal salt in LA and MS. The second repository program (blue states) focused on igneous/crystalline rocks, also referred to as “granite”. But “shale” was not a rock type evaluated under the NWA [1]).

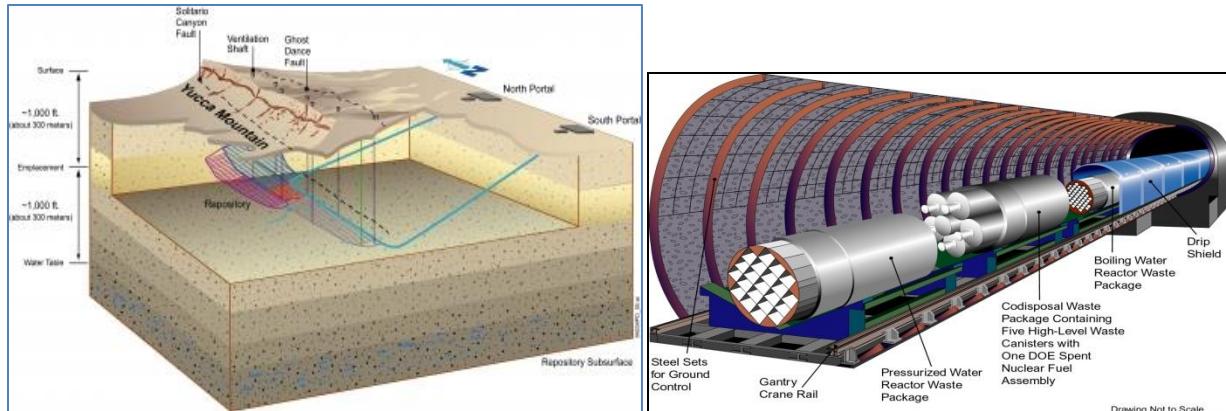


Fig. 2. Schematic illustration of the layouts of the Yucca Mountain HLW repository and its existing access tunnels and URL niches (left) and (right) the disposal-room and in-room HLW-emplacement concept.

Main observations, opinions, conclusions, and recommendations herein are typically accompanied by one or more Arabic numbers within brackets [1-36] that refer to the same-numbered data sources listed in full in the REFERENCE section. Internet links to some data sources are also provided within brackets in the text.

BACKGROUND

In 1957, following a 1955 conference, a U.S. National Academy of Sciences-National Research Council report on land disposal of **liquid** HLW concluded [21]:

- A. *"Radioactive waste can be disposed of safely in a variety of ways and at a large number of sites in the United States."*
- B. *"Disposal in cavities mined in salt beds and salt domes is suggested as the possibility promising the most practical immediate solution of the problem."*
- C. *"Disposal could be greatly simplified if the waste could be gotten into solid form of relatively insoluble character."*

In March 1999, a deep geologic repository in *bedded salt* for up to 175,584 m³ of solid-form, long-lived transuranic radioactive waste (TRUW), opened at the Waste Isolation Pilot Plant (WIPP) site in New Mexico (Figures 3 and 4) [e.g., 11-16]. But all other searches for a mined HLW repository in salt rock had been abandoned in stages by the end of 1987, as had those in all other rock types shown on Figure 1, except a thick sequence of volcanic ash layers at the YM site in Nevada [2]. The NWPA [1] limits the disposal capacity of the USA's first HLW repository to 70,000 metric tons (MT) of HLW [1]; subsequently projected to comprise ~ 90% commercially- (CHLW) and ~ 10% defense-generated (DHLW) HLW. As shown on Figure 2, the YM HLW repository would be situated in an ~ 100-m thick welded-tuff/ignimbrite located in the vadose zone ~ 300 m below the ground surface and above the regional groundwater table [e.g., 8,16,21]. Its construction license application (CLA) was submitted in June 2008 [22], but, similar to the U.S. Department of Energy (DOE), the U.S. Nuclear Regulatory Commission (NRC) has not been allocated funds since 2011 to complete the review of the CLA. The NRC's preliminary review did not identify any disqualifying condition.

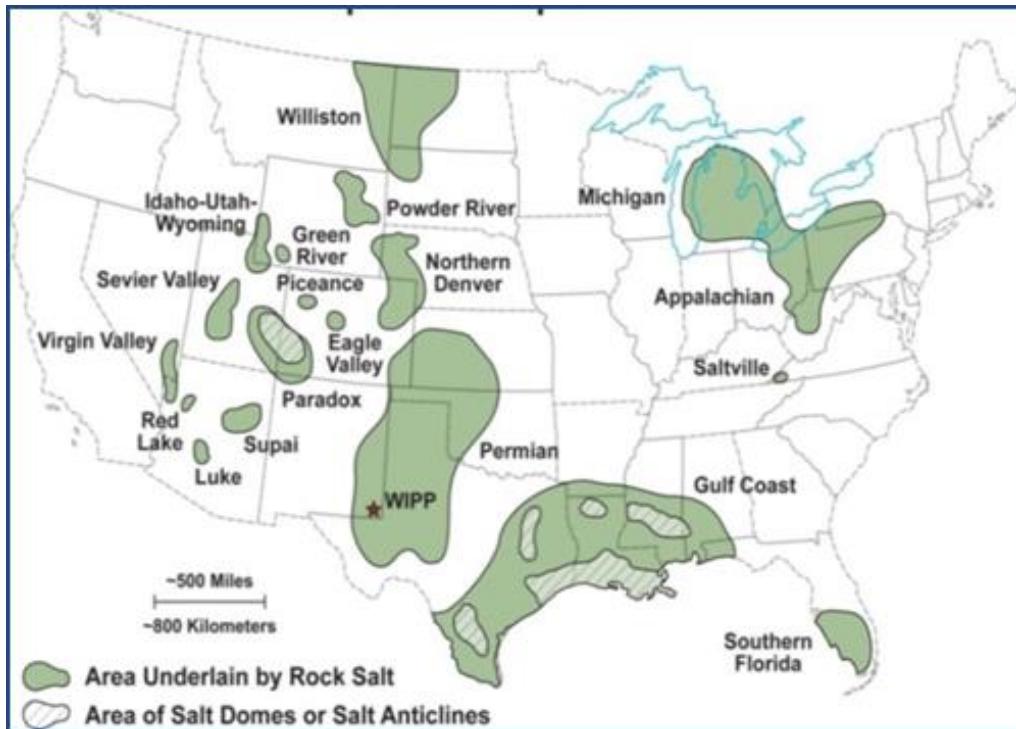


Fig. 3. Locations of the WIPP TRUW-repository site and major salt-rock deposits in the USA.

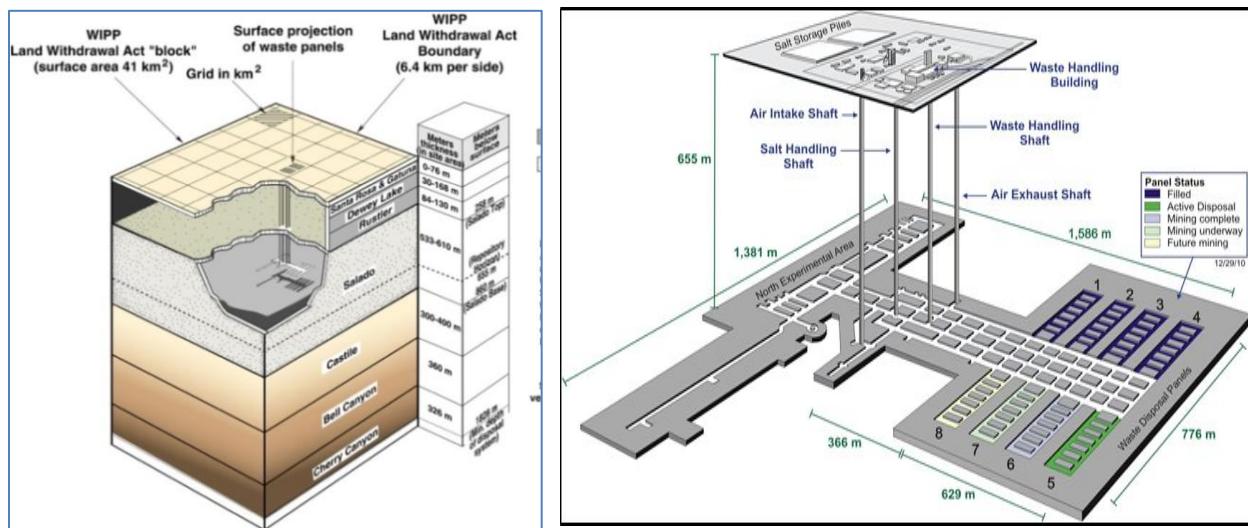


Fig. 4. Schematic (not to scale) illustrations of the 75 km³ geosphere set aside for the WIPP disposal system (left) and the layouts of the underground repository, the shaft pillar, and the North Experimental Area (URL).

In October 2014, the DOE recommended separate disposal paths for CHLW and DHLW [23], and its Office of Nuclear Energy (NE) is already evaluating deep borehole disposal (DBD) of DHLW at the end of 2015, adding uncertainty and complicating the projection of future HLW-disposal paths/options.

DESCRIPTIONS AND DISCUSSIONS

As schematically illustrated above on Figures 1-4, a large number of sites, areas, and regions in the USA with different rock types have been evaluated for geological disposal since the enactment of the NWPA in January 1983 [1] for their respective suitability to host a safe, mined, HLW-disposal solution. The ensuing descriptions and discussions begin with the author's understanding of the status of and prospect for HLW-disposal in the USA at the end of 2015, followed by those in the countries currently projected to open the worlds' three first HLW repository, i.e., Finland in 2023 (<http://www.posiva.fi>), France in 2025 (<http://www.andra.fr>), and Sweden in 2027 (<http://www.skb.se>). Concise descriptions of a few lessons learned in Finland and Sweden deemed particularly promising to expediting a future, consent-based, HLW-repository S&D process in the USA, if timely adopted, adapted, and funded are also presented. A summary of the author's main concerns about starting a new HLW-repository-siting program based solely upon the abandoned sites recommend by the then Secretary in 2008 [5] concludes the descriptions and discussions.

HLW-Disposal Status and Prospects in the USA at the End of 2015

Following in quasi-chronological order are descriptions and discussions of recent events and lessons-learned in the USA and abroad deemed to govern the status of and/or future prospects for HLW disposal in the USA at the end of 2015:

- A. ***In January 2012***, the BRC recommended a new national strategy/policy for the back end of the nuclear fuel cycle based upon eight "Key Elements" [4]. However, pursuant to directions received from the Obama administration, the BRC neither addressed the suitability nor the future of the YM site.
- B. ***In January 2013***, the then Secretary presented the Obama administration's BRC-related, 14-page, strategy [24]. It included, *unexplained*, projections that the USA's first "consent-based": a) Consolidated CHLW-storage facility would open "by 2025"; and b) CHLW-disposal facility would open "by 2048".
- C. ***Three rulings; one in 2012 [25] and two in 2013 [26-27]***, by the U.S. Court of Appeals for the District of Columbia Circuit (the A-Curt) included:
 1. Rulings the NRC and the U.S President were in violation with applicable law by stopping the CLA-review and the development of the YM HLW repository in 2010, respectively, and to continue evaluating and developing it until new legislation to the contrary had been enacted.
 2. References in [27] to the Secretary's 2013 strategy [24] as "truly pie in the sky" and "the strategy is based on assumptions directly contrary to law."
- D. ***Two virtually-identical efforts; one in June 2013 (S.1240-IS) [28] and one in March 2015 (S.854-IS) [29]***, had been made in the U.S. Senate to enact enabling legislation for the S&D of one or more, new, consent-based, HLW-disposition facilities by a new organizational structure, but ***none of them had been enabled or enacted by the end of 2015***. As understood by the author, two paradigms proposed in S.854-IS deemed of particular importance to the S&D of new HLW repositories are:
 1. A new organizational structure in the Executive Branch, referred to as the Nuclear Waste Management Administration (NWMA) and comprised by the Nuclear Waste Administrator (NWA) and the Nuclear Waste Oversight Board

(NWOB) would take over the HLW-disposition responsibilities assigned to the "Secretary" in the NWPA [1].

2. Consent-based S&D by the NWMA of one or more HLW-disposal facilities. As shown in TABLE I and elaborated upon in another WM2016 paper [30], the upper-managers of the NWA and the 5 members of the NWOB would be solely selected and appointed by the U.S. President with the advice and consent of the U.S. Senate. Figuratively speaking, the new organizational structure proposed in S.854-IS may be likened to leaving the old pig locked up and letting it starve to death, and replacing it with a piglet that has no life-experience, its legs tied together, and a ring through its nose with a golden chain connecting it to the White House and the Senate.

TABLE I. Independent Agencies in the Executive Branch and Related Positions and Terms of Service Proposed in S.854-IS [29].

Agency	Position	Selected and Appointed by	Term Limit
Nuclear Waste Administration (NWA)	Administrator	U.S. President and U.S. Senate	6 years ^a
	Deputy Administrator	U.S. President and U.S. Senate	6 years ^a
	Inspector General	U.S. President and U.S. Senate	No Limit
	General Counsel	The Administrator	No Limit
	Financial Officer	The Administrator	No Limit
	<4 Assistant Administrators	The Administrator	No Limit
	? Clerical staff	(TBD)	(TBD)
Nuclear Waste Oversight Board (NWOB)	Member #1 ^c	U.S. President and U.S. Senate	1 year ^d
	Member #2 ^c	U.S. President and U.S. Senate	2 years ^d
	Member #3 ^c	U.S. President and U.S. Senate	3 years ^d
	Member #4 ^c	U.S. President and U.S. Senate	4 years ^d
	Member #5 ^c	U.S. President and U.S. Senate	5 years ^d
	Executive Secretary	The Oversight Board	No Limit
	<11 Clerical staff	The Oversight Board	No Limit

^a May serve more than 1 term.

^b The U.S. President designates the Chair of the Nuclear Waste Oversight Board.

^c Not more than 3 members of the Nuclear Waste Oversight Board may be members of the same political party. But "3 members of the Oversight Board shall constitute a quorum for the purpose of doing business."

^d A member of the Oversight Board may be reappointed for an additional term by the President, by and with the advice and consent of the Senate.

E. **An October 2014 DOE report** [23] included the following Section 8(a) of the NWPA [1] compliant, yet groundbreaking, recommendations:

1. *"This report, therefore, recommends that DOE pursues options for disposal of DOE-managed HLW from defense activities and some thermally cooler DOE-managed SNF, potentially including cooler naval SNF, separately from disposal of commercial SNF and HLW."*
2. *"This report also recommends that DOE retain the flexibility to consider options for disposal of smaller DOE-managed waste forms in deep boreholes rather than in a mined geologic repository."*

F. **At the end of 2014**, the Nuclear Energy Institute (NEI) projected the amount of HLW destined for deep geological disposal exceeded the legal disposal capacity of the YM HLW repository [1-2,16] by 4,258 MT, and it would continue to increase at an annual rate of 2,000-2,300 MT until the government began disposing it [https://en.wikipedia.org/wiki/Nuclear_Energy_Institute]. As illustrated on Figure 5, **at the end of 2001**, there were already 131 sites in 39 states storing HLW destined for deep geological disposal. The number of sites storing HLW has likely increased during the ensuing 15 years and would likely continue to increase in the absence of an operating HLW repository.

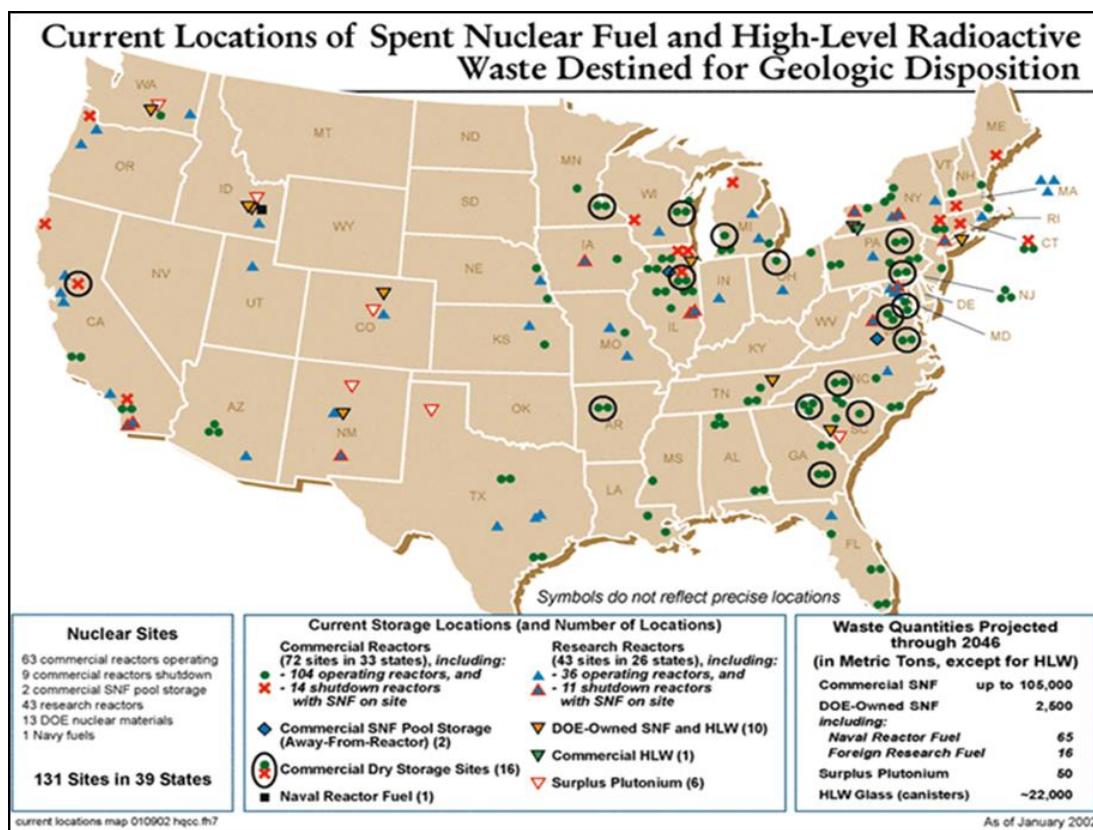


Fig. 5. Locations of 131 sites in 39 states storing HLW destined for deep geological disposal in January 2002.

Due to continually diminishing CHLW-storage capacity at the nation's Nuclear Power Plant sites, some nuclear utilities had already begun repackaging CHLW in dry-storage-containers (DSCs) and moving them to dry storage pads.

Clearly, more DSCs will be needed in the future, because the amount of CHLW was projected by the nuclear utilities in 2014 to continue to grow at an annual rate of 2,000 - 2,300 MT under their custodianship until the DOE begins taking title to it. Also, the DSCs shown on Figure 6 are 1.7 m in diameter, 4.72-5.38 m high, and weigh 49.2 MT, but they may not be the biggest or heaviest DSCs at the time a HLW repository opens. Contingent upon the size and/or weight of a given DSC, its transportation and emplacement options may be limited, unless it is re-opened and the HLW is repackaged in smaller and lighter containers; actions exposing workers and near-field environments to additional radiation risks and resulting in additional costs. Alternatively, the DSC may have to be transported on rail or on water, rather than by truck, to its off-site storage and disposal location. The DSC could also be limited to in-room emplacement (Figure 2) and require an inclined tunnel from the surface down to the emplacement location. A tunnel that would be at least six times longer than a shaft, penetrating and disturbing a larger portion of the geosphere.



Fig. 6. One type of dry-storage containers (DSCs) for HLW in the USA.

At the end of 2015, the USA's HLW-repository program was still on hold and its future was uncertain. Put simply, it seems to be caught in a tug of war between the U.S. President (= Executive Branch) and the Senate on one side with the House of Representatives on the other side as the anchors. In addition, further increasing the uncertainty, is that, despite the 2012 BRC [4] and the 2013 [28] and 2015 [29] Senate recommendations, the HLW-disposal program may be removed from the federal government. In the meantime, it seems as if the DOE is trying to gain control over the "consent-based" siting process by scheduling a kick-off meeting on this topic in January 2016. But regardless of the aforementioned turf battles, it is a virtual certainty that "consent" will govern the S&D of future HLW-disposition facilities [e.g., 4,24,29]. However, as opined in the accompanying WM2016 paper [29] and in other papers [e.g., 17-20], **consent** is qualitative term that needs to be defined both as to who's consent is needed and how to measure it before it is written into law to minimize the historical time-consuming and costly debates, contentions, and law suits.

HLW-Disposal Status and Prospects in the Finland, France, and Sweden at the End of 2015 and Lessons Learned in Finland and Sweden.

At the end of 2015, Finland, France, and Sweden are projected to open their respective first HLW-repository in 2023, 2025, and 2027. The HLW-repository host rocks are basement igneous/crystalline rocks, commonly referred as "granite", in Finland and Sweden, and argillite/mudstone, commonly referred to as "clay", in France.

Key features and lessons learned in the Finnish and Swedish programs [4,7,17, 31-33] that could increase initial acceptance among the directly affected parties (DAPs), and save time and cost to a new S&D process for HLW-repositories are:

1. They have long-standing, *fully-integrated, nuclear waste management programs* that are *successfully funded by the domestic nuclear utilities*, and managed by a jointly owned company; Posiva in Finland and SKB in Sweden. Whereas the government does not have a say in the planning or implementation of the day-to-day operations, it still has both the first and final say, because it approves both the proposed and final disposition solutions. These decisions are in large part based upon the recommendations provided by the respective domestic regulators and the legal entities involved. For example, on **12 November 2015**, the Finnish government approved the construction license for Finland's HLW repository on the Olkiluoto Peninsula and the Swedish regulator, the Swedish Radiation Safety Authority (SSM) (<http://www.stralsakerhetsmyndigheten.se>) had advised the Swedish Congress on the need for increasing the Nuclear Waste Fund rate charged the nuclear utilities, which was accepted in 2015. SSM also advised the Congress and others on 17 November 2015 that it agreed with the SKB on the selection of Forsmark in the Municipality of Östhammar as the "best" final candidate sites for the Swedish HLW repository.
2. In the 1980s, Finland **adopted** the vertical HLW-emplacement version of the Swedish KBS-3 concept (KBS-3V) shown on Figure 7 and related lessons learned in the then more advanced Swedish HLW-repository program. It then **adapted** it to domestic conditions and also continued to collaborate with Sweden, enabling jointly-focused and cost effective research, development, and demonstrations, in turn, increasing public acceptance in both countries. Both programs currently benefit from >60% support in their respective "final" HLW-repository-host-communities, i.e., Eurajoki in Finland, and Östhammar in Sweden.
3. During the past 25+ years, their prospective HLW-repository-host communities have had a definitive say in the S&D and licensing processes, including veto right [7,17-20,31-33]. In Sweden, they have also been provided financial resources to retain their own group of local and subject-matter experts [17-20].
4. Both the Finnish and the Swedish HLW-repository S&D programs have experienced delays and cost-increases, as have all other national HLW-repository-siting programs. But no other nation has experienced delays of the duration (>29 years) or cost increases of the magnitude experienced hitherto in the USA, which brings to attention a couple of past root causes to these setbacks that also must be addressed and mitigated in a future, consent-based, HLW-repository-siting program:

- a. Majority acceptance in facility-host entities, including sovereign nations, must be verified before potential and candidate site locations are announced and selected, respectively.
- b. Majority acceptance and support must be maintained in potential and candidate facility-host entities throughout the S&D process.
- c. The implementing organization must be trusted by the facility-hosts.
- d. The applicable regulations cannot be tailor-made to a given site.

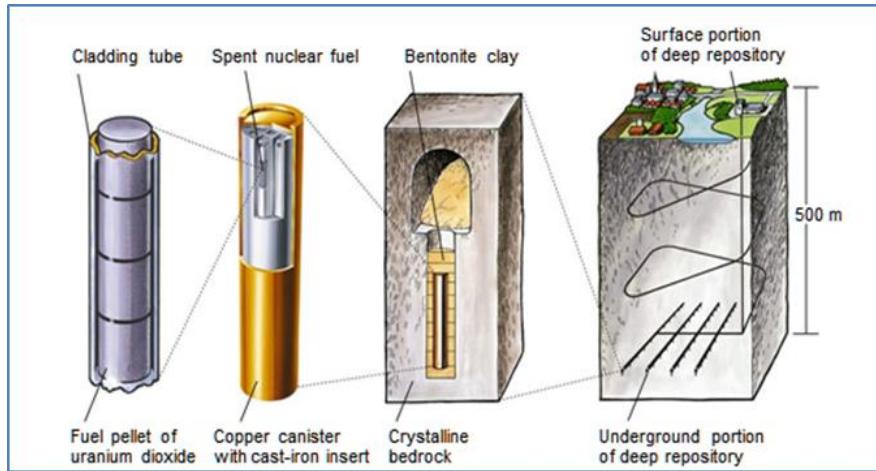


Fig. 7. Schematic illustration of the KBS-3V HLW-disposal concept.

Main Author Concerns at the End of 2015 About Starting a New HLW-Repository Siting Program Solely Based on the Sites Abandoned by 1988.

Concisely described and discussed below are conditions not addressed in the Secretary's 2008 report [5] deemed by the author to be particularly important to the timely and cost-effective S&D of a new HLW repository in the USA. They are based upon his multi-year direct involvement in the basalt site on the Hanford Reservation (BWIP) that included the construction of and in-situ-tests in an underground research laboratory (URL) [6], the evaluation of the three domal salt sites (Cyprus Creek, Richton and Vacherie), and one of the two "granite" regions shown on Figure 1, and >11 years of post-1992 involvement in the WIPP site (Figures 3 and 4) that included its 1998 certification, and 1999 opening [11-15].

1. *The local support and opposition in the respective host states and municipalities and among other DAPs at the time these sites were abandoned or any other reason for their respective abandonment.* To the best of the author's recollection, all seven salt-rock sites shown on Figure 1 were opposed locally at the time they were abandoned. For example, ***the candidate Deaf Smith County HLW repository was situated under one of the largest aquifers in the USA, the Ogallala***, which had raised considerable local, state, and adjoining-states concerns. Also, even if local acceptance was not a decisive criterion before 1988, it most definitely has become one in the USA at the end of 2015, as well as in many other countries, e.g., Canada, Germany, Sweden, Switzerland, and the U.K. Put simply, it is now the basic criterion for S&D of new HLW-disposition facilities proposed in the USA since 2012 [e.g., 4,24,29, 31-33].

2. *The 2008 status of the related domestic-state of repository geosciences and geoengineering expertise, data, and lessons learned for any of the proposed starter sites.* To the best of the author's recollection **the only two abandoned sites having exploratory boreholes extending down to the respectively proposed repository level/depth were the BWIP and the Deaf Smith County sites** (Figure 1), of which **only BWIP had designed, conducted, and analyzed, large-scale, in-situ tests in an operating URL** [6]. But, in order for people to be able to work in the proposed **BWIP**-repository for more than a couple of hours, a refrigeration plant would be needed, due to the **high ambient temperature**. Also, many of the retrieved basalt cores exhibited extensive, "spontaneous", post-retrieval, disking. **Core-disking** is indicative of very-high differential (deviatoric) principal stresses that will affect the size, shape, and stability of man-made openings located in such rock portions. These portions would likely require structural support to ensure worker safety and disposal-hole stability. **Whether the aforementioned, as well as any other, site-specific data can be found for the aborted sites 30 years or more after they were abandoned remains an issue** based on the author's mid-1990 experiences, when both the author and his counterpart project manager at Battelle Memorial Institute (BMI) independently failed to locate data and records pertaining to the "Core Aging Study" on salt rock cores conducted and reported on by the Earth Technology Corporation in support of the USA's HLW-repository program in mid-1980.
3. *The ravages of time since 1987 on domestic availability of relevant and, in particular, state-of-the-art, repository-sciences/engineering expertise and data.* Optimistically assuming the siting of a new HLW repository commences in 2018, **30 years would have passed since the USA was engaged in a domestic, site-specific, characterization for a HLW-repository other than in the volcanic ash layers at the YM site and the salt beds at the WIPP site** [e.g., 34]. The **related natural attrition** will inevitably make domestic professionals with relevant repository-sciences and -geoengineering education and hands-on experiences, in other rock types much scarcer, if even available.

As follows, **this author sees no apparent advantage in solely reviving and evaluating the sites recommended by the then Secretary in 2008** [5].

MAIN OBSERVATIONS, CONCLUSIONS, AND RECOMMENDATIONS

At the end of 2015, the USA's beleaguered HLW-disposal program had been on hold since 2010 and its future was uncertain, because, contingent upon pending legislation, the USA may have one or more legal paths forward for HLW disposal to choose from. However, whereas continuing developing the YM HLW repository can be accomplished by allocating additional funds under existing laws [1-2], the S&D of any other HLW-disposal solution would require the enactment of new law(s) and, likely, new regulations. Also, the legislation proposed in S.854-IS for the S&D of new HLW-disposition systems [29] differs significantly from and partially overlaps and conflicts with the current legislation for the YM HLW repository [1-2,30].

Based upon the historical record, the political will has been inadequate since before 1 February 1998 to enact and enable legislation addressing/mitigating existing and

projected challenges. It will likely remain inadequate or vetoed throughout and, perhaps, beyond the reign of the current administration. But, for reasons very conclusive to the author, one day in the future, by default, disaster, or Homeland Security reasons or to honor international commitments and obligations [e.g., 35], enough nationally-elected representatives will step up to the plate and face the job-security/re-election challenge embodied in enacting enabling legislation facilitating safe and secure disposition of existing and a substantial portion of its pending HLW. In the meantime, **a measureable, preferably quantitative, definition of "consent-based"** S&D could save both time and money. Other conditions also deserving attention before a law for consent-based S&D of new HLW-dispositions is enacted include:

1. At the end of 2015, the statutory-mandated, no-later-than-31 January-1998, opening of the YM HLW repository [1] was already > 17 years overdue. Federal-tax payers therefore pay "breach of contract" penalties to the nuclear utilities, currently amounting to ~ \$500 M per year, on behalf of the government *until it takes title to CHLW*. The total amount of the "breach of contract" penalties was estimated by the nuclear utilities in 2014 to reach \$30.6 billion in 2028. As follows, **time is of essence to the federal-tax payers. It could also still be of essence to the USA's international reputation and standings.**
2. Pursuant to existing law [1], the Secretary, i.e., the government, has had the option since January 1983 to store and thereby take title to up to 1,900 MT CHLW. But, although the DOE Office of Environmental Management (EM) has safely stored DHLW on several government-owned and -operated sites since early 1940, it still does not store any CHLW on any of them. As indicated by the September 2015 House Bill H.3643 [36], the DOE may be given the option to also take title to CHLW stored on a privately-owned and -operated site. However, in light of where existing HLW-storage-facilities and -experience resides at the end of 2015, **it seems much easier, less time-consuming, and more logical and secure to amend the NWPA and increase the amount of CHLW that can be stored on government-owned and -operated sites**, even if they don't currently host a HLW storage facility. Indeed, the prompt opening of one or more large, expandable, CHLW-storage facilities on government-owned and -operated sites in jurisdictional entities willing to host them could drastically expedite the government taking title to 1,900 MT CHLW. In the meantime, a storage capacity increase could be pursued whilst the search for one or more new HLW-disposal solutions takes place. A large, expandable, operating CHLW-storage facility would be particularly valuable if the YM HLW repository program remains stuck in its current political quagmire or fails to comply with applicable regulations or is terminated by law in the future.
3. Notwithstanding a large number of sites in the USA have been considered for safe disposal of HLW since 1983, few of them were subjected to site-specific investigations extending down to and below the proposed repository elevation and related performance and safety assessments/analyses (PSAs). Also, only volcanic ash sequences and bedded salt formations have been investigated and evaluated during the past 28 years. Furthermore, **even if it has been done for other rock types in the past, due to the ravages of time, relevant data, models, and repository-sciences and -geoengineering experts may be**

scarce and in some cases not-to-be-found on other HLW-repository host-rocks than those at the YM and the WIPP sites, i.e., welded tuff/ignimbrite and bedded salt, respectively.

4. The YM HLW repository has faced hitherto insurmountable political opposition since 1988 and, even if it survives both current and pending contentions, socio-political and legal challenges, and applicable licensing requirements, the limited vertical and horizontal extents of its host rock might limit a future increase in its disposal-capacity, unless the thermal loading per unit area is increased, which, in turn, would cause very-challenging domino effects [9-10,16,19] if the distance to the compliance point is not increased again [16,20]. Furthermore, *adequately-thick and -laterally-extensive volcanic ash layers with suitable material properties are very scarce in the USA*. As follows, **vitrified ash layers do not seem to be promising prospects for a new HLW repository**.
5. In contrast, as illustrated on Figure 3, *thick, laterally-extensive salt-rock deposits are abundant in the USA, among which the WIPP site and other areas with adequately thick, and laterally-extensive salt rock are particularly promising paths forward based on available domestic data and state-of-the-art expertise*. Actually, the WIPP site was evaluated for HLW disposal by Sandia National Laboratories (SNL) from 1975 well into 1990 [e.g., 8, 11-15,34] on behalf of another DOE office, i.e., EM, than that evaluating the suitability of the sites abandoned by 1988, i.e., the 2011-dissolved Office of Civilian Radioactive Waste Management (OCRWM), which could explain why the WIPP site was not included in the 2008 recommendations [5]. Be that as it may be, the historical record for WIPP since 1975 strongly suggests a carefully-sited repository in bedded salt will contain and isolate long-lived radioactive waste even under very-unrealistic, statistically-based, straight-lined, hypothetical, very-low-probability, human-intrusion, scenarios with less than 1/3 of the maximum distance allowed between the perimeter of the waste and the regulatory control points (5 km) than that allowed at the YM site (> 15 km). Also, the results of the tests conducted in support of the aforementioned Core Aging Study on domal salt cores strongly indicated that even under confined, climatically-controlled, conditions, with time, rock salt experiences micro-cracking, stress relaxation, and increased permeability/hydraulic conductivity. This may sound bad, but it simply means that **rock salt data used in PSAs based on old salt cores likely depict worse than the prevailing conditions**.

Peeking at what the rest of the world is doing, the repository-host rocks in the most mature/advanced foreign HLW-disposal programs at the end of 2015 were:

1. **"Granite"** in Finland and Sweden, i.e., **basement igneous/crystalline rocks**.
2. **Sedimentary rocks** in France composed predominantly of indurated clay particles and commonly referred to as "argillite/mudstone" and "clay".
3. **Salt domes/anticlines** in Germany. Despite a recent hold on the continued development of the Gorleben HLW-repository to allow other rock types to be evaluated, German scientists have conducted and analyzed a suite of state-of-the-art tests on salt and continue to collaborate with WIPP and SNL scientists.

In summation, when the domestic state-of-the-art in each of the aforementioned three rock types are also duly accounted for, the overriding conclusion is that **salt**

rock is still by far the most promising host rock for safe disposal of both large amounts and large packages of long-lived radioactive waste, due to:

1. The abundance of large salt deposits in the USA.
2. The inherent material characteristic of salt.
3. The domestic abundance of relevant state-of-the-art data, experts and experiences. In particular, those gained, maintained, and being continually updated since 1975 at and adjacent to the WIPP site (Figures 3 and 4).
4. SNL's long-standing and still ongoing international collaborations with German HLW-disposal experts.
5. The already expressed willingness of one state with significant salt rock deposits to consider hosting a HLW repository.

However, when the uncertain future of the USA's HLW disposal program is added, for multiple-reasons, ***at the end of 2015, the still most pressing federal-tax payer issue to resolve is means to transfer the title of CHLW to the DOE.***

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Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste



Presented by Leif G. Eriksson
()

On 9 March 2016
At the WM2016 Conference
Held in Phoenix, Arizona, USA
On 6-10 March 2016

Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste

DISCLAIMER



Findings, opinion, comments, conclusions, and recommendations presented today are:

- *Only attributable to the presenter;*
- *Based upon his understanding of current and proposed (S.854-IS) legislation in the USA, and related global historical imperatives for making timely progress on the S&D of HLW-disposition solutions;*
 - *Often generalized and simplified; and*
 - *Virtually certain to change with time.*

Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste

Main Topics

- A. Prospects and statuses** at the end of 2015 in nations with long-standing, state-of-the-art, programs for the siting and development (S&D) of mined HLW repositories.
- B. Lessons learned** in the USA and abroad the past 30+ years that, conceivably, could be adopted and adapted to advantage in the USA to earn the public and political acceptance and sustained support required for timely progress on “consensual” S&D of new HLW-repositories.
- C. Conclusions and recommendations.**

Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste



A. End of 2015 Prospects and Statuses - USA

1. The USA has two main HLW streams:
 - A. Commercially-generated (CHLW); and
 - B. Defense/government-generated (DHLW).
2. More than 70,000 metric tons (MT) of HLW was stored at 140 sites in 39 states pending the opening of the USA's first HLW repository - projected to increase by 2,000-2,300 MT per year (MT/a).

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- End of 2015 Prospects and Statuses - USA
 - 3. Federal-tax payers currently pay the nuclear utilities “breach-of-contract” penalty fees until the USA’s first CHLW-disposal or “centralized” CHLW-storage facility opens, or the government takes title to it by other means - currently ~\$500 million per year (M/a) and estimated to total >\$20 Billion (B) in 2020 and >\$30 B in 2028.
 - 4. Pursuant to the Nuclear Waste Policy Act of 1982 (NWPA), the Secretary of Energy can take title to CHLW by opening one or more “centralized” 300-1,900-MT HLW-storage facilities located on government-owned and -operated sites.

Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste

A. End of 2015 Prospects and Statuses - USA

3. The HLW-disposal program had been in politically-induced coma since 2010 and it will remain in deep sleep until enabling legislation is enacted for one or more of the following prospects:

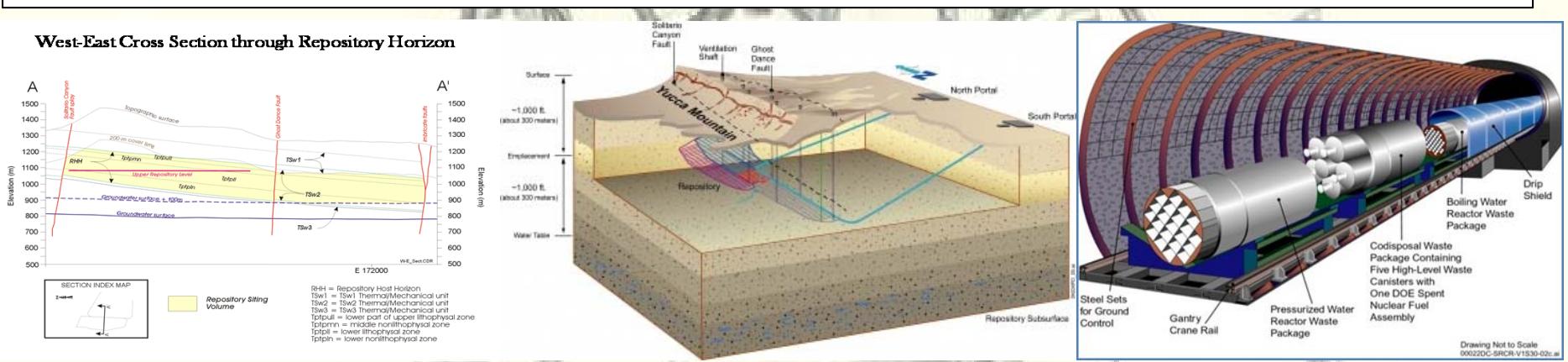


1. The Yucca Mountain (YM) HLW repository.
2. The consensual S&D process for new HLW-disposition (storage and disposal) facilities proposed in the March 2015 U.S. Senate Bill, S.865-IS.
3. Deep borehole disposal (DBD) (addressed in WM2016 sessions 029 and 089B).

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A. End of 2015 Prospects and Statuses - USA

Schematic illustrations of the YM site stratigraphy, and the layout and the disposal concept for its proposed HLW repository*



* Globally unique host rock (tuff) and disposal concept (>200 m above the regional ground-water table and high thermal loading with near-field temperatures >150° C.

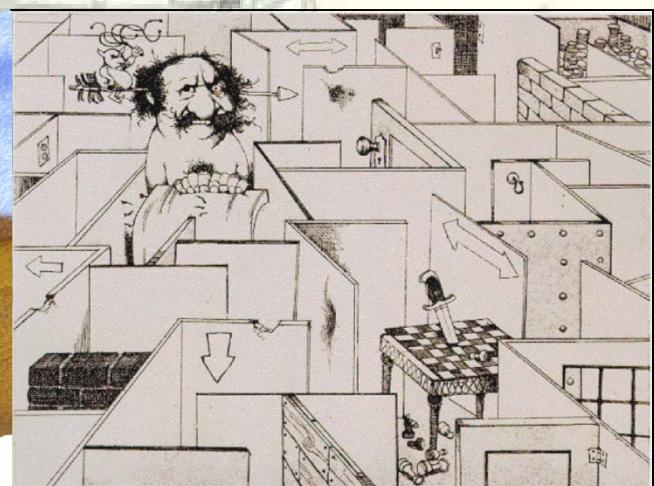
Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste

The Presenter's Pictorial Understanding of the Statuses of the USA's two Mined HLW-disposal Prospects at the End of 2015

The YM HLW Repository



Proposed U.S. Senate
Bill S.854-IS
(addressed in paper 16019)



Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste

A. End of 2015 Prospects and Statuses - Global

□ The nations deemed closest to commence HLW-disposal in a mined repository were:

1. Finland (2024) - (<http://www.posiva.fi>)
2. France (2025) - (<http://www.andra.fr>)
3. Sweden (early 2030) - (<http://www.skb.se>)
4. The USA (2027-2030?*)

* Between 9-12 years after the enabling legislation for the YM HLW repository had been enacted and the implementing organization had been revived - assumed here to be the case by 2018. Another HLW repository would open 23-26 years later.

Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste

A. End of 2015 Prospects and Statuses - Global

- ❑ The repository host rocks in the four nations deemed closest to commence HLW disposal were:
 1. Finland (2024) - *Igneous/crystalline* basement rocks and commonly referred to as "**granite**".
 2. France (2025) - *Sedimentary rocks* composed predominantly of indurated clay particles and commonly referred to as "**argillite/mudstone**" and/or "clay".
 3. Sweden (early 2030) - *Igneous/crystalline* basement rocks. i.e., "**granite**".
 4. The USA (2027-2030?) - Lithified volcanic ash ("**tuff**").
- ❑ In addition, both Germany and the USA had state-of-the-art experts and experiences in **salt rock**.

Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste



B. Lessons Learned

Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste

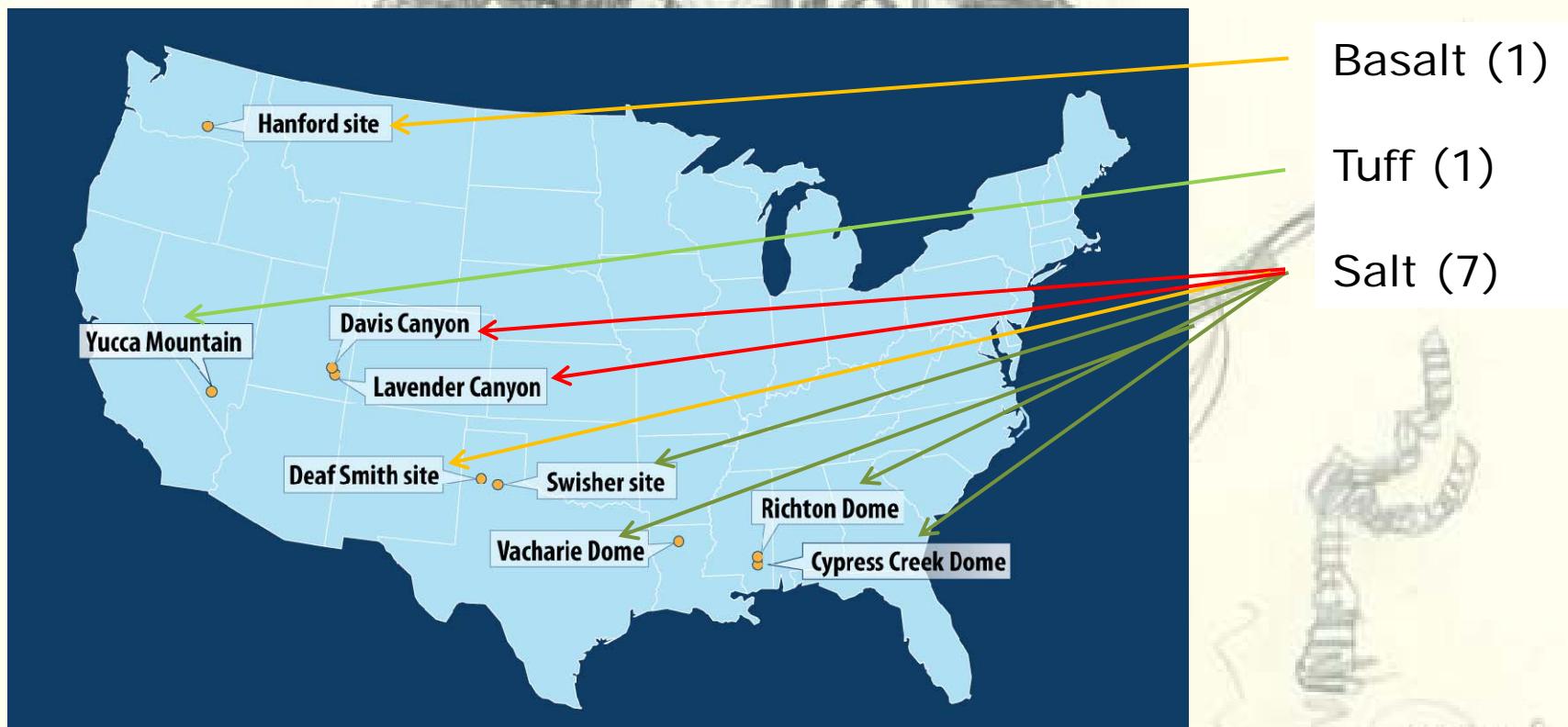


B. Lessons Learned - Conditions Governing Progress

1. *Maturity/robustness of the disposal concept;*
2. *Related levels of relevant domestic repository-sciences/engineering expertise, data, institutional knowledge, and applicable regulations;*
3. *Abundance and “ease” of physical access to potentially-suitable host-rock sites;*
4. “Trust” in the implementing and regulating organizations;
5. Timely resolution of contentions and lawsuits;
6. Facility-host-acceptance level;
7. Timely and adequate enabling legislation, and therefore, *ultimately*, by
8. Prevailing POLITICAL WILL.

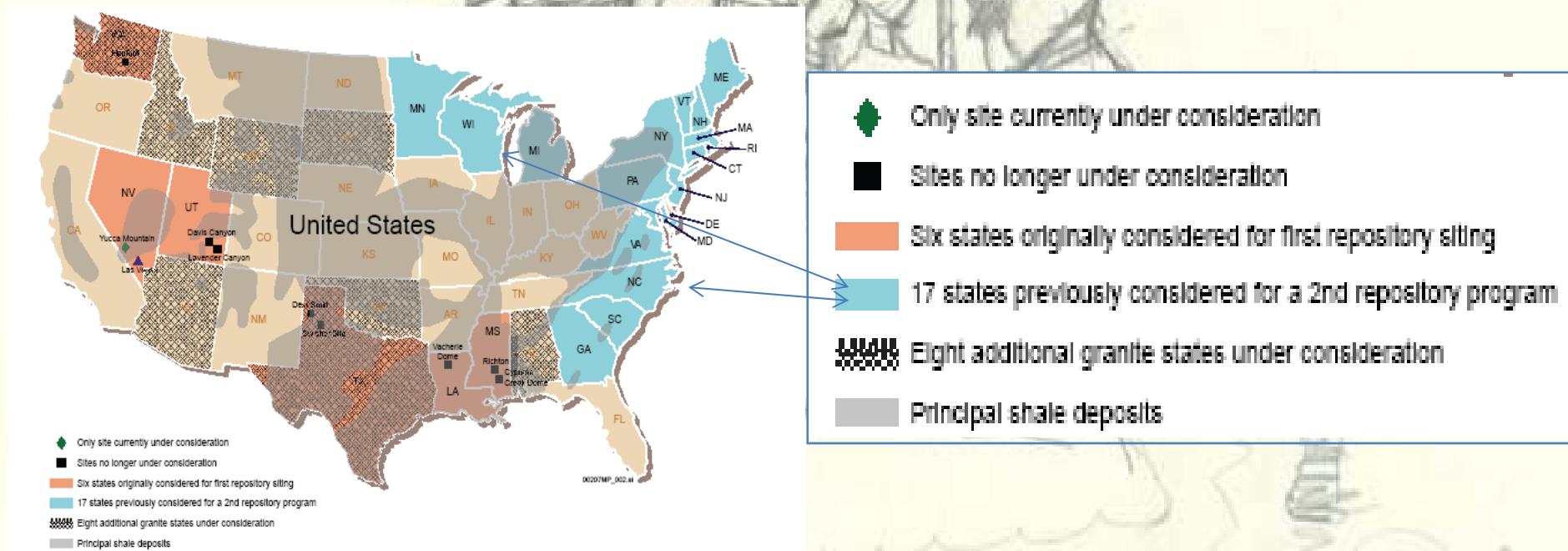
Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste

B. Lessons Learned - Sites Evaluated for the USA's First HLW Repository Between 1983 and 1987.



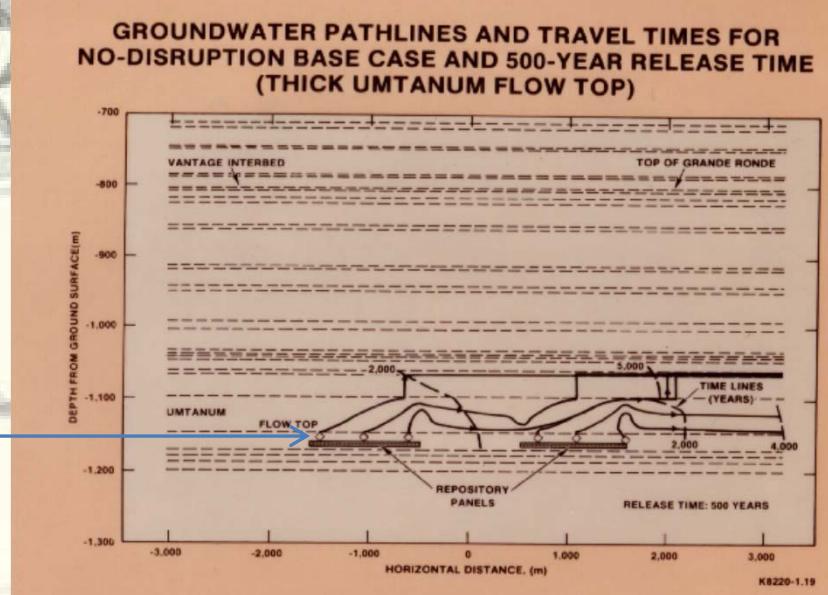
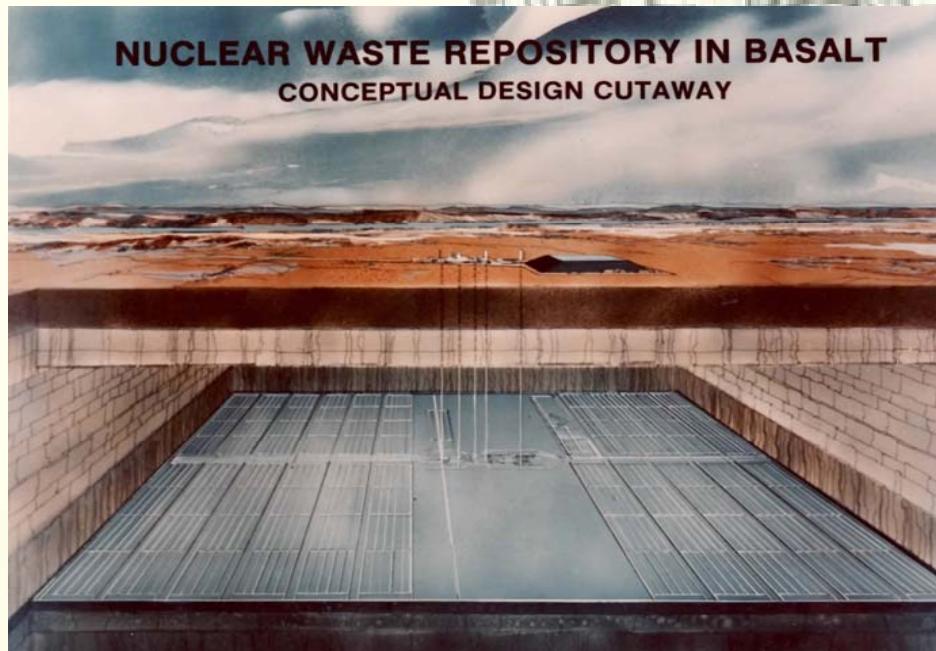
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B. Lessons Learned - States Evaluated for the USA's Second HLW Repository Between 1983 and 1987.



Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste

B. Lessons Learned - The Basalt Waste Isolation Project (BWIP) 1976 - 1987



Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste

B. Lessons Learned - Basalt cores from BWIP borehole DC-4 on the Hanford Reservation



1,036 - 1,038 m
(3,398 - 3,406 ft)



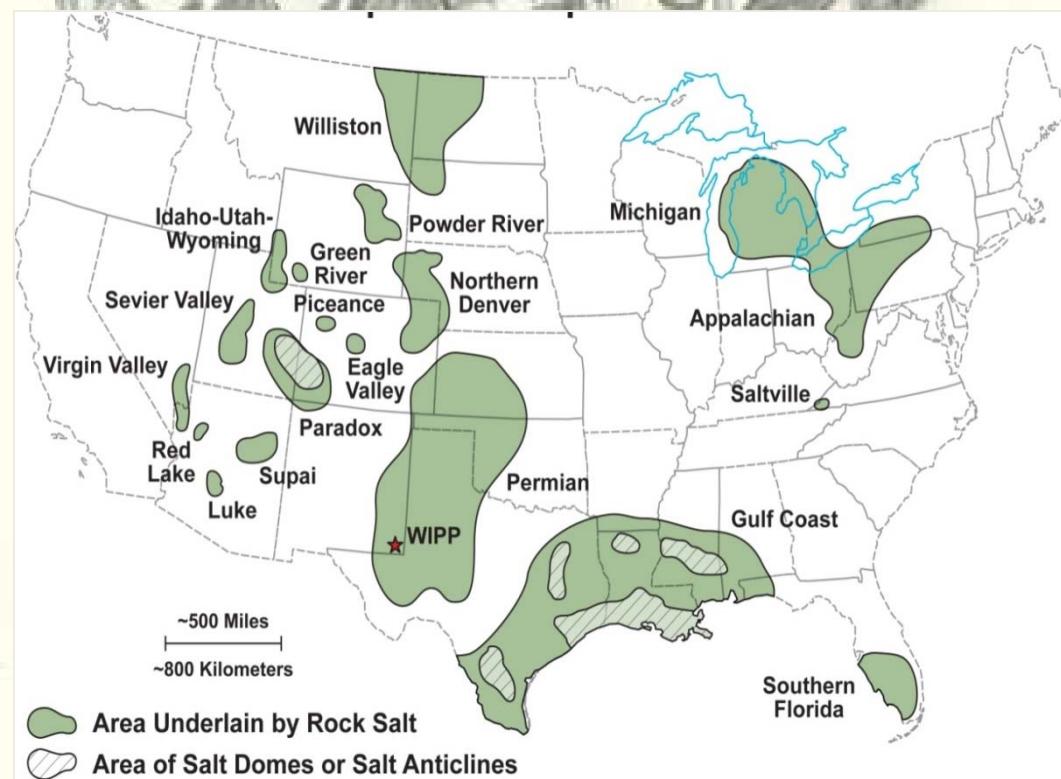
1,130 - 1,137 m
(3,708 - 3,730 ft)



1,186 - 1,884 m
(3,891 - 3,899 ft)

Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste

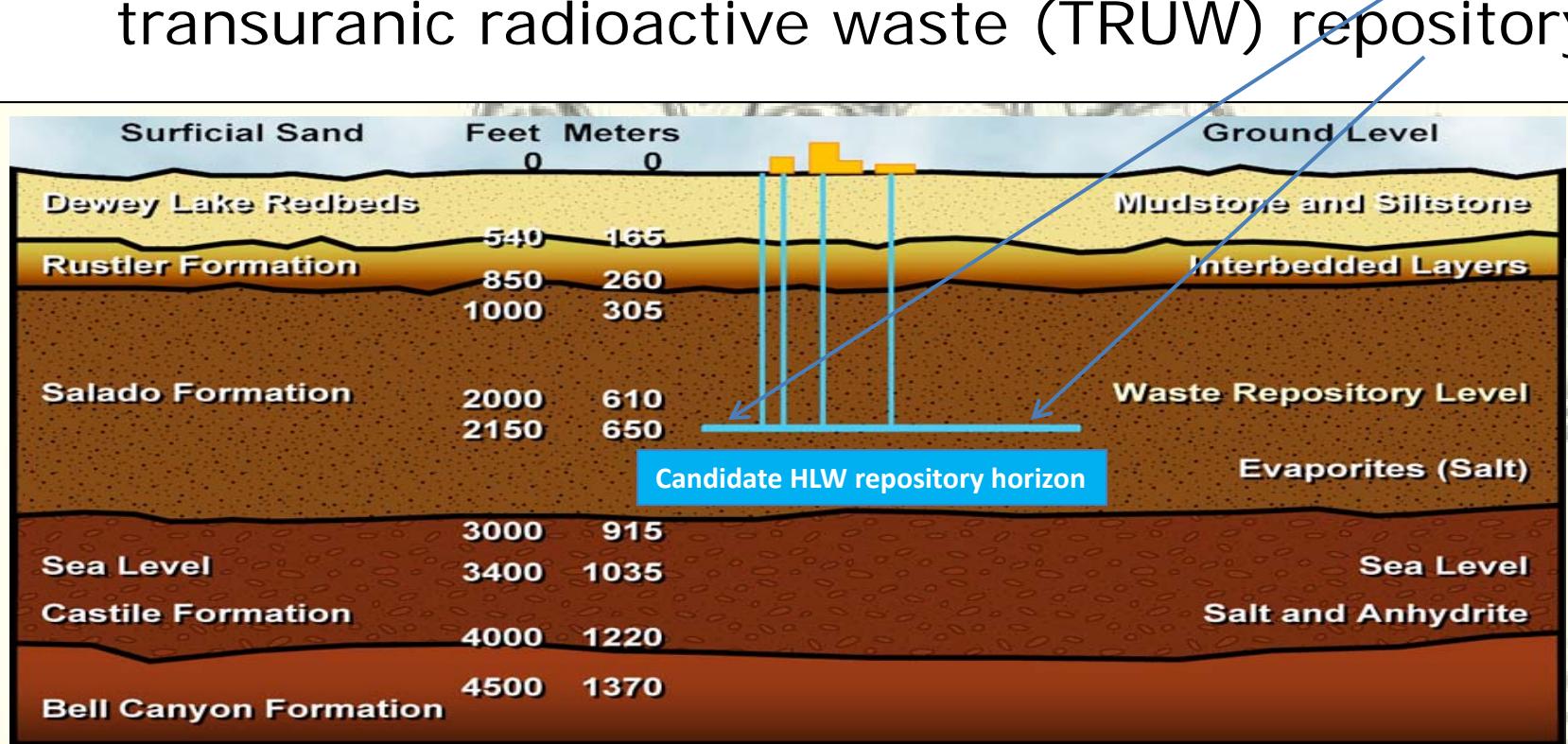
B. Lessons Learned - Salt Rock Deposits Evaluated for Safe Disposal of HLW, including the Waste Isolation Pilot Plan (WIPP) site (1983- ????).



Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste

B. Lessons Learned - WIPP

N-S cross section of the WIPP site showing main formations and the four shafts the adjoining URL, and transuranic radioactive waste (TRUW) repository.



Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste

B. WIPP

One of the in-situ tests conducted in the WIPP URL
in support of HLW-disposal evaluations.

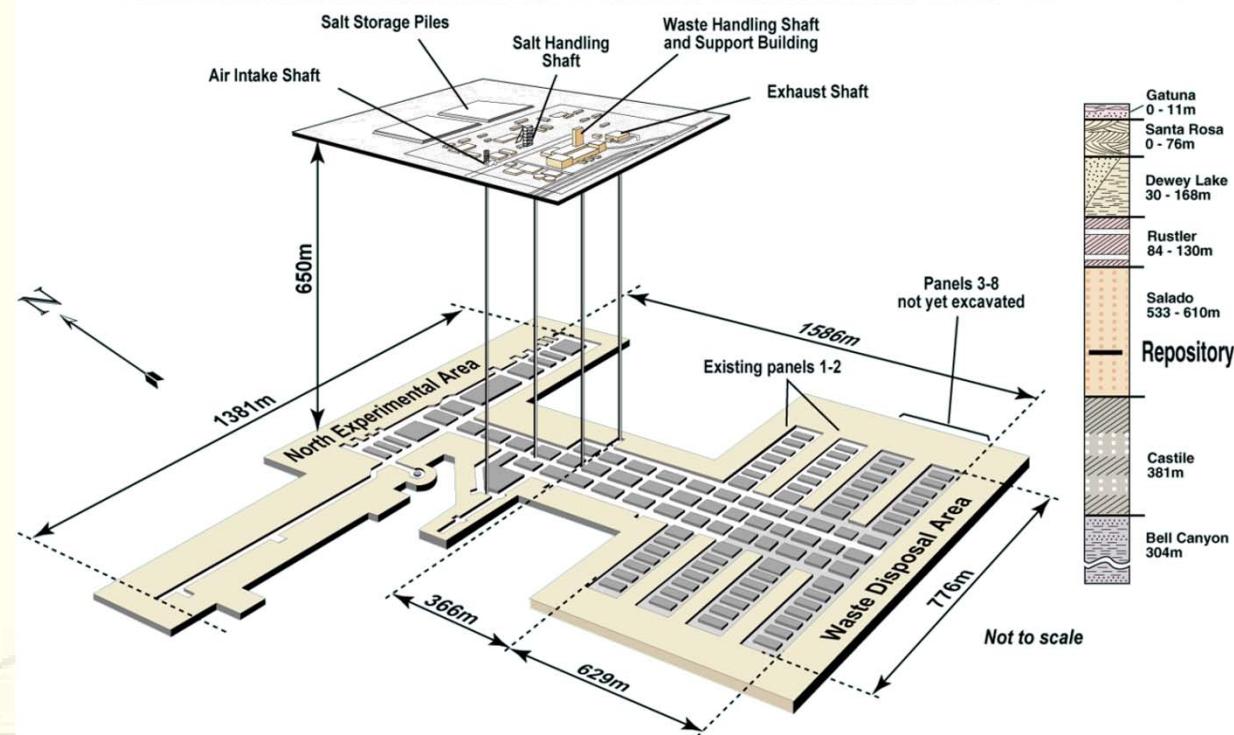


Sandia
National
Laboratories

Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste

B. WIPP

Schematic illustrations of the layouts of the URL and the TRUW repository.



Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste

B. WIPP

Disposal Room
(~3-m-high, ~10-m-wide, and ~100-m long.)



Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste



C. Conclusions and Recommendations



Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste

C. Conclusions and Recommendations

1. Simply stated, the most “promising”, i.e., best understood, HLWrepository host rocks in the USA at the end of 2015 were:
 - a. “Tuff”;
 - b. “Salt Rock”,

followed by:

 - c. “Basalt”; and
 - d. “Granite”.

Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste

C. Conclusions and Recommendations

2. Also simply stated, the most “promising”, i.e., best understood, HLWrepository host rocks abroad were:
 - a. “Granite”.
 - b. “Argillites/mudstones”
 - c. “Salt Rock”.

Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste

C. Conclusions and Recommendations

3. Main reasons for considering salt the most promising host rock in the USA for the S&D of new, "consent-based", HLW repositories:
 - a. The abundance of large salt rock deposits in the USA.
 - b. Its favorable material-properties and -characteristics, that could be even more favorable than assumed in the past based on the results of a mid-1980 "Core Aging Study".
 - c. The abundance of relevant, state-of-the-art, repository-sciences and -engineering data, experts and experiences that are being continually updated since 1975 at WIPP and include still ongoing international collaborations with German HLW-disposal experts.

Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste

C. Conclusions and Recommendations

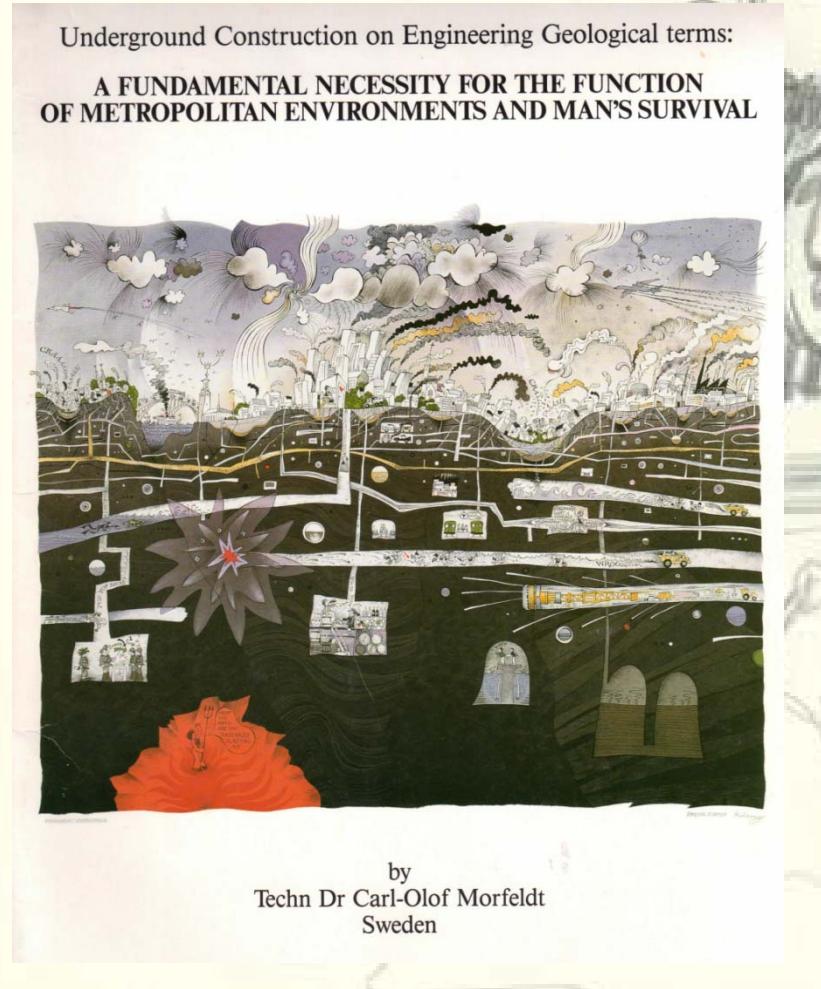
4. The future of both the YM HLW repository and the "consensual" S&D of a new HLW repository are uncertain and *the opening of the USA's first HLW repository could be more than 35 years away*. For those and other reasons elaborated upon in papers 16010 and 16019, "centralized" CHLW storages allowing the government to take title to CHLW should be promptly pursued and, at the expense of a new law, if necessary, because it would, *inter alia*,:
 - a. Reduce the "breach-of-contract" financial burden on the federal-tax payers; and
 - b. Allow time for the design of a new, "bottoms-up-driven" Senate Bill and/or House Bill for the S&D of "consensual" HLW repositories, preferably including a "consensual" re-entry to the YM site.

Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste



*Thank you for your attendance and
attention.*

Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste



*"The art is not to
overmaster nature by
means of technology but
- with a deeper
knowledge of geology -
to adapt engineering to
nature."*

Carl-Olof Morfeldt (1985)

Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste

Supplementary slides

Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste



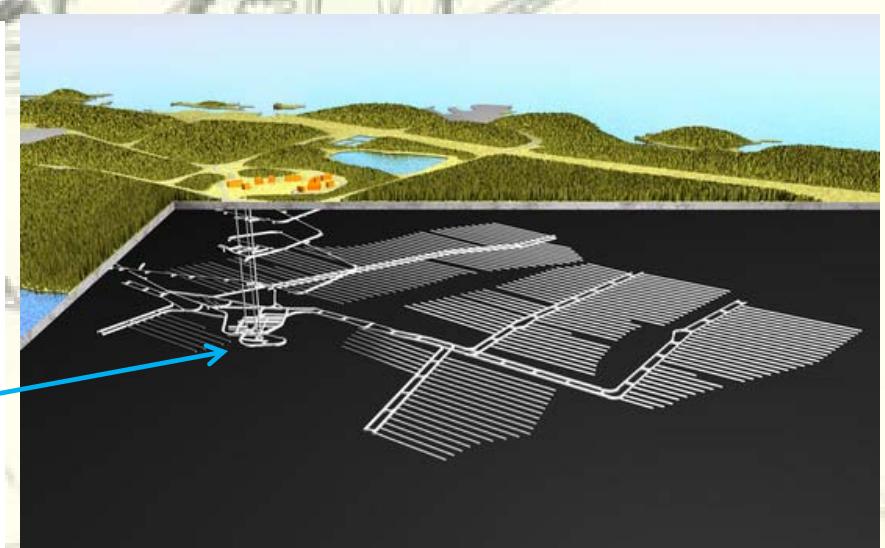
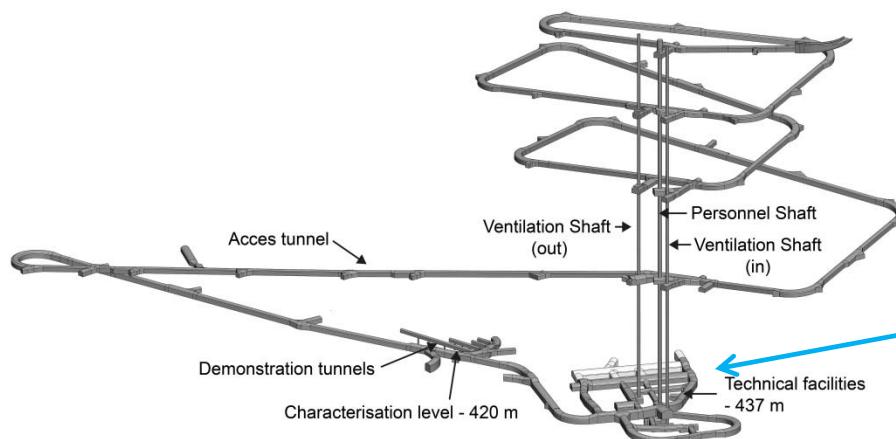
A. End of 2015 Prospects and Statuses - Finland (described further in paper 16507 in Session 121)

1. In November 2015, the Finnish Parliament ratified Posiva's 2012 construction license application (CLA) for a deep geological repository in "granite" for 6,500 metric ton (MT)/~ 3,000 canisters of SNF and an adjacent encapsulation plant at the Olkiluoto site in the Eurajoki municipality (<http://www.posiva.fi>).
2. *Both facilities are projected to open as the first of their respective kind in the world in 2024.*

Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste



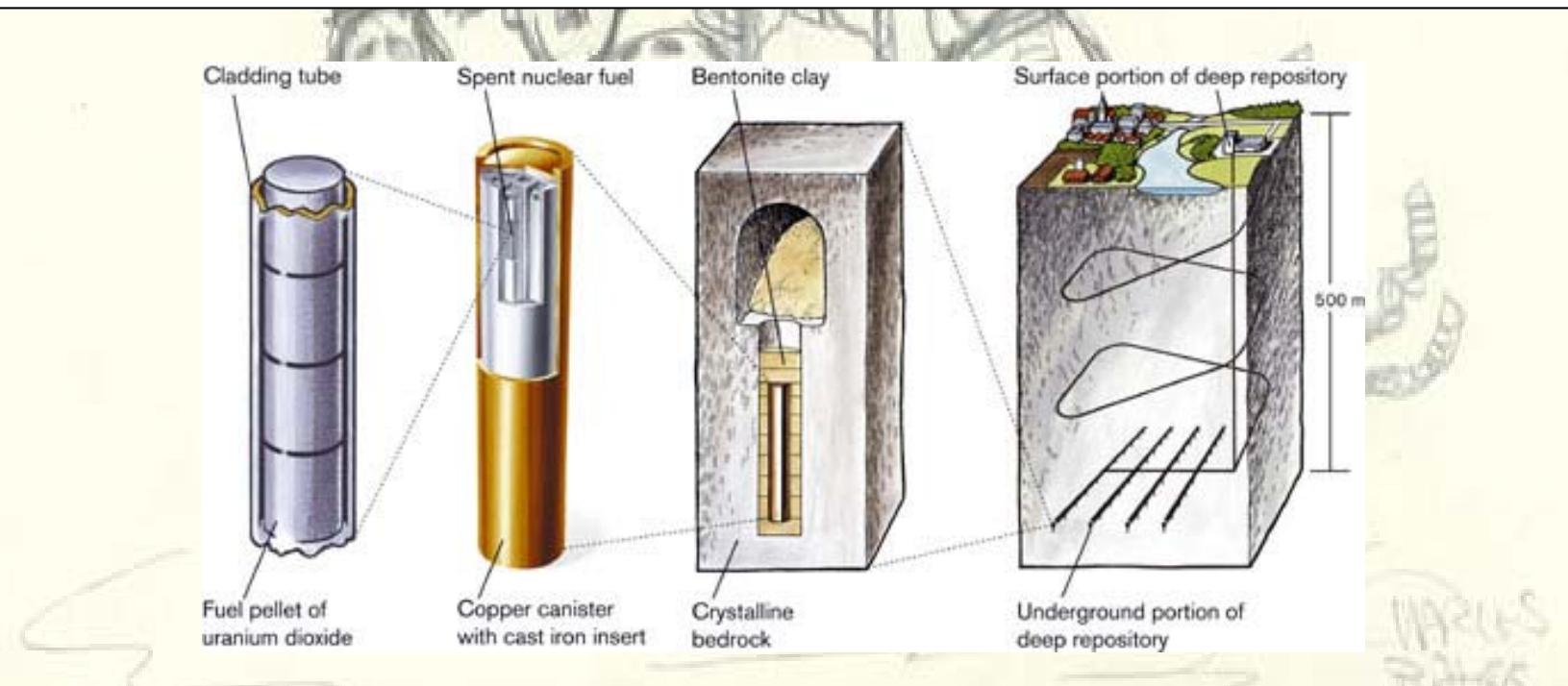
Schematic illustrations of the operating underground research facility (URL), ONKALO, and the layout of the planned SNF repository at the Olkiluoto site in Finland



Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste



Schematic illustration of the KBS-3V disposal concept pursued in Finland and Sweden



Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste

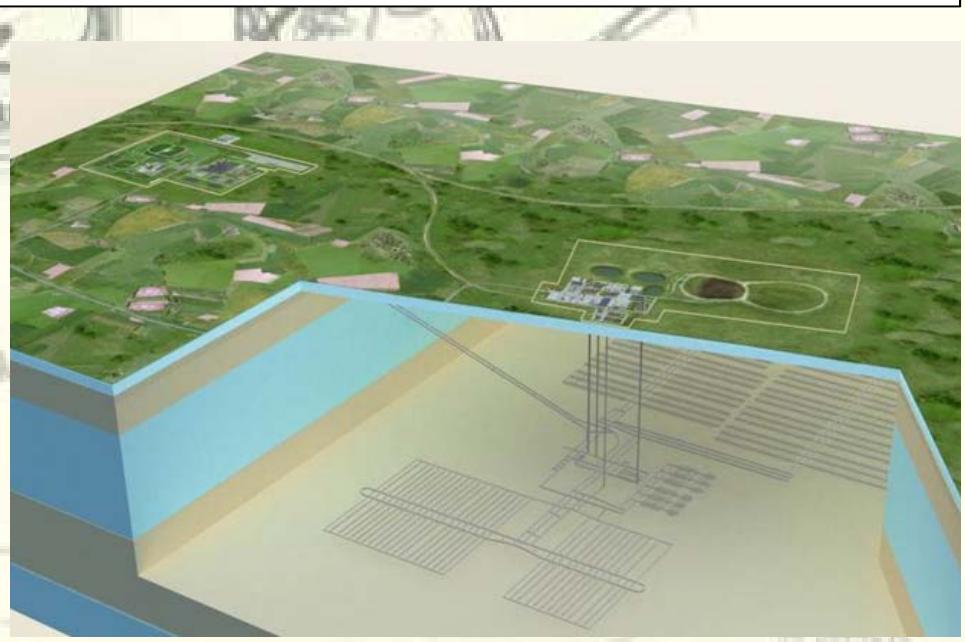
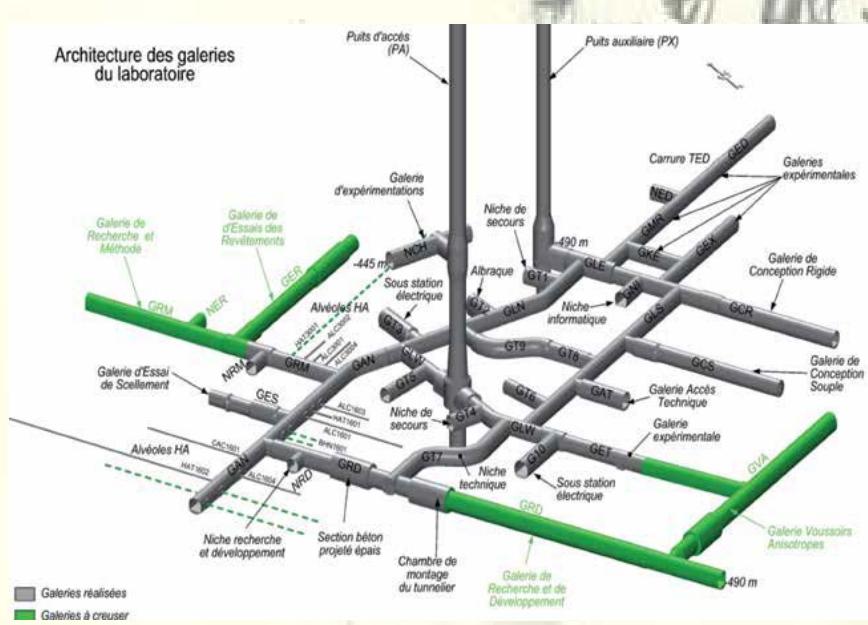


- A. End of 2015 Prospects and Statuses - France
(described further in several other WM2016 papers)
 - 1. The French nuclear waste management organization Andra operates a URL in sedimentary rocks at the Bure site in the Meuse/Haute Marne region since 2000 and will operate a near-by repository, *the Cigéo*, for disposal of 10,000 m³/60,000 LL-ILW containers and 73,500 m³/180,000 HLW containers (<http://www.andra.fr>).
 - 2. *Cigéo is projected to open in 2025.*

Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste



Schematic illustrations of the operating URL at the Bure site and the near-by LL-ILW and HLW repository, Cigéo.



Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste



A. End of 2015 Prospects and Statuses - Sweden

1. In December 2015, the Swedish Land and Environmental Court announced the SKB's 2010 CLA for a deep geological repository in "granite" for 12,000 MT/~6,000 canisters of SNF at the Forsmark site in the Östhammar municipality and an SNF-encapsulation plant in the Oskarshamn municipality was "complete" and released it for public comments ([http://www\(skb.se\)](http://www(skb.se))).
2. *Both facilities are projected to open in early 2030.*

Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste

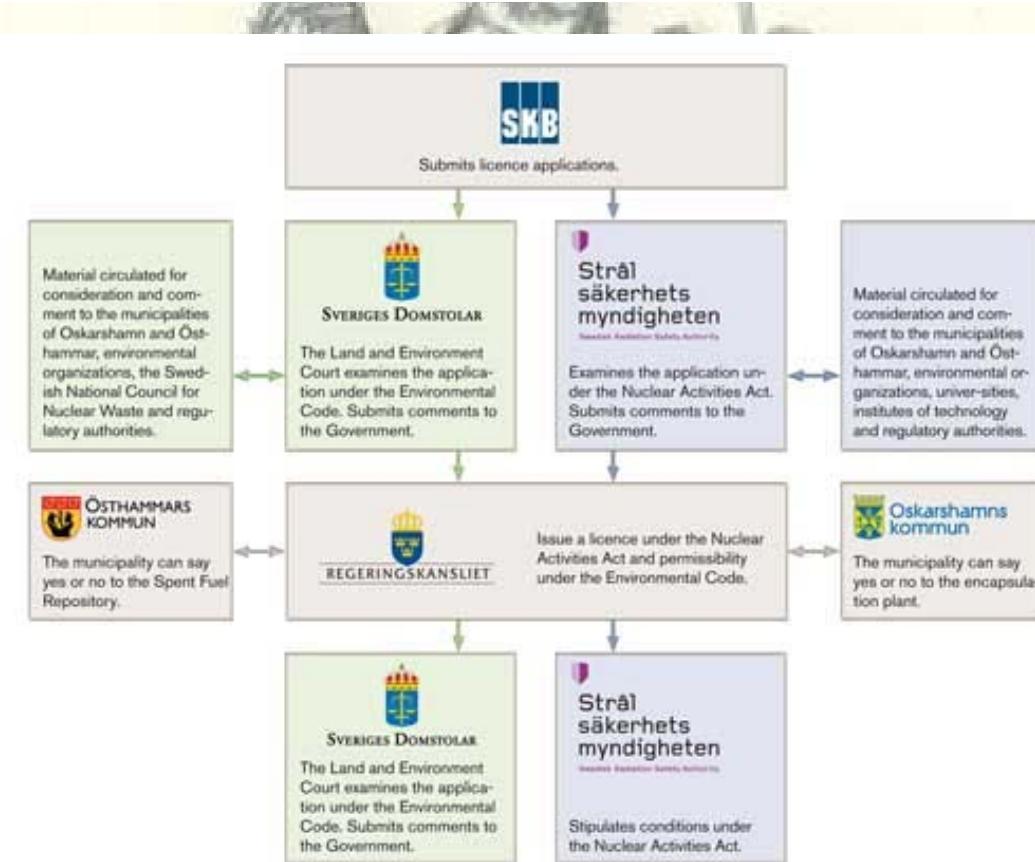


Schematic illustrations of the operating URL at the Äspö site, the integrated, centralized, SNF-storage and encapsulation facilities located in the Oskarshamn municipality, and the planned SNF repository located at the Forsmark site in the Östhammar municipality.



Salt Rock - the 60-Year-Old Prodigy for Consent-Based Disposal of Long-Lived Radioactive Waste

➤ The Swedish Licensing Process



Consent Based Siting

From: joseph
Sent: Tuesday, June 28, 2016 6:02 PM
To: Consent Based Siting
Subject: Response to IPC

To Whom It May Concern:

I am writing this letter as a very concerned resident and homeowner in San Clemente. I have public safety concerns over the burial of nuclear waste at San Onofre, SONGS. We are living under threats of terrorism. Storing nuclear waste near a densely populated area and adjacent to one of our largest U.S. military bases is asking for trouble. On another note, San Onofre and San Clemente are close to earthquake faults that run along the coast and inland. The burial of nuclear waste in any approved canister is unsafe. This nuclear waste needs to be removed, not stored for 25 years. By then, any containers will be hazardous to transport. I find it difficult to believe that our Federal Agency has not provided alternate burial sites for safe storage of nuclear waste. Please find a way to safely remove this nuclear waste from our backyard. Give our children and grandchildren a safe place to call home.

Consent Based Siting

From: Dave Baldwin
Sent: Tuesday, June 28, 2016 11:17 AM
To: Consent Based Siting
Subject: Response to IPC

To whom it may concern,

I have been a San Clemente resident for 16 years and I have concerns over the decommissioning of the San Onofre Nuclear Power Plant and how they want to store the 4,000 tons of radioactive waste.

I know several people who worked there and they tell stories of lack security, foul ups, and an over aged plant that spent \$670M on a band-aid repair to keep it running. We have 8.5M people living in a 50 mile radius along with our best military personnel (US Marines) in the world based outside it's gates. It's the Federal government's responsibility to deal with nuclear waste and shouldn't be taken lightly or the cheapest route, like the current proposal to bury it in steel canisters surrounded by concrete. We are than told that security cameras with monitor the area and periodic testing will take place. The company owner that makes the steel containers admitted that in time the canisters would leak. Let's not pass the buck on this and have a catastrophe in the future when more people migrate to the SC area.

It's time to make the right decisions and keep politics out of common sense approach. What decisions are made now have consequences for the future generations. Take a stand and do what is right for the people not for the owners of the power plant. They knew the risks getting into the business and now they have to help fray the costs. Every nuclear power plant being built today or aging must have an exit strategy to prevent this from happening again and again.

David Baldwin | SVP of Sales
[Immersion Technology Services/ELEARNINGFORCE Americas](#)

Microsoft Partner
Gold Collaboration and Content
Silver Cloud Productivity



Consent Based Siting

From: Stephen Weitz
Sent: Saturday, June 25, 2016 5:26 PM
To: Consent Based Siting
Subject: Response to IPC

Please consider Hardened on Site Storage for Nuclear waste (HOSS). We need to minimize risk. I am a biochemist and medical researcher. I have used radioactive tracers in research. They are very useful. But I also respect the risk of these long lived radio-isotopes. Please, do not move radioactive materials. Reduce risks by keeping them at current locations.

Dr. Stephen Weitz
Oakland, California

Consent Based Siting

From: Denise Gemma
Sent: Friday, June 24, 2016 4:45 PM
To: Consent Based Siting
Subject: Response to IPC - Decommissioning of SONGS nuclear facility

As a resident of San Clemente, CA, which is located adjacent to the San Onofre Nuclear Generating Station (SONGS) and is being decommissioned, we urge you to either stop the obstruction of the Yucca Mountain repository or find an interim storage solution for the 3.6 million pounds of nuclear waste that remains in the heart of our community!!

I understand you are collecting public input through July 31, 2016. It is critical to our community to ensure SONGS is prioritized in federal storage plans. The expedited removal of waste from SONGS is required by law and is paid for by local ratepayers.

Thank you.

Denise Gemma

San Clemente, CA

Consent Based Siting

From: Mark M Giese
Sent: Friday, June 24, 2016 1:11 PM
To: Consent Based Siting
Subject: "Response to IPC" [Invitation for Public Comment]

From Mark M Giese

Racine, WI

THE RUSH JOB TO

*DE
FACTO*

PERMANENT PARKING LOT DUMPS, FOR ALL THE WRONG REASONS:

We do not consent to DOE rushing into

*de
facto*

permanent parking lot dumps (so-called “entrailized” or
“onsolidated interim storage”, in order to
expedite the transfer
of title and
liability from the nuclear
utilities that profited from
the generation of high-level
radioactive waste,
onto the backs of taxpayers.

**No to FLOATING
FUKUSHIMAS
ON
SURFACE
WATERS.**

**No to MOBILE
CHERNOBYLS/DIRTY
BOMBS
ON
WHEELS.**

**No to ENVIRONMENTAL
INJUSTICE/RADIOACTIVE
RACISM.**

Thank you.

Consent Based Siting

From: Judi Poulson
Sent: Thursday, June 23, 2016 7:33 PM
To: Consent Based Siting
Subject: No Parking Lot Dumps

I am very much against parking lot dumps, Yucca dump and mobile Chernobyl/Floating Fukishimas/Dirty Bombs on wheels.

I have been to Belarus and helped people there with medicine, medical supplies and equipment who were affected by Chernobyl.

Don't do this!

Thanks.

Judi Poulson

Fairmont, MN
USA

Consent Based Siting

From: Rosenblums(pol1)
Sent: Thursday, June 23, 2016 3:26 PM
To: Consent Based Siting
Subject: Response to IPC

I urge the NRC to not dump waste in temporary locations but rather use a waste isolation process using dry casks in secure underground locations

THE RUSH JOB TO *DE FACTO* PERMANENT PARKING LOT DUMPS, FOR ALL THE WRONG

REASONS: We do not consent to DOE rushing into *de facto* permanent parking lot dumps (so-called “centralized” or “consolidated interim storage”), in order to expedite the transfer of title and liability from the nuclear utilities that profited from the generation of high-level radioactive waste, onto the backs of taxpayers.

FLOATING FUKUSHIMAS ON SURFACE WATERS: We do not consent to radioactive waste barge shipments on the lakes and rivers of this country, the fresh drinking water supply for countless millions, nor on the seacoasts. In addition to a disastrous radioactive release if the shipping container is breached, infiltrating water could spark a nuclear chain reaction, if a critical mass forms, due to the fissile U-235 and Pu-239 still present in the waste.

MOBILE CHERNOBYLS/DIRTY BOMBS ON WHEELS: We do not consent to high-level radioactive waste truck and train shipments through the heart of major population centers; through the agricultural heartland; on, over, or alongside the drinking water supplies of our nation. Whether due to high-speed crashes, heavy crushing loads, high-temperature/long duration fires, falls from a great height, underwater submersions, collapsing transport infrastructure, or intentional attack with powerful or sophisticated explosives, such as anti-tank missiles or shaped charges, high-level radioactive waste shipments, if breached, could unleash catastrophic amounts of hazardous radioactivity into the environment.

ENVIRONMENTAL INJUSTICE/RADIOACTIVE RACISM: We do not consent to the targeting, yet again, of low-income, Native American, and other communities of color, with high-level radioactive waste parking lot dumps. It is most ironic that President Obama’s Blue Ribbon Commission on America’s Nuclear Future, and his DOE, have yet again targeted Native Americans. Obama honored Sauk and Fox environmental activist Grace Thorpe for defending her reservation in Oklahoma against a parking lot dump, and then assisting allies at dozens of other reservations being targeted by DOE’s Nuclear Waste Negotiator. Obama praised Thorpe as a “Woman Taking the Lead to Save Our Planet,” alongside the likes of Rachel Carson of *Silent Spring* fame, in his March 2009 Women’s History Month proclamation. Similarly, Yucca Mountain, Nevada is Western Shoshone Indian land, as the U.S. government acknowledged by signing a treaty. In addition, Yucca is not scientifically suitable. It is an active earthquake zone, a volcanic zone, and water-saturated underground. If

waste is ever buried there, it will leak massively into the environment. And the State of Nevada has never consented to becoming the country's high-level radioactive waste dump.

SITES CURRENTLY AT THE VERY TOP OF THE TARGET LIST FOR *DE FACTO* PERMANENT

PARKING LOT DUMPS: We do not consent to the targeting of nuclear power plants, radioactive waste dumps, or DOE sites, already heavily contaminated with radioactivity and burdened with high-level radioactive waste, to become parking lot dumps for the importation of other sites' or reactors' wastes. DOE, NRC, and industry's top targets include Waste Control Specialists in Andrews County,

TX; Eddy-Lea Counties, NM, near DOE's Waste Isolation Pilot Plant; DOE's Savannah River Site, SC; Dresden nuclear power plant in Morris, IL; the list goes on. (continued over)

RISKS OF HIGH-LEVEL RADIOACTIVE WASTE STORAGE POOLS, AND NEED FOR

HARDENED ON-SITE STORAGE (HOSS): As just re-confirmed by the National Academies of Science, and Princeton U. researchers Von Hippel and Schoepfner, pools are at risk of fires that could unleash catastrophic amounts of hazardous Cesium-137 into the environment over a wide region. Since 2002, a coalition of hundreds of environmental and public interest groups, representing all 50 states, has called for expedited transfer of high-level radioactive waste from vulnerable pools into hardened dry casks, designed and built to last not decades but centuries, without leaking, safeguarded against accidents and natural disasters, and secured against attack.

NUCLEAR POWER AND HIGH-LEVEL RADIOACTIVE WASTE GENERATION: The mountain of radioactive waste in the U.S. has grown 70 years high, and we still don't know what to do with the first cupful. Radioactive waste may well prove to be a "trans-solutional" problem, one created by humans, but beyond our ability to solve. The only safe, sound solution for radioactive waste is to not make it in the first place. Reactors should be permanently shut down, to stop the generation of high-level radioactive waste for which we have no good solution

Dr Stephen Rosenblum, Ph.D. Nuclear Chemistry. UC Berkeley,

Consent Based Siting

From: caryn graves
Sent: Thursday, June 23, 2016 3:24 PM
To: Consent Based Siting
Subject: "Response to IPC" [Invitation for Public Comment]

We do not consent to DOE rushing into de facto permanent parking lot dumps (so-called “centralized” or “consolidated interim storage”), in order to expedite the transfer of title and liability from the nuclear utilities that profited from the generation of high-level radioactive waste, onto the backs of taxpayers.

We do not consent to radioactive waste barge shipments on the lakes and rivers of this country, the fresh drinking water supply for countless millions, nor on the seacoasts. In addition to a disastrous radioactive release if the shipping container is breached, infiltrating water could spark a nuclear chain reaction, if a critical mass forms, due to the fissile U-235 and Pu-239 still present in the waste.

We do not consent to high-level radioactive waste truck and train shipments through the heart of major population centers; through the agricultural heartland; on, over, or alongside the drinking water supplies of our nation. Whether due to high-speed crashes, heavy crushing loads, high-temperature/long duration fires, falls from a great height, underwater submersions, collapsing transport infrastructure, or intentional attack with powerful or sophisticated explosives, such as anti-tank missiles or shaped charges, high-level radioactive waste shipments, if breached, could unleash catastrophic amounts of hazardous radioactivity into the environment.

Thank you for your time and attention to this matter.

Sincerely,

Caryn Graves
Berkeley, CA

Consent Based Siting

From: Bryan Hurley
Sent: Thursday, June 23, 2016 3:14 AM .
To: Consent Based Siting
Subject: "Response to IPC"

I can not believe this is an expectable solution for San Onofre. The waist is being stored on our coastline, with rust issues, earth quakes and safety concern; not to mention, its proximity to the public and national defense at Camp Pendleton.

I hope our representatives will reconsider the negative effects and potential hazards and remove the nuclear waist.

Thank you,

Bryan Hurley

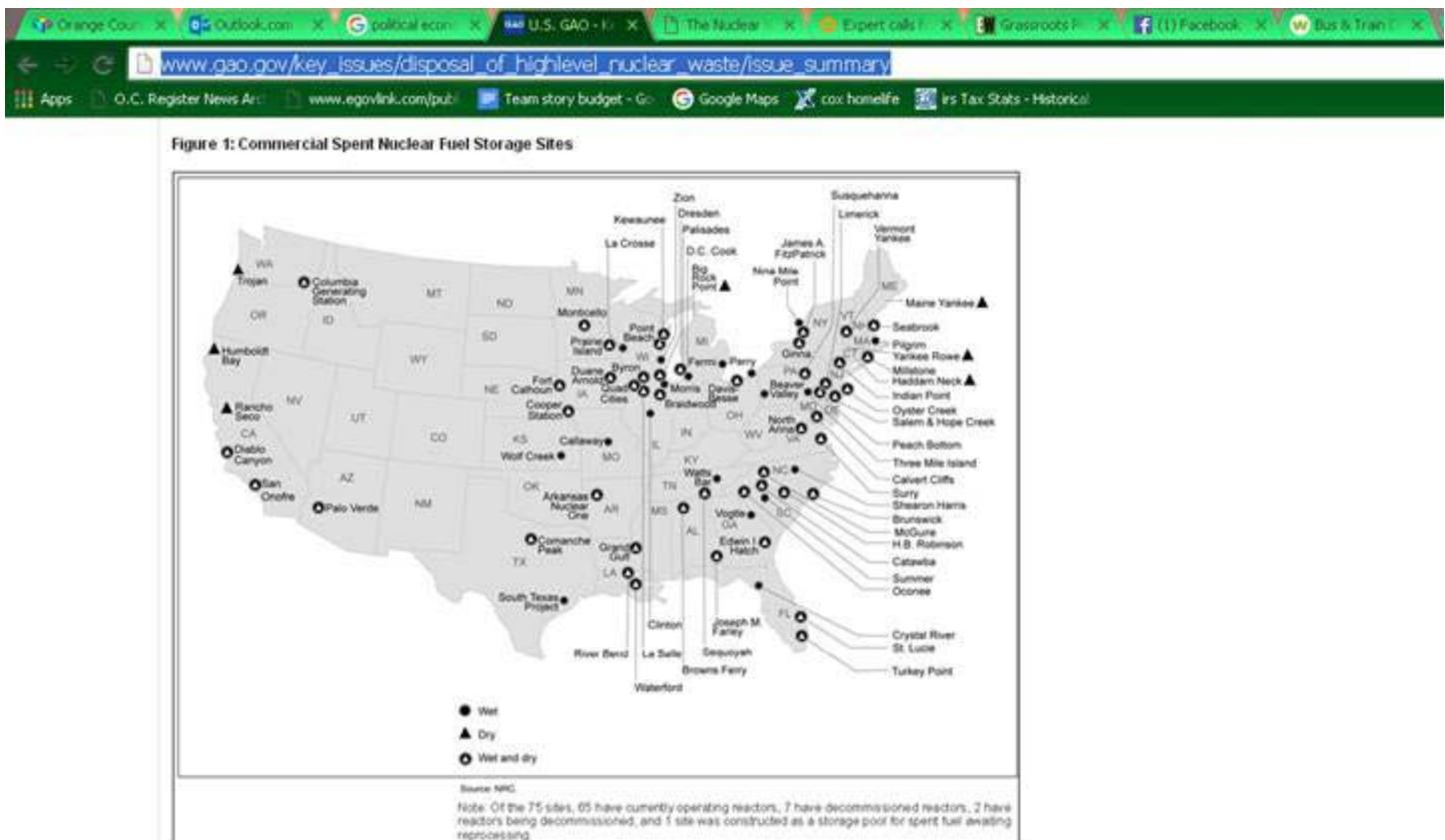
Consent Based Siting

From: Teri Sforza
Sent: Wednesday, June 22, 2016 3:14 PM
To: Jackson, Bartlett; Maureen Brown; Moore, Calvin; Charles Langley; Per Peterson; Daniel Hirsch; Ted Quinn; Consent Based Siting
Subject: RE: Texas and New Mexico Do Not Want Consolidated High-Level Radioactive Waste Storage; Don't Dump on Us!

Hi folks. Teri Sforza from the Orange County Register here.

With opposition to consent-based-siting of nuclear waste solidifying in places that were allegedly eager for the business... what is there to do? Is there reason to believe that any effort to site waste in the continental U.S. would turn out differently than Yucca has?

I'm copying a map of where nuclear waste currently sits from the GAO.... some are saying this is where it will remain for much, much longer than anyone will acknowledge. What is the path forward?!



Source: GAO-12-797

Two federal agencies—the Nuclear Regulatory Commission (NRC) and the Department of Energy (DOE)—are primarily responsible for the regulation and disposal of the nation's spent nuclear fuel. NRC regulates the construction and operation of commercial nuclear power plants and spent fuel disposal facilities, as well as the storage and transportation of spent fuel. The Nuclear Waste Policy Act of 1982, as amended in 1987, directed DOE to investigate Yucca Mountain as the site for a federal geologic disposal site for spent nuclear fuel and high-level nuclear waste from commercial nuclear power plants and



Teri Sforza
The Orange County Register

From: Karen Hadden
Sent: Tuesday, June 21, 2016 4:38 PM
To:
Cc:
Subject: Texas and New Mexico Do Not Want Consolidated High-Level Radioactive Waste Storage; Don't Dump on Us!

Hello David Victor, San Onofre Community Engagement Panel and participants,

I wish you well with your meeting tomorrow in San Juan Capistrano to discuss storage of the San Onofre nuclear plant's used fuel. This is an important issue and the decisions that get made will impact people today and far into the future since half-lives of some of radionuclides involved are millions of years long. I ask that you forward this message to all members of the panel for the June 22nd meeting and to John Kotek and Allison Macfarlane. Please also let the public know that you have received this letter and make at least one copy available for people to read at the meeting since we cannot afford to be there in person.

Please be aware that many people in Texas and New Mexico are solidly opposed to having high-level radioactive waste stored in our region. The Texas Democratic Party just included a statement to that effect in the 2016 Platform.

However, our voices are still not being heard. The DOE scheduled 8 meetings about consent around the country, but none in Texas or New Mexico, the targeted region. Comments from people near the proposed WCS and Eddy Lea Energy Alliance (ELEA) radioactive waste storage sites are included in the media release below. There are real people living in these areas which are ground zero in current plans for storage and perhaps eventual disposal of high-level radioactive waste.

In fact, dumping this dangerous waste on communities that are largely Hispanic and lack the resources to fight back, people who never had a say in the nuclear reactors to begin with or benefitted from any electricity from them, would be an extreme example of environmental injustice.

Transporting this waste could lead to unimaginable disasters. The Texas Commission on Environmental Quality 2014 report, Assessment of High Level Radioactive Waste Storage Options, said the following: “SNF (spent nuclear fuel) is more vulnerable to sabotage or accidents during transportation compared to storage since fewer security personnel and fewer engineered barriers are available. Consequences due to sabotage or accidents are also higher during transport since the waste may be near population centers.”

We are also concerned that the WCS site in West Texas is very close to the Ogallala Aquifer, the nation’s largest aquifer, which lies beneath eight states, providing drinking water and water for irrigation and livestock.

Wherever high-level radioactive waste goes, dry storage casks must be improved to prevent cracks, helium leaks and corrosion. Thicker steel is needed, such as that used in Europe and inspections for cracks must become routine and ongoing for all dry casks.

Please bear these considerations in mind and I hope that you will respect the people of Texas and New Mexico as you make your decisions.

Sincerely,
Karen Hadden
Sustainable Energy & Economic Development (SEED) Coalition
A Texas-based non-profit focusing on clean energy and public health

For Immediate Release:
June 21, 2016

Contact: Karen Hadden, SEED Coalition,
Tom “Smitty” Smith, Public Citizen,

Texas Democrats Say: ‘We Don’t Consent to Plans for High-Level Radioactive Waste Storage in West Texas’

Risks Include Accidents and Sabotage

SAN ANTONIO, Texas – The Texas Democratic Party doesn't consent to a plan that would bring the nation's dangerous high-level radioactive waste to West Texas, public interest groups and concerned citizens said today.

During its convention in San Antonio last week the party debated a resolution opposing a plan by Waste Control Specialists (WCS) to expand its low-level radioactive waste storage site in Andrews County to accept high-level radioactive waste. The site is located on the border of Texas and New Mexico.

A resolution that cites risks of water contamination, security concerns and transportation accidents as reasons to oppose the plan was passed by 29 county conventions, more than any other resolution this year, and it went on to be approved in the Resolutions and Platform Committees, and then by the full Convention.

The 2016 Texas Democratic Party Platform now includes the following statement: We support...halting the plan to import high-level radioactive waste for consolidated storage in Texas due to risks of water contamination, security concerns and transportation accidents, and we oppose transport of high-level radioactive waste on our highways or railways.

President Barack Obama's Blue Ribbon Commission on America's Nuclear Future set up a policy of trying to get communities to volunteer to take radioactive waste by giving "consent," since most communities have fought hard against such a plan. The U.S. Department of Energy (DOE) has been hosting meetings around the country seeking input on the issue of "consent" but failed to hold meetings in Texas or New Mexico, the two states most affected by the plan.

Andrews County Commissioners agreed to WCS' plan last year, but the community never got to vote, and if they had, the plan might have been rejected. Based on the Commission's action, the DOE has been telling people elsewhere that people in the Texas / New Mexico.

"Based on the many conversations I've had with local people, almost no one wants dangerous high-level radioactive waste from around the country to come here," said Humberto Acosta, a concerned citizen in Andrews, Texas. "The people of Andrews feel betrayed because we weren't given a chance to voice our opinion. The great majority of people I've talked with agree with me that we do not consent to having this radioactive waste in our community. This would be an environmental injustice committed against the people of Andrews."

"We do not consent to the plan to dump dangerous radioactive waste on us," said Rose Gardner of Eunice, New Mexico, a town of nearly 3,000 people that is 40 percent Hispanic and five miles west of the WCS site. "Andrews County officials say that we want this waste, but no one has ever asked me if I consent. I would definitely say no, and many others here feel the same way. We never got to vote on this issue. The DOE is saying that our community consents to having radioactive waste dumped in our backyard, but this isn't true. The DOE scheduled eight hearings around the country, but not a single one for New Mexico or Texas, the targeted region. Clearly they don't want to hear our voices."

The WCS plan would involve more than 10,000 shipments of radioactive waste generated across much of the United States over 20 or more years. A DOE report found that a radiation release could render 42 square miles uninhabitable and that it could cost more than \$9.5 billion to raze and rebuild a single square mile of a major city's downtown area. Each waste shipment would contain more plutonium than was in the bomb that devastated Nagasaki, Japan.

"This plan is all risk, not only for the state of Texas, but for the whole country, and it should be halted immediately," said Tom "Smitty" Smith, director of Public Citizen's Texas Office. "Putting this waste on our railways invites disaster. Radioactive waste moving through highly populated cities across the country could be targeted for sabotage by terrorists."

A [Texas state report](#) says that “spent nuclear fuel is more vulnerable to sabotage or accidents during transport than in storage because there are fewer security guards and engineered barriers, and that the consequences could be higher since the waste could travel through large cities.”

“Exposure to radioactivity can lead to cancers and genetic damage. Accidents could be deadly,” said SEED Coalition Director Karen Hadden. “Even the DOE says that an unshielded person exposed up close to high-level radioactive waste would die within a week. There’s no need to risk health and safety across the country just to store radioactive waste in a different place, especially since no permanent repository has been developed. The least risky path is keeping the radioactive waste where it is.”

Transporting radioactive waste for the purpose of consolidated storage isn’t advisable and isn’t needed, the groups said. The least risky option would be to have the waste remain secured in dry casks at the sites where it was generated, or nearby, and most reactor sites are licensed to do this.

“If this mass movement of radioactive waste begins, there will be accidents, and some of them could release enormous amounts of radioactivity,” said Diane D’Arrigo, radioactive waste project director at Nuclear Information and Resource Service (NIRS). “This waste is the hottest, longest-lasting, most intensely radioactive, cancer-causing part of the whole nuclear power fuel chain. It is dangerous now and will still be dangerous in thousands to millions of years into the future. The nuclear industry and government want to pretend there is an answer to the radioactive waste problem and move the waste around, at our peril.”

WCS’ application for consolidated “interim” storage is for 40 years, but some fear that the site would become a de facto permanent disposal site, especially if there were cracks in casks or leaks. No permanent site should be created by default and without the rigorous research needed to assure that radioactive waste remains isolated for thousands of years, the groups said.

Lon Burnam, a former state representative from Fort Worth, is concerned about potential water contamination.

“The WCS site is supposed to be dry, but the company’s own monitoring well data frequently shows that water is present,” Burnam said. “The site is very close to the Ogallala (High Plains) Aquifer, which provides drinking and irrigation water for eight states in the middle of our country. What if the nation’s largest aquifer became contaminated by radioactivity?”

For more information about the effort to oppose high-level radioactive waste storage and disposal in West Texas, visit www.NuclearWasteAqui.org.

###

Photos from the Texas Democratic Convention



Participants in the Environmental Caucus were concerned about the risk of high-level radioactive waste storage.



Photo by Karen Hadden
OK to use if you'd like.

Consent Based Siting

From: Teri Marlowe
Sent: Wednesday, June 22, 2016 12:38 PM
To: Consent Based Siting
Subject: SONGS

Sent from my iPad

I have been a resident of San Clemente since the year 2000. I oppose the storage of deadly nuclear waste in our backyards at San Onofre.

The plan for "interim storage" by transferring toxic nuclear waste presently stored in cooling spent fuel pools to dry storage is a band-aid approach.

How can we trust another company, Holtec, who negotiated with the power company Edison to re-assure our family and future families safety. We should have learned a lesson when Southern CA Edison contracted with Mitsubishi to build brand new steam generators and the result was the closing of San Onofre due to leaks. We happen to be located in an area similar to Fukushima Japan.

We are talking about storing nuclear deadly waster materials. Many members of our community still have Potassium Iodide tablet that were dispensed in case of a nuclear leak to prevent Thyroid Cancer.

The DOE collected over \$40 B from utility rate-payers for the disposal of this nuclear waste in a permanent facility. The Yucca site in Nevada was built for this purpose, but Senator Reid refuses the collection and transfer to this facility.

Another example of wasteful spending.

Has anyone developed a plan on how this nuclear waste would be transferred to sites in Texas or New Mexico?

A commission appointed by our President recommended that the task should be taken away from the DOE. Why is that?

I moved my family to San Clemente and have been very happy with our Village by the Sea and our bumper stickers that read "Best Climate in the World."

I am giving it serious thought of moving out of state. Your decision on this crucial matter will help in making my decision. Please don't turn our town into a nuclear dump.

Sincerely,

Dwayne Marlowe

Consent Based Siting

From: bruce beattie
Sent: Wednesday, June 22, 2016 10:04 AM
To: Consent Based Siting
Subject: San Onofre Waste Disposal

Hello:

Please add my comments to have all radioactive wastes moved and disposed at the DOE facility at Yucca Mountain, NV.

Bruce S. Beattie

Vista, CA

Consent Based Siting

From: Debbie Evans
Sent: Tuesday, June 21, 2016 10:54 PM
To: Consent Based Siting
Subject: IPC SONGS Nuke Waste!

As a lifelong San Clemente resident I am deeply concerned that progress is too slow or non existent in removing the waste from the de commissioned SONGS plant. This small beach community in a thriving national economic engine is no place to store this waste, waste that was NEVER intended to be stored here in the first place. Our community and a greater southern California community is outraged! PLEASE remove this deadly waste. At present it seems like we have a higher than normal cancer rate and no adequate studies. We are living in a nightmare.....please solve this issue!!

Consent Based Siting

From: Carol M. Dettoni
Sent: Tuesday, June 21, 2016 10:04 PM
To: Consent Based Siting
Cc: John Dettoni
Subject: Response to IPC

21 June, 2016

Congressman Issa:

Thank you for coming to our area to talk about SONGS and what to do about this problem in our "neighborhood." I sill not be able to attend the meeting in San Juan Capistrano on the 22 June.

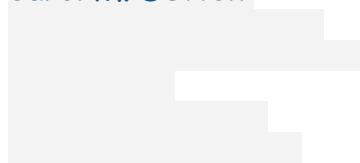
My major concerns:

1. We are very concerned about the possibility of earthquake damage and poisonous leakage which could be deadly.
2. Terrorism has brought new concerns for those living near San Onofre.
3. Is Security at SONGS adequate?

Thank you,

Carol Dettoni

Carol M. Dettoni



Consent Based Siting

From:
Sent: Tuesday, June 21, 2016 7:19 PM
To: Consent Based Siting
Subject: Public hearing - hazzarded waste storage at San Onofre

I strongly object to storage at this location. Open Yucca Flats or another secure site. William G. Arnold,

Consent Based Siting

From: Tinka Hrountas
Sent: Tuesday, June 21, 2016 4:15 PM
To: Consent Based Siting
Subject: Response to IPC

I'm a resident of San Clemente who strongly opposes the continued dry cask storage of nuclear waste at SONGS. The half-lives of the nuclear waste exceeds a human life span as well as the life span of a civilization! How will this waste be secure and treated and safe from seismic, tsunami or terrorist activities?

At this point, deep geological storage at WIPP or similar new facility is the most reasonable plan.

This is a dangerous and disconcerting situation.

Thank you for your concern,
Christine Hrountas, MD

Sent from my iPhone

Consent Based Siting

From:
Sent: Tuesday, June 21, 2016 2:42 PM
To:
Subject: Fwd: REMINDER! Time for a Colorado Revolt, June 22, 2016 — June 25, 2016

From:
To:
Sent: 6/19/2016 12:45:20 A.M. Mountain Daylight Time
Subj: REMINDER! Time for a Colorado Revolt, June 22, 2016 — June 25, 2016

 [Forward to a friend](#)

Colorado Community Rights Network

Time for a Colorado Revolt

Elevating Community Rights Over Corporate Power

Speaker

Thomas Linzey

**Executive Director of the Community Environmental
Legal Defense Fund (CELDF),
co-founder of Democracy School**



TIME FOR A COLORADO REV
PRESENTATION BY THOMAS LINZEY
COMMUNITIES TAKING ON CORPORAT
AND THE STATE OF COLORADO

Denver: Wednesday, June 22
Fort Collins: Thursday, June 23
Boulder: Friday, June 24
Colorado Springs: Saturday, Ju

COLORADO COMMUNITY RIGHTS NI

Thomas Linzey is the executive director of the Community Environmental Legal Defense Fund (CELDF) and co-founder of Democracy School. Linzey has been featured in national publications and was named one of Forbes Magazine's "Top Ten Revolutionaries"

When & where?

Denver, Wednesday, June 22, 6:30 – 8:30 pm

The Lowry Conference Center, Room 100C
1061 Akron Way, Bldg 697
Denver, CO

Fort Collins, Thursday, June 23, 6:30 – 8:30 pm

CSU Campus
Behavioral Sciences A101
410 Pitkin Street
Fort Collins, CO
Sponsored by Environmental Justice CSU, SoGES Global Challenges Research Team

Boulder, Friday, June 24, 6:30 – 8:30 pm

CU campus

Eaton Humanities Building, Room 250

1610 Pleasant Street

Boulder, CO

Co-sponsored by 180°11 (The 180 Degree Shift, at the 11th Hour), Campaign for Human Rights and the Environment

Colorado Springs, Saturday, June 25, 4 – 6 pm

Penrose Library, Downtown, Carnegie Room

20 N Cascade Ave

Colorado Springs, CO

Spend an evening with CELDF's Thomas Linzey, named one of Forbes Magazine Top Ten Revolutionaries. Learn about the community rights movement in the United States and

- How people in over 200 communities across the country are using their municipal governments to rise up to confront corporate control of those localities.
- How corporations today use claimed corporate constitutional "rights" to override local bans on fracking, factory farming, water bottling operations, and fossil fuel pipelines.
- How local communities are beginning to directly and openly challenge the U.S.'s governmental structure that enables corporations to nullify local laws.
- How the community rights movement resembles people's movements of the past, like the Suffragists and Abolitionists.
- How Colorado communities and the Colorado Community Rights Network (COCRN) are pushing back against oil and gas corporations, as well as the State of Colorado.

Check here for more information. <http://celdf.org/2016/06/time-colorado-revolt/>

[Colorado Community Rights Network](#)

[Colorado Community Rights Network on Facebook](#)

CoCommRights@gmail.com

[Unsubscribe](#) | [Privacy Policy](#)



Consent Based Siting

From: Jif John Massey
Sent: Tuesday, June 21, 2016 5:13 AM
To: Consent Based Siting
Subject: REMOVAL OF NUCLEAR WASTE FROM SONGS

Please expedite removal of nuclear waste asap from San Onfre Nuclear Generating Station. The economy and many lives and livings will be lost forever if there is ever a release of the chemicals from this incredibly dangerously located plant.

Thank you,

John & Jenifer Massey, San Clemente, CA

Consent Based Siting

From: John Harwer
Sent: Tuesday, June 21, 2016 12:43 AM
To: Consent Based Siting
Subject: Response to IPC

I fully support expedited removal of the nuclear waste at San Onofre facility,
and I hereby raise my concern if such removal is not done ASAP.

Sincerely,

John Harwer

Consent Based Siting

From: Leonard Kranser
Sent: Monday, June 20, 2016 11:05 PM
To: Consent Based Siting
Subject: Response to IPC

Nuclear waste should not be stored in a coastal, tsunami and earthquake sensitive location such as the closed San Onofre generating plant. It is easily approached by terrorists from the sea or along the highway. Nuclear waste belongs in a remote area and not where it is a threat to over one million nearby residents.

Leonard and Miriam Kranser

Consent Based Siting

From: Kirill Gliadkovsky
Sent: Monday, June 20, 2016 10:16 PM
To: Consent Based Siting
Subject: Response to IPC

Hello,

Please register my comments in lieu of the attendance at the public meeting.

I strongly support expediting the removal of waste from SONGS as required by law and paid for by local ratepayers.

It is too dangerous to keep it in the current facility next to the beaches and residential areas.

Best wishes,
Kirill Gliadkovsky
Resident of San Juan Capistrano

Consent Based Siting

From: Rita Osendorf
Sent: Monday, June 20, 2016 7:22 PM
To: Consent Based Siting
Subject: San Onofre

Honorable Mr Issa,
I am very concerned about this issue. I regret that I will not be here for the meeting and won't be able to attend. I understand there are concerns about Yucca Mountain because of the faults. I want to know about this issue so I can voice my opinion but I do not have all the facts. Please include me in all communications and I will do my best to become informed. I will attend future meetings.
Sincerely,
Mrs. Rita Osendorf

Sent from my iPhone

Consent Based Siting

From:
Sent: Monday, June 20, 2016 5:55 PM
To: Consent Based Siting
Subject: Fwd: Response to IPC

Make good on a promise made in 1982 (Nuclear Waste Policy Act) to find, build and operate an underground nuclear disposal facility. The people of the United States relied on that promise otherwise they would not have voted for and approved the construction of nuclear power sites. I know that I relied on the promise that the spent nuclear waste would be disposed of in an off-site storage facility in the middle of the dessert on government land before I purchased a property in San Clemente to raise my family.

Moving the spent nuclear fuel and high-level radioactive waste should be absolutely mandatory for nuclear power sites that are 1) de-commissioned, 2) are located near earthquake fault lines, 3) are located on the ocean coast, 4) are located next to a major arterial highway with traffic counts of over 200,000 vehicles per day, and 5) are an easy target for a terrorist attack (see the following article on how easy it is for illegal aliens to enter California by sea) <http://www.nytimes.com/2002/05/26/national/26CALI.html> . In addition, there is urgency in relocating the nuclear waste from any plant that is near the ocean as the current dry storage canisters, although they are built thicker than most canisters currently in the US, are prone to cracking mainly because of chloride-induced, stress-corrosion from the salty air. They will not withstand 10,000 years of storage as the Yucca Mountain facility is designed, and when the canisters crack (which it is known that they will), it will be a major disaster, people will have to evacuate at least a 10 mile radius, and it will be too late to move the cracked cannisters safely. The time to relocate the nuclear waste to the secure site that was promised us is NOW.

The US Geological Survey predicts an 85% probability of a magnitude 5 or greater earthquake in the Orange County area over the next two to three years, and a recent study published in the journal Earth and Space Science and coauthored by a research scientist at NASA's Jet Propulsion Laboratory in La Canada Flintridge predicts a probability of 99.9% for an earthquake to occur in the greater Los Angeles area prior to April 1, 2018. We can see the effects of the Fukushima accident (see the following link). The San Onofre Nuclear plant is located on the coast just like the Fukushima plant, and according to the 2010 U.S. Census, 8.5 million people live within 50 miles and would be affected by a radiation leak.

<http://www.cnn.com/2016/03/08/asia/fukushima-five-year-anniversary/>

I realize that the Obama administration stopped the funding for the Yucca Mountain nuclear waste storage facility. I recommend that the La Casa Pacifica (Richard Nixon's "Western Whitehouse"), be repurchased by the taxpayers and that the most recent ex-presidents and their families live there full-time during the first year out of office. It's a beautiful property on the beach of San Clemente in a private community of multi-million dollar homes, and just three miles north of the de-commissioned San Onofre Nuclear Generating Station. Maybe that would convince our leader-in-chief, or future leader, to reconsider funding the Yucca Nuclear Waste Disposal Facility project.

Please mak

Consent Based Siting

From: Michael Nelson
Sent: Monday, June 20, 2016 5:28 PM
To: Consent Based Siting
Subject: San Onofre

Spent waste stored next to the ocean and more importantly, next to millions of citizens is unacceptable. It needs to be in the place originally promised, Yucca Mountain. Gov needs to get it done.

Dr. Michael Nelson

Consent Based Siting

From: eliza von
Sent: Monday, June 20, 2016 1:41 PM
To: Consent Based Siting
Subject: Response to IPC

Dear DOE,

I am a resident of Dana Point. My children attend school in Capistrano Beach. We no longer have to sign a waiver about Iodine administration in the case of a nuclear catastrophe. We were relieved it was decommissioned!

Now I am aware that the storage of the waste has become a problem. It is un-heard that in light of Fukushima and where we are on a fault line that we haven't created a solution. We also have this facility located in our marine base. In light of those issues, we need to find a solution now for our national security!

Thank you for you time.

Sincerely,

--
Elizabeth Von Dwingelo, CMT

Consent Based Siting

From: Angie Narel
Sent: Sunday, June 19, 2016 11:15 PM
To: Consent Based Siting
Subject: Response to IPC

As homeowners who live in the near community of the decommissioned San Onofre Nuclear Generating Station, it is a shock to us as rational and reasonable responsible law-abiding citizens to think that anyone with any level of intelligence would make a scientific-based and rational decision in the best interest of the health and well-being of human citizens to allow 3.6 million pounds of nuclear waste to remain in the heart of the community of San Onofre Nuclear Generating Station. As we have sadly had to say to our teenage children when they have conducted themselves badly – “what the hell were you thinking!!! ### @@ “ when you made that decision – normally when they did something so outrageous and STUPID that we couldn’t even imagine that they were coherent at the time of their decision!

The only reason to make such an egregiously ignorant decision is that (1) people were paid off large sums of money under the table or (2) ultimately San Onofre Nuclear will save tons of money and therefore their shareholders will benefit and somehow they are finding a way to pay off people. Bottom line – this is so stupid and irresponsible and unsafe that there is no rational way to justify it – so who got the personal \$\$\$ and why aren’t the regulatory bodies supposedly “responsible” for looking out for the people looking into all the \$\$\$ going back into when the plant really stopped generating profits and stuck it to the people and start allocating the \$\$\$ properly and make San Onofre pay their fair share and do the right thing and get rid of the nuclear waste the right way and the safe way no matter how long and how much it costs THEM!!!! Let the regulators do their job!!

Angela and Leonard Narel

Consent Based Siting

From: Michelle Schumacher
Sent: Saturday, June 18, 2016 4:23 PM
To: Consent Based Siting
Subject: Response to IPC"

>

>

> I AM GREATLY CONCERNED BY THE RATES OF CACNER WE HAVE IN SAN CLEMENTE AND THE NUCLEAR WASTE BEING STORED AGAINST WHAT THE GOVERNMENT PROMISED WIHT THE NUCLEAR PROGRAM WHICH WAS THE WOULD SAFELY DEAL WITH THE WASTE.

>

> I FIND IT SHOCKING WHEN THERE IS A PROCESS AND TECHNIQUE THAT ALLOWS FOR THE WASTE TO BE TURNED INTO INERT GLASS CHIPS THAT THE FEDERAL GOVERNMENT HAS NOT LIVED UP TO ITS OBLIGATIONS AND SAFELY DEALT WITH THE WASTE.

>

> QUITE FRANKLY THE PERSON WHO SAID STORE IT IN A MOUNTAIN IS NOT THAT BRIGHT - IT IS NOW TIME TO TAKE THE MONEY WE ALL PAID INTO THE WASTE FUND FOR DECADES TO BE USED TO SAFELY MAKE THE WASTE INERT AND GET REMOVE IT FROM SOUTHERN CALIFORNIA AS IT IS TO SEISMICALLY ACTIVE TO HAVE IT WAITING FOR US TO BE THE NEXT JAPAN.

>

> THANK YOU AND PLEASE DO RIGHT BY THE PEOPLE F THIS GREAT NATION FOR A CHANGE AND ADDRESS A REAL ISSUE

Consent Based Siting

From: Michelle Schumacher
Sent: Saturday, June 18, 2016 4:18 PM
To: Consent Based Siting
Subject: SONGS

I AM GREATLY CONCERNED BY THE RATES OF CANCER WE HAVE IN SAN CLEMENTE AND THE NUCLEAR WASTE BEING STORED AGAINST WHAT THE GOVERNMENT PROMISED WITH THE NUCLEAR PROGRAM WHICH WAS THE WOULD SAFELY DEAL WITH THE WASTE.

I FIND IT SHOCKING WHEN THERE IS A PROCESS AND TECHNIQUE THAT ALLOWS FOR THE WASTE TO BE TURNED INTO INERT GLASS CHIPS THAT THE FEDERAL GOVERNMENT HAS NOT LIVED UP TO ITS OBLIGATIONS AND SAFELY DEALT WITH THE WASTE.

QUITE FRANKLY THE PERSON WHO SAID STORE IT IN A MOUNTAIN IS NOT THAT BRIGHT - IT IS NOW TIME TO TAKE THE MONEY WE ALL PAID INTO THE WASTE FUND FOR DECADES TO BE USED TO SAFELY MAKE THE WASTE INERT AND GET REMOVE IT FROM SOUTHERN CALIFORNIA AS IT IS TO SEISMICALLY ACTIVE TO HAVE IT WAITING FOR US TO BE THE NEXT JAPAN.

THANK YOU AND PLEASE DO RIGHT BY THE PEOPLE OF THIS GREAT NATION FOR A CHANGE AND ADDRESS A REAL ISSUE

Consent Based Siting

From: david davison
Sent: Saturday, June 18, 2016 3:17 PM
To: Consent Based Siting
Subject: Response to IPC

To: Congressman Issa,

I am a registered voter concerned with the level of disinformation intervenors, or anti-nukes, are putting out to the public regarding used fuel storage at San Onofre including the choice of canisters. These folks lied about San Onofre's emergency batteries claiming they were disconnected for four years (could you drive with your battery disconnected...for four years?), make materially false statements about San Onofre's tube leak claiming a Fukushima almost occurred, that a Fukushima is going to happen if canisters leak, exaggerate on the likely hood of a canister leak (none have ever leaked), point to studies that do NOT say what these intervenors claim they say, and charge SCE with all sorts of nefarious motives regarding the storage of used nuclear fuel. The press, always looking to put an alarmist twist on any story, dutifully reports the lies, false statements, and exaggerations of these people.

What I would like to see are the facts, the truth, and reality forcefully presented publicly and the lies disseminated by the intervenors exposed for what they are...falsehoods. As the saying goes, a lie will make it half-way around the earth before the truth puts its boots on. I am hoping you can help shod the feet of the truth to limit the damage these intervenors are doing and to prevent them from hoodwinking the public.

Thank you for your time,

David Davison
San Clemente

Consent Based Siting

From: Gene Grode
Sent: Saturday, June 18, 2016 1:01 PM
To: Consent Based Siting
Subject: Nuclear waste... San Clemente. (however the waste is in San Diego Co.)

Why do you (government) need yet another employee to work in yet another government program
How much is they guy's salary and was this posted so our government could find the best possible Canaanite for the job?

What have done for us lately?

Gene Grode
San Clemente, CA

Consent Based Siting

From: Jim Kelly
Sent: Saturday, June 18, 2016 8:36 AM
To: Consent Based Siting
Subject: "Response to IPC"

Please ensure that SONGS is prioritized in federal storage plans. It is a critical health issue to us all.

Jim Kelly
Dana point

Consent Based Siting

From: Clinton Thoman
Sent: Saturday, June 18, 2016 12:19 AM
To: Consent Based Siting
Subject: SONGS

I'm glad that nuclear clean up is a concern for the area. However, I want to know why it was necessary to shut down a source of dependable power in a state where power is incredibly difficult to generate.

Sent from my iPhone

Consent Based Siting

From: Christine Hartman
Sent: Friday, June 17, 2016 10:22 PM
To: Consent Based Siting
Subject: re: response to IPC

Hello,

I am writing in response to the request for comments on the SONGS decommissioned nuclear power plant and removal and storage of nuclear waste.

It seems for public safety it is important to remove the waste and store it permanently. At the same time transport of this toxic waste is dangerous. It seems to me it would be safer overall to transport it and store it rather than let it set in limbo on site.

Thank you for your consideration of public comments.
Christine Hartman

Consent Based Siting

From: Mitch Mitchel
Sent: Friday, June 17, 2016 8:42 PM
To: Consent Based Siting
Subject: Nuclear Energy

Because of the waste produced by a nuclear plant that becomes a toxic problem for thousands of years. I insist you push forward with safe renewables in particular solar and wind and completely discontinue the use of nuclear plants as well as coal plants and fracking which threatens the health of all living things.

Thank you.

Dr M
Sent from my iPhone

Consent Based Siting

From: Michelle Gale
Sent: Friday, June 17, 2016 8:38 PM
To: Consent Based Siting
Subject: Response to IPC Nuclear Waste Confidence

Dear Sir or Madame:

I'm writing in response to the U.S. Court of Appeals for the District of Columbia Circuit Panel Ruling in New York v. Nuclear Regulatory Commission II, the Nuclear Waste Confidence Lawsuit.

The court and Nuclear Regulatory Commission (NRC) share unwarranted confidence in our being able to control irradiated nuclear fuel surface storage over time and eventually opening a geologic repository. I say this based upon the National Academies of Sciences (NAS) having recently reported that high-level radioactive waste storage pools in the United States are at high risk of catastrophic fires, whether as a result of accident, natural disaster, or terrorist attack; that and the fact that I think it's time to acknowledge that a suitable place to bury all this waste will never be found.

The revelation that Omar Mateen, who killed 49 people at The Pulse in Orlando last weekend, was one of several known terrorists who've been employed by the company responsible for security at 90% of America's nuclear facilities certainly doesn't instill confidence in the arrangements the NRC has made.

The recent NAS findings affirm those contained in a 2004 NAS report prompted by the September 11th attacks, and are in turn confirmed by Drs. Frank von Hippel and Michael Schoeppner of Princeton University's finding that an American irradiated nuclear fuel storage pool fire could release such massive amounts of cesium-137 that the Fukushima nuclear disaster would be dwarfed by comparison.

These warnings were repeatedly echoed by Dr. Gordon Thompson of the Institute for Resource and Security Studies throughout the Nuclear Waste Confidence proceeding, and are found too in Robert Alvarez's May 2011 report that was published in the early days of the Fukushima nuclear catastrophe.

Countless concerned citizens have echoed these warnings in hearings the purpose of which is presumably for said citizens to be heard.

Yet the NRC consistently ignores these warnings, thereby placing us all at grave risk.

Nuclear power is not the way forward; it's the path deeper into the mess we're in. It's dangerous, toxic, and expensive, and it must be phased out with the kind of commitment that we as a nation brought to putting a man on the moon or bringing about the end of World War II. We should be focused on transitioning to renewable energy and using the energy we do generate with the utmost efficiency instead of propping up and even expanding a deadly and dying industry.

As for safekeeping of the mountains of nuclear waste we've generated, Dr. Allison Macfarlane's call for the expedited transfer of irradiated nuclear fuel from pools to dry casks is the soundest option we've got. Above all, it's time to acknowledge and act, decisively and responsibly, on the fact that we must stop producing this catastrophically hazardous material for which there is no permanent disposal solution, and whose production is at this point completely unnecessary.

Sincerely yours,

Michelle Gale, Ph.D.

Consent Based Siting

From: Don Webb
Sent: Friday, June 17, 2016 7:54 PM
To: Consent Based Siting
Cc: 'Congressman Darrell Issa'
Subject: Response to IPC

Dear Department of Energy,

I am writing on behalf of my family who live in San Clemente, CA to voice our strong concerns about the failure of your organization to properly move and store the nuclear waste at the San Onofre Nuclear Power plant. Along with the 10s of Millions of residents in San Diego, Orange County, Los Angeles, Riverside and the remainder of Southern California, we find it unacceptable that the commitment to properly remove and permanently store this waste has not only not been done over the last 50 years but that there is no imminent viable plan to do so. This is a Federal issue and Billions of dollars have been collected from rate payers to solve that issue.

Considering just last week, my family was woken up by a 5.2 followed by a 5.1 earthquake and that our community will host thousands of beachgoers enjoying the ocean less than 5 miles from the site makes me very nervous at this point. I'm not sure what real or artificial roadblocks have been created to prevent the opening of the Yucca Mountain site or to leverage other willing states or locations that are far less populated to store this waste, but I trust that you will do everything in your power to honor the commitments that have been made and paid for to remedy this situation with all due haste.

Thank you for your hard work and please keep us informed of your progress either directly or through our Congressman (Currently Congressman Darrell Issa- 49th District).

Kind Regards,

Don Webb

Consent Based Siting

From: Barry Roberson
Sent: Friday, June 17, 2016 7:33 PM
To: Consent Based Siting
Subject: Response to IPC

It is CRIMINAL to not use the Yucca Mountain site as planned....

Consent Based Siting

From: Secure Nuclear Waste
Sent: Friday, June 17, 2016 4:20 PM
To: Consent Based Siting
Subject: Call to Action - Speak Up on June 22 to the Department of Energy

[View this email in your browser](#)

From Our Esteemed Colleague, Gary Headrick at San Clemente Green

SPEAK UP!

Department of Energy IS in Town

Too Important to Miss!

June 22nd at 5:30 PM at the San Juan Capistrano Community Center

[\(MAP\)](#)



Since I last wrote, the insightful meeting in Laguna Beach that I told you about took place, and it beat all expectations. We are very grateful to the incredible panel put together by [Secure Nuclear Waste](#) and for those who were able to attend. It was standing room only. Here is a brief overview including links to some good news coverage by CBSTV, OC Register, and San Clemente/Dana Point Times.



Here are some excerpts from the excellent news coverage ...

[**CBSTV \(video\)**](#) - Rita Conn - Coordinator for Secure Nuclear Waste talks about "bombs in our backyard". Donna Gilmore of [**San Onofre Safety**](#) says, "each half inch thick steel canister contains more waste than was released in the Chernobyl accident, having fifty of these canisters now installed, with one hundred more to come". Marni Magda, a concerned citizen from Laguna Beach says, "whether it is mother nature, human error or terrorism, we are only one step away from a major disaster".

[**OC Register**](#) - "Panelists told more than 200 people inside a packed Laguna Beach City Council chambers that plans by Southern California Edison to temporarily bury millions of pounds of nuclear waste 42 yards from the ocean at San Onofre State Beach must be stopped."

[**San Clemente Times & Dana Point Times**](#) - San Juan Capistrano Mayor Pam Patterson, who as mayor of a local government is part of Edison's Community Engagement Panel (CEP), said the CEP has misled the public on matters of security regarding terrorism threats. The management is as scary as the situation that they've created there," Patterson said.

[**San Diego Union Tribune**](#) - Provided some good background information in this article leading up to the meeting. "Critics say the plan does not allow for monitoring the canisters for future degradation or leaks and presents a health threat to the millions of people who live and travel through the region. They say regulators should do a better job mitigating the longterm threat."

ALL THE MORE REASON TO ATTEND EDISON'S NEXT COMMUNITY ENGAGEMENT PANEL

**June 22nd at 5:30 PM at the San Juan Capistrano Community Center
([MAP](#))**

We are pleased that this meeting will be held in our vicinity this time and we hope lots of concerned citizens like you will show up for this meeting too. Our democracy leads from the bottom up, so if you don't show up, who else is supposed to? Please participate. Don't simply expect "others" to deal with this serious matter.



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Consent Based Siting

From: J. Scheibner
Sent: Friday, June 17, 2016 10:11 AM
To: Consent Based Siting
Subject: Response to IPC

THE RUSH JOB TO DE FACTO PERMANENT PARKING LOT DUMPS, FOR ALL THE WRONG REASONS: We do not consent to DOE rushing into de facto permanent parking lot dumps (so-called “centralized” or “consolidated interim storage”), in order to expedite the transfer of title and liability from the nuclear utilities that profited from the generation of high-level radioactive waste, onto the backs of taxpayers.

FLOATING FUKUSHIMAS ON SURFACE WATERS: We do not consent to radioactive waste barge shipments on the lakes and rivers of this country, the fresh drinking water supply for countless millions, nor on the seacoasts. In addition to a disastrous radioactive release if the shipping container is breached, infiltrating water could spark a nuclear chain reaction, if a critical mass forms, due to the fissile U-235 and Pu-239 still present in the waste.

MOBILE CHERNOBYLS/DIRTY BOMBS ON WHEELS: We do not consent to high-level radioactive waste truck and train shipments through the heart of major population centers; through the agricultural heartland; on, over, or alongside the drinking water supplies of our nation. Whether due to high-speed crashes, heavy crushing loads, high-temperature/long duration fires, falls from a great height, underwater submersions, collapsing transport infrastructure, or intentional attack with powerful or sophisticated explosives, such as anti-tank missiles or shaped charges, high-level radioactive waste shipments, if breached, could unleash catastrophic amounts of hazardous radioactivity into the environment.

ENVIRONMENTAL INJUSTICE/RADIOACTIVE RACISM: We do not consent to the targeting, yet again, of low-income, Native American, and other communities of color, with high-level radioactive waste parking lot dumps. It is most ironic that President Obama’s Blue Ribbon Commission on America’s Nuclear Future, and his DOE, have yet again targeted Native Americans. Obama honored Sauk and Fox environmental activist Grace Thorpe for defending her reservation in Oklahoma against a parking lot dump, and then assisting allies at dozens of other reservations being targeted by DOE’s Nuclear Waste Negotiator. Obama praised Thorpe as a “Woman Taking the Lead to Save Our Planet,” alongside the likes of Rachel Carson of Silent Spring fame, in his March 2009 Women’s History Month proclamation. Similarly, Yucca Mountain, Nevada is Western Shoshone Indian land, as the U.S. government acknowledged by signing a treaty. In addition, Yucca is not scientifically suitable. It is an active earthquake zone, a volcanic zone, and water-saturated underground. If waste is ever buried there, it will leak massively into the environment. And the State of Nevada has never consented to becoming the country’s high-level radioactive waste dump.

SITES CURRENTLY AT THE VERY TOP OF THE TARGET LIST FOR DE FACTO PERMANENT PARKING LOT DUMPS: We do not consent to the targeting of nuclear power plants, radioactive waste dumps, or DOE sites, already heavily contaminated with radioactivity and burdened with high-level radioactive waste, to become parking lot dumps for the importation of other sites’ or reactors’ wastes. DOE, NRC, and industry’s top targets include Waste Control Specialists in Andrews County, TX; Eddy-Lea Counties, NM, near DOE’s Waste Isolation Pilot Plant; DOE’s Savannah River Site, SC; Dresden nuclear power plant in Morris, IL; the list goes on.

RISKS OF HIGH-LEVEL RADIOACTIVE WASTE STORAGE POOLS, AND NEED FOR HARDENED ON-SITE STORAGE (HOSS): As just re-confirmed by the National Academies of Science, and Princeton U. researchers Von Hippel and Schoeppner, pools are at risk of fires that could unleash catastrophic amounts of hazardous Cesium-137 into the environment over a wide region. Since 2002, a coalition of hundreds of environmental and public interest groups, representing all 50 states, has called for expedited transfer of high-level radioactive waste from vulnerable pools into hardened dry casks, designed

and built to last not decades but centuries, without leaking, safeguarded against accidents and natural disasters, and secured against attack.

NUCLEAR POWER AND HIGH-LEVEL RADIOACTIVE WASTE GENERATION: The mountain of radioactive waste in the U.S. has grown 70 years high, and we still don't know what to do with the first cupful. Radioactive waste may well prove to be a "trans-solutional" problem, one created by humans, but beyond our ability to solve. The only safe, sound solution for radioactive waste is to not make it in the first place. Reactors should be permanently shut down, to stop the generation of high-level radioactive waste for which we have no good solution.

Consent Based Siting

From: Donna Knipp
Sent: Friday, June 17, 2016 8:51 AM
To: Consent Based Siting
Subject: Response to IPC

We do not consent to DOE rushing into *de facto* permanent parking lot dumps (so-called “centralized” or “consolidated interim storage”), in order to expedite the transfer of title and liability from the nuclear utilities that profited from the generation of high-level radioactive waste, onto the backs of taxpayers.

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Sincerely,

Donna Knipp
New York, NY

[Destroying rain forest for economic gain] is like burning a Renaissance painting to cook a meal. -E.O. Wilson, biologist, naturalist, and author (b. 10 Jun 1929)

Consent Based Siting

From: Steven
Sent: Thursday, June 16, 2016 9:35 PM
To: Consent Based Siting
Subject: Response to IPC

Hi,

We do not consent to high-level radioactive waste truck and train shipments through the heart of major population centers; through the agricultural heartland; on, over, or alongside the drinking water supplies of our nation. Whether due to high-speed crashes, heavy crushing loads, high-temperature/long duration fires, falls from a great height, underwater submersions, collapsing transport infrastructure, or intentional attack with powerful or sophisticated explosives, such as anti-tank missiles or shaped charges, high-level radioactive waste shipments, if breached, could unleash catastrophic amounts of hazardous radioactivity into the environment.

The mountain of radioactive waste in the U.S. has grown 70 years high, and we still don't know what to do with the first cupful. Radioactive waste may well prove to be a "trans-solutional" problem, one created by humans, but beyond our ability to solve. The only safe, sound solution for radioactive waste is to not make it in the first place. Reactors should be permanently shut down, to stop the generation of high- level radioactive waste for which we have no good solution.

I would appreciate you keeping my thoughts in mind.

Thank you

Steven Goldman

Sent from my iPad

Email: Responses may be provided by email to consentbasedsiting@hq.doe.gov. Please **include "Response to IPC" [Invitation for Public Comment] in the subject line.**

Consent Based Siting

From: Steve Roddy
Sent: Thursday, June 16, 2016 7:27 PM
To: Consent Based Siting
Subject: Response to IPC (Public Comment)

I do NOT consent to this plan for spreading highly dangerous radioactive materials around our nation!!!

THE RUSH JOB TO *DE FACTO* PERMANENT PARKING LOT DUMPS, FOR ALL THE WRONG REASONS: We do not consent to DOE rushing into *de facto* permanent parking lot dumps (so-called “centralized” or “consolidated interim storage”), in order to expedite the transfer of title and liability from the nuclear utilities that profited from the generation of high-level radioactive waste, onto the backs of taxpayers.

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Sincerely,

Stephen Roddy

Consent Based Siting

From: Judi Poulson
Sent: Thursday, June 16, 2016 6:55 PM
To: Consent Based Siting
Subject: Response to IPC

I am against radioactive waste dumps.

They target Native Americans and people of color.

They threaten our water supply.

Transporting them through major cities and our agricultural heartland.

Accidents can happen.

I have seen the results of Chernobyl and visited people in Belarus who were affected by it.

I do not consent.

Judi Poulson

Consent Based Siting

From: Michael McEvilly
Sent: Wednesday, June 15, 2016 6:52 PM
To: Consent Based Siting
Subject: Response to IPC
Attachments: Comment Ltr to DOE (6-15-2016).pdf

Dear sir/madam:

Please find attached our comments in response to the IPC. Thank you for your consideration.

Michael McEvilly

--

Michael McEvilly | Irvine & Conner, PLLC

June 15, 2016

U.S. Department of Energy, Office of Nuclear Energy
Response to IPC
1000 Independence Ave SW.
Washington, DC 20585
Email: *consentbasedsiting@hq.doe.gov*

Re: Comments on a Consent-Based Siting Process for Nuclear Waste Storage and Disposal Facilities, 80 Fed. Reg. 79872 (Dec. 23, 2015)

Dear Sir/Madam:

We appreciate the Department of Energy's commitment to a phased, adaptive, consent-based siting process for nuclear waste management facilities. These comments focus on the implementation of the Department of Energy's Strategy and, more specifically, issues that exist for an effective consent-based siting process in west Texas. We are writing these comments on behalf of the Coalition for Safe Trans-Pecos, which is comprised of landowners in west Texas, where companies have proposed locating nuclear waste disposal facilities.

Used Nuclear Fuel and High-Level Waste in Texas

West Texas is home to one of the few low-level nuclear waste sites in the United States. Waste Control Specialists, who operates this site in Andrews County, announced in April that it was applying for a license to build and maintain a temporary storage site for spent nuclear fuel at this same site. A second company, AFCI, has also made efforts to identify a site for an interim nuclear waste disposal facility in the Trans-Pecos region of Texas.

With the exception of El Paso and a few small cities, much of western Texas is sparsely populated, with some counties regularly having a voting population well-below two thousand voters. Much of the land in the westernmost counties is comprised of large ranches owned by relatively few individuals. Some of these ranch owners live and work in other cities/counties and, therefore, are not registered voters in the county.

This situation, coupled with the financial incentives that accompany proposed nuclear waste sites, can create real problems for consent-based siting. This is especially true when local

“support” or “approval” simply means approval by the local county commissioners court or other elected officials. Individuals from a waste disposal company may meet with these local officials in private to convince them of the merits of a nuclear waste disposal site. The financial incentives for these facilities, which can be a huge boon to cities and counties with relatively small budgets, can unduly influence local decision-making. While this support is being gathered at the political level, residents within the county (including part-time residents) are often left in the dark about projects until a much later time.

In the large counties in western Texas, and likely in other proposed locations for nuclear waste facilities, this raises concerns that local decision-makers can support projects that greatly affect individuals who have had little to no input into the siting process. This particular form of consent-based siting is not fair or acceptable for selecting the location of nuclear waste storage sites. We believe that local landowners must have the opportunity to meaningfully participate in the siting of these facilities.

Below, we address the five questions posed in the Department’s request for public comments.

(1) How can the Department of Energy ensure that the process for selecting a site is fair?

The Blue Ribbon Commission on America’s Nuclear Future report recognized that local citizens, stakeholders, and all affected levels of local government should have a meaningful role in the decision of whether or not to store nuclear waste in a particular community. The Commission emphasized that there should be “meaningful consultation” with local citizens and stakeholders about the decision-making process, the basis for decisions, the risks involved in hosting a facility, and the status of the siting process.

We agree with these recommendations. Safeguards must be included in the Department of Energy’s implementation of its consent-based siting strategy to ensure that those who would be most impacted by a particular proposal have a meaningful voice in the decision-making process. Specifically, we recommend that the Department of Energy’s strategy or rules require that:

- The decision-making process be as transparent as possible, and the basis for decisions are documented and accessible in real-time and plainly to local citizens and stakeholders.
- Notice must be provided to local citizens, all landowners within fifty miles, and other stakeholders (such as businesses) who reside within seventy-five miles of any proposed site prior to site approval.
- The applicant must be required to hold regular public informational meetings on the proposed facilities, from early site negotiation, to the pre-application process, and to the actual NRC application process.
- Landowners and stakeholders must be provided the opportunity to submit written comments to governmental decision-makers on the siting of potential facilities.

- Meaningful local consent must be obtained. A full democratic vote should be held by all citizens residing or owning land within fifty (50) miles of the proposed facilities prior to site approval and purchase.

Secrecy engenders automatic lack of consent, whereas full transparency may result in collaborative solutions. Further, notice, public meetings, opportunities for comment, and voting are effective and tested procedures to provide meaningful input and consent.

(2) What models and experience should the Department of Energy use in designing the process?

The process must consider the characteristics and location of the proposed site. For example, when a site is proposed very close to a county line, state line or other jurisdiction boundary, the consent or viewpoints of the nearby or adjacent county, city or jurisdiction must be actively sought out and given consideration. When a private entity deliberately seeks to site a storage or disposal site in a remote location close to a jurisdictional boundary, it should be evident to the Department that they are seeking an easy unopposed location for their facility.

An example is useful to illustrate why the particular characteristics of a proposed location are important to ensure that legitimate, effective, and fair consent is obtained.

For example, under one model that local landowners worry may be employed by applicants and/or governmental officials, the local consent could simply mean the consent of a single county commissioner's court in which the facility will be located. Hypothetically, under this model, the county commissioner's court for Jack County, Texas—which has a population of fewer than 9,000 people—could approve a facility in the southeast corner of the county. The facility could be sited directly adjacent to Wise and Parker counties and merely 15 miles from Tarrant County and 10 miles from Weatherford. If an entity could obtain Jack County approval, then people living in the Fort Worth and Weatherford areas would have no real input in the decision. While this example is hypothetical, we understand that companies in west Texas have attempted to obtain property for nuclear waste facilities near county borders without first coordinating with these adjacent jurisdictions. This is an example of a model that does not lead to fair and effective consent.

Similarly, when a state or county “consents” to a remote location, as in the example above, then the Department must consider whether the site was selected to deliberately avoid public scrutiny or oversight. In short, the consent-based siting protocol must not become a sham cover-scheme to locate these facilities in the low-population, mostly minority, or rural areas of the Nation.

(3) Who should be involved in the process for selecting a site, and what is their role?

Consent-based siting must include agreement at multiple jurisdictional levels. In particular, any strategy or rule-making should require that local citizens meaningfully participate in, and consent to, a nuclear waste site. After all, if a project is approved, it will be the local community, and not just governmental officials of that community, who will bear the risks associated with the stored nuclear waste.

Researchers at the University of Oklahoma’s Center for Energy, Security, and Society confirmed that a consent-based approach is very important to most Americans on the issue of nuclear waste storage and disposal. On a scale of 1-10, more people rated the importance of consent of the local community a “10” (extremely important) than any other number. Sixty-eight percent of people believed that the consent of citizens within fifty miles of a site was important; the same percentage of people believed that the consent of voters in the state was also important. And two-thirds of people believed that citizens should be able to withdraw consent and stop a project even after a site is selected.

This research also showed that eighty percent of United States residents supported a more inclusive definition of consent. This form of consent would involve local elected officials, the state governor, both U.S. senators, the U.S. congressperson representing the host community, the state’s environmental protection agencies, and a majority of citizens in a state-wide vote.

We believe that local consent, beyond that of elected officials, is perhaps the most important level of consent, given the allocation of risks in siting a nuclear waste facility.

More specifically, local “consent”—in whatever form is eventually recommended or required by the Department of Energy—must be tied to the actual location of the facility. Even in large, sparsely populated counties, such as those found in the Trans-Pecos region of Texas, this may mean that projects must be approved by more than the one county in which the facility is proposed. If a project will be sited within a certain distance of another county, then both counties should be involved in the process for approving the site. Based on the research of the Center for Energy, Security, and Society, more than two-thirds of people believed that the consent of citizens within fifty miles of a site was important. Similarly, if a proposed site is within fifty miles of another county, then that adjacent county should likely participate in the site selection and approval process, and landowners within fifty miles should participate in any local vote to approve the site.

Local consent, whether it consists of landowners within fifty miles of the proposed site or the entire county, should also be revocable as more information becomes available. As mentioned above, research from the University of Oklahoma found that there should be opportunities for withdrawing consent after the site assessment is initiated (76%), after scientific evaluation of the site suitability is completed (72%), and after an application for a license to construct a facility was submitted to the relevant federal agencies (66%). We believe that public meetings and public votes should be held at each of these stages to afford affected individuals the opportunity to revoke their consent after more information becomes available and prior to the full licensing of a proposed project.

(4) What information and resources do you think would facilitate your participation?

To date, the Department of Energy has held five public meetings in 2016 and intends to host three more public meetings later this year. These meetings have been in Chicago, Atlanta, Sacramento, Denver, and Boston, with planned meetings in Tempe, Boise, and Minneapolis.

The following graphic illustrates where public meetings have been held or are proposed:



Source: Department of Energy, Office of Nuclear Energy
(<http://www.energy.gov/ne/activities-and-events>)

Glaringly, Texas and New Mexico are missing. We are puzzled that no public meetings have been held in (or are being planned to be held in) either of these states. While we appreciate that the Department is hosting public meetings on consent-based siting, the failure to host a meeting in Texas or New Mexico is particularly puzzling because, as we understand the current situation, the only two potential facilities for interim storage for the storage of high-level nuclear waste are located in these two states.

While storage of nuclear waste is a national issue, if state, tribal, and local engagement is central to a consent-based siting strategy, we recommend that a future public meeting be held in either Texas and/or New Mexico to help local decision-makers and the public better understand the Department's recommendations and framework for the storage of spent nuclear fuel and high-level radioactive waste.

(5) What else should be considered?

As stated above, the Department must consider the particular circumstances of each proposed location to ensure fair and effective consent. The Department must consider the location within the most local jurisdiction (*i.e.* close to the county or state line)—if close to the county or state line, whether or not the next-nearest jurisdiction has actively consented or actively opposed such consent. If the next-nearest jurisdiction has actively opposed consent, then this must be given full local non-consent consideration by the department.

We appreciate the opportunity to comment on the consent-based siting process and look forward to the Department's response.

Sincerely,

Irvine & Conner, PLLC

by 
Charles W. Irvine

Consent Based Siting

From: bredl
Sent: Tuesday, June 14, 2016 4:59 PM
To: Consent Based Siting
Subject: Response to IPC
Attachments: 160614 BREDL comments on IPC.pdf

TO: US Dept. of Energy, Office of Nuclear Energy
FROM: Louis A. Zeller, Blue Ridge Environmental Defense League
RE: Response to IPC
DATE: 6/14/2016

On behalf of the Blue Ridge Environmental Defense League, I submit the attached response to the Invitation for Public Comment to Inform the Design of a Consent-based Siting Process.

Louis A. Zeller, Executive Director
Blue Ridge Environmental Defense League

<http://www.BREDL.org>
Founded in 1984, BREDL has chapters in Mississippi, Alabama, Tennessee, Georgia, South Carolina, North Carolina and Virginia

Blue Ridge Environmental Defense League

www.BREDL.org PO Box 88 Glendale Springs, North Carolina 28629 BREDL@skybest.com

June 14, 2016

Ernest J. Moniz, Secretary
US Dept. of Energy
Attn: Office of Nuclear Energy
1000 Independence Ave., SW
Washington, DC 20585
consentbasedsiting@hq.doe.gov

Re: Response to Invitation for Public Comment (IPC)

Dear Secretary Moniz:

On behalf of the Blue Ridge Environmental Defense League and our chapters in Virginia, North Carolina, South Carolina, Tennessee, Alabama and Georgia, I write to respond to the Invitation for Public Comment; specifically, to share our views on why concept of ñinformed consentö is so problematic with regard to radioactive waste policy.

From the beginning, the principle of informed consent has been centered in medical therapy and research. Since the early expositions on the concept in Nuremberg after World War 2, informed consent has been associated with what a physician may and may not do and in the area of research intrinsically experimental in nature. Is informed consent even applicable to the concept of radioactive waste disposal? I think this is a fundamental flaw in the Department of Energy's consent-based siting process which is the subject of this IPC.

In the United States, the ethics of informed consent were elucidated by the erstwhile U.S. Department of Health, Education and Welfare in its 1979 Belmont Report:¹

The consent process can be analyzed as containing three elements: information, comprehension and voluntariness.

1) Information. Most codes of research establish specific items for disclosure intended to assure that subjects are given sufficient information. These items generally include: the research procedure, their purposes, risks and anticipated benefits, alternative procedures (where therapy is involved), and a statement offering the subject the opportunity to ask questions and to withdraw at any time from the research.

¹ *The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research*, The National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, April 18, 1979, available May 2013 at <http://www.hhs.gov/ohrp/humansubjects/guidance/belmont.html>

- 2) Comprehension. The manner and context in which information is conveyed is as important as the information itself. For example, presenting information in a disorganized and rapid fashion, allowing too little time for consideration or curtailing opportunities for questioning, all may adversely affect a subject's ability to make an informed choice.
- 3) Voluntariness. An agreement to participate in research constitutes a valid consent only if voluntarily given. This element of informed consent requires conditions free of coercion and undue influence. Coercion occurs when an overt threat of harm is intentionally presented by one person to another in order to obtain compliance. Undue influence, by contrast, occurs through an offer of an excessive, unwarranted, inappropriate or improper reward or other overture in order to obtain compliance. Also, inducements that would ordinarily be acceptable may become undue influences if the subject is especially vulnerable.

The Nuclear Waste Administration Act² and the President's Blue Ribbon Commission advocate a consent-based approach to finding nuclear waste management facilities. But how would a newly created Nuclear Waste Administration carry out its charge honorably, impartially and ethically? As outlined above, presenting information in a tendentious fashion, or allowing too little time for consideration or curtailing opportunities for questioning, adversely affects a subject's ability to make an informed choice. Plus there is always the possibility that silence may be construed as consent. The element of voluntariness is sharply questionable with regard to the communities which will likely become the subjects of this process. Even inducements that would ordinarily be acceptable may become undue and improper if the subject is especially vulnerable, such as an economically depressed or politically powerless community.

Working in communities in the Southeast, we are well aware of radioactive waste initiatives seeking potential waste dump communities. The Blue Ridge Environmental Defense League was founded in 1984 because of one such program. These initiatives invariably come with promises of jobs and economic development, promises which short-circuit debate and sway elected officials.

The goal of the Blue Ridge Environmental Defense League is to counter technical jargon that prevents directly affected residents from effective democratic participation. Public participation is essential to protect our families and communities from becoming victims of industrial contamination.

² S.854 - Nuclear Waste Administration Act of 2015, Status: Read twice and referred to the Committee on Energy and Natural Resources March 24, 2015

Consent of the governed is enshrined in the Declaration of Independence: öThat to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed.ö Consent of the governed is anathema to the ödivine right of kings,ö which it supplanted. In many ways, electric power companies are the 21st Century equivalent of the Second Estate. This modern equivalent of the nobility has enormous financial and political resources. They enjoy special privileges; for example, claiming the rights of natural persons while being virtually immortal and exceptionally free from prosecution.

For decades, the transfer of liability from private hands to public entities has been the underlying factor driving nuclear waste siting initiatives. The assumption of this liability by the people via a government agency is an unacceptable transfer of wealth from poor to rich.

Therefore, we can see no just application of consent, informed or otherwise, to the imposition of a nuclear waste legacy lasting millennia. Further, it is simply beyond the capability of a government agency to ensure safety and security to people or communities for the duration which high-level radioactive waste will remain a hazard to human health.

Thank you for this opportunity to share our views.

Respectfully,



Louis A. Zeller, Executive Director

Blue Ridge Environmental Defense League
PO Box 88
Glendale Springs, NC 28629
BREDL@skybest.com

<http://www.BREDL.org>

Founded in 1984, BREDL has chapters in Alabama, Tennessee, Georgia, South Carolina, North Carolina, Virginia and Maryland.

Consent Based Siting

From: Sheila Parks
Sent: Tuesday, June 14, 2016 12:21 PM
To: Consent Based Siting
Cc: Sheila Parks
Subject: Response to IPC

Importance: High

I am Dr. Sheila Parks, Ed.D, founder of On Behalf of Planet Earth, a grassroots group dedicated to CLOSING PILGRIM NOW AND CLOSING ALL NUCLEAR POWER PLANTS NOW.

I have read Beyond Nuclear's standing ovation statement to you called "WE DO NOT CONSENT." I agree with every word of it. So I want to tell you here in my response what I do consent to.

You talk about "fairness in siting" and say that there would be a "wide range of communities..." who would want this siting, this high level radioactive waste that lasts millions of years and gives leukemia and other cancers to all, especially babies and children. I AM CONSENTING TO GIVING YOU A FAILING GRADE. The only communities who *might* want any siting would most likely be the lowest income ones in the country and most of these will be Native Americans on "Tribal Lands" (whom you already say that about) and other communities of people of color, because of our immoral white supremacist culture.

I AM CONSENTING TO PUTTING HIGH LEVEL AND ALL LEVEL RADIOACTIVE WASTE IN THE FRONT AND BACK YARDS OF: The NRC, DOE, White House, all those in Congress who like nuclear power plants and vote millions of dollars to do more research on nuclear power technology, owners of nuclear power plants, those who have stock in nuclear power plants, and Bill Gates, Bill McKibben, James Hansen, Elon Musk, etc. - all those who think nuclear power plants are safe and that we need them to stop the climate crisis.

I AM CONSENTING TO HAVING ALL THE PEOPLE AND GROUPS NAMED ABOVE ^ MOVING TO LIVE NEAR NUCLEAR POWER PLANTS NOW

I AM CONSENTING TO THE FACT THAT NUCLEAR POWER PLANTS ARE IMMORAL, PUBLIC HEALTH AND PUBLIC SAFETY HAZARDS AND CRIMES AGAINST HUMANITY, ALL LIVING THINGS, AND PLANET EARTH HERSELF

As part of my testimony I am including the following documents for your information about nuclear power plants. I AM CONSENTING TO YOUR READING ALL OF THEM NOW.

"There's a very clear association between increased child leukemias and proximity to NPPs," Dr. Ian Fairlie warns us.

In "The Medical Implications of Fukushima," Dr. Helen Caldicott tells us that "Children are 10 to 20 times more vulnerable to the carcinogenic effects of radiation than adults. Little girls are twice as sensitive as little boys and women are more sensitive than men. Fetuses are thousands of times more sensitive."

Nuclear power has a big carbon footprint, [radiation truth](#) tells us. "People that claim nuclear power is carbon-neutral are considering only the direct emissions of the plant itself. In fact, it has the **largest carbon footprint of any energy source other than fossil fuels....** Monitoring of radioactive waste - Carbon pollution generated by monitoring and guarding the radwaste for eternity." Nuclear power has another footprint: "**Mobile Chernobyl** - Transporting nuclear waste to a central repository risks contamination along highways and rail lines, by accident or terrorists...."

["Millions of tons of radioactive soil and debris can be seen packed in black bags in a temporary storage site at Tomioka, Fukushima prefecture."](#) A drone flies over the bags; published April 17, 2015.

[Radiation tragically affected plants, birds and butterflies very strongly in Chernobyl and Fukushima, \[4:06-8:07 sum up\]](#), Dr. Timothy Mousseau, researcher and biology professor, has reported.

On April 25, 2016, Dr. Timothy Mousseau again reports that "Much like human survivors of the Hiroshima and Nagasaki atomic bombs, birds and mammals at Chernobyl have cataracts in their eyes and smaller brains. These are direct consequences of exposure to ionizing radiation in air, water and food. Like some cancer patients undergoing radiation therapy, [many of the birds have malformed sperm. In the most radioactive areas, up to 40 percent of male birds are completely sterile, with no sperm or just a few dead sperm in their reproductive tracts during the breeding season.](#)

"Tumors, presumably cancerous, are obvious on some birds in high-radiation areas. So are developmental abnormalities in some plants and insects....

"There are currently more than 400 nuclear reactors in operation around the world, with 65 new ones under construction and another 165 on order or planned. All operating nuclear power plants are generating large quantities of nuclear waste that will need to be stored for thousands of years to come. Given this, and the probability of future accidents or nuclear terrorism, it is important that scientists learn as much as possible about the effects of these contaminants in the environment, both for remediation of the effects of future incidents and for evidenced-based risk assessment and energy policy development."

Nuclear power is one of the most important issues now facing our planet, on the same level as the climate crisis. Radioactive waste is the most toxic poison made by humankind. Greenpeace says "Nuclear waste is produced at every stage of the nuclear fuel cycle from uranium mining and enrichment, to reactor operation and the reprocessing of spent nuclear fuel. [Much of this nuclear waste will remain hazardous for hundreds of thousands of years, leaving a poisonous legacy to future generations.](#)" Plutonium 239 remains hazardous for 240,000 years, Uranium 235 for 7.13 billion years.

[There is no safe place to store radioactive waste, 95% of which comes from commercial nuclear power](#), Nuclear Information and Resource Service (NIRS) reminds us. In its new campaign, "Stop Mobile Chernobyl — No Fukushima Highways," NIRS says, "An 'interim' storage site would begin the transport of tens of thousands of casks of lethal high-level nuclear waste across the entire United States, potentially affecting 100 million Americans who live within a mile or two of likely transport routes--our nation's roads and railways.

"Each truck-sized container would hold up to 40 times the long-lasting radioactivity released by the Hiroshima atomic bomb. The much larger train/barge containers would each hold over 200 times Hiroshima's long-lasting radioactivity [emphasis mine]. These shipping containers are vulnerable to severe accidents. Even a fraction of a single shipping container's radioactive cargo escaping into the environment could prove catastrophic for an entire area downwind and downstream. The U.S. Nuclear Regulatory Commission does not even require them to undergo full-scale physical safety testing! The containers are also vulnerable to terrorist attack, making them massive 'dirty bombs on wheels.'"

In an extensive and detailed 2011 report by *The Associated Press*, we learn that [75% of nuclear power plants leak radioactivity](#). It must be worse by now in 2016. Npp's leak radiation 24/7 - into our air, water, soil, food, bodies, everything. Beyond Nuclear cautions that there is [no safe dose of ionizing radiation](#).

Again, from Caldicott in 2011: ["Nuclear reactors are so unsafe that no insurance companies will insure them. Only public subsidies can sustain their construction.](#) 'The good news,' Caldicott asserts, 'is that there is no need to build new nuclear power plants to provide for the projected energy needs of the future. Indeed, it would be possible, using other forms of electricity generation, to close down most of the existing nuclear reactors within a decade. There is enough wind between the Rocky Mountains and the Mississippi River alone to supply three times the amount of electricity that America needs.' At the March 18 news conference Caldicott quoted Einstein as saying, 'The splitting of the atom changed everything but [humans'] mode of thinking.'"

"A group of engineers within the U.S. nuclear power regulator is concerned that [a design flaw in nearly all U.S. nuclear plants could endanger emergency core cooling systems](#). The group has urged the regulator to order power station operators to either fix the problem or face mandatory shutdowns." This article is posted on *Reuters*, March 1, 2016.

Arnie Gundersen on CCTV, (video and transcript) about his February 2016 Japan trip says, "We had one woman who ran from her house to evacuate carrying her dog. About a day after the accident, they realized that she needed to be evacuated. And so she runs barefoot to her car, gets in her car, drives to the resettlement community. She's highly radioactive. They make her – especially her feet – they make her take her socks off and take showers, wash her down before they let her in. [And her feet were black for three years from radiation damage. And that's not being spoken about in any of the medical journals.](#)"

Whether we say 300 tons of radiated water have been flowing into the Pacific Ocean every day since Fukushima, March 11, 2011, or whether we say 83,000 gallons/day of radiated water - an incomprehensible amount of poisoned water is flowing into our one ocean.

["The environmental impacts of the Fukushima Daiichi nuclear disaster will last decades to centuries, warns a new Greenpeace Japan report. Man-made, long-lived radioactive elements are absorbed into the living tissues of plants and animals and recycled through food webs, and carried downstream to the Pacific Ocean by typhoons, snowmelt, and flooding.](#)

""The government's massive decontamination program will have almost no impact on reducing the ecological threat from the enormous amount of radiation from the Fukushima nuclear disaster. Already, over 9 million cubic metres of nuclear waste are scattered over at least 113,000 locations across Fukushima prefecture,' said Kendra Ulrich, Senior Nuclear Campaigner at Greenpeace Japan."

"The environmental impacts are already becoming apparent, with studies showing:

"High radiation concentrations in new leaves, and at least in the case of cedar, in pollen; apparent increases in growth mutations of fir trees with rising radiation levels; heritable mutations in pale blue grass butterfly populations and DNA-damaged worms in highly contaminated areas, as well as apparent reduced fertility in barn swallows; decreases in the abundance of 57 bird species with higher radiation levels over a four year study; and high levels of caesium contamination in commercially important freshwater fish; and radiological contamination of one of the most important ecosystems – coastal estuaries."

"The Indigenous World Under A Nuclear Cloud" [exposes nuclear injustice and some horrific details of the health, ecological and cultural consequences of nuclear power.](#) [This is an incredible site.]

"Arnie [Gundersen] visited [in February 2016] the modern ghost towns, abandoned houses, and far stretching roads lined with plastic bags of radioactive garbage that have replaced the once bustling neighborhoods and

cities of Fukushima. Formerly home to thousands, the massive release of radiation due to the meltdown at Fukushima Daiichi has forced residents to evacuate and destroyed their beautiful homeland. Join the Fairewinds Crew and ask yourself this: With 100 operating atomic power reactors generating electricity in the U.S., what's so different about your home, your town, your state that [what happened to Fukushima](#) couldn't happen to you and your family?"

Again, Gundersen speaks about his recent trip to Japan in *Against the Will of the People*, "But the other thing [I learned on the last day of the trip was that there's a huge spike in the death rates within Fukushima Prefecture for young children compared to what it was in previous years](#). But that story has been stifled by the Japanese medical and government agencies. Nobody's publishing the data that the Japanese have been publishing for years leading up to the disaster. So where are the death data on Fukushima Prefecture? And the answer is it hasn't been published because the Japanese government doesn't want it out there. When you control the medical community, the epidemiological data that you need to prove a case is really, really difficult."

Joseph Mangano and Janette D. Sherman reported in February 2016, that "[Today, one of the main sources of human exposure to radioactive iodine is nuclear power reactors](#). Declaring 'we don't know why' and continuing to diagnose and treat the growing number of Americans suffering from thyroid disease is not sufficient. Causes must be identified, preventive strategies must be implemented, and ultimately policy makers will have to take a serious look at closing the 99 nuclear reactors currently operating in the United States."

[In a heart-aching quote from Svetlana Alexievich, winner of the 2015 Nobel Prize in Literature, she tells people's oral stories from Chernobyl. "It required a lot of courage to tell the truth about Chernobyl. It still does.](#) Believe me! But you need to see this footage: the blackened faces of the firemen, like graphite. And their eyes? These are the eyes of people who already know that they're leaving us. There's one fragment showing the legs of a woman who the morning after the catastrophe went to work on her plot of land next to the atomic station. She's walking on grass covered with dew. Her legs remind you of a grate, everything's filled with holes up to the knees."

Sincerely,

Sheila Parks, Ed.D.
Founder, On Behalf of Planet Earth



Consent Based Siting

From: Shaw, Noah C (NYSERDA)
Sent: Tuesday, June 14, 2016 9:13 AM
To: Consent Based Siting
Cc: Dean, Janice A (NYSERDA); Bembia, Paul J (NYSERDA)
Subject: Response to IPC -- NYSERDA
Attachments: NYSERDA comments 2016 06 14.pdf

Please find attached for filing the Comments of the New York State Energy Research and Development Authority on the United States Department of Energy's Invitation for Public Comment to Inform the Design of a Consent-Based Siting Process for Nuclear Waste Storage and Disposal Facilities.

Noah C. Shaw
General Counsel & Secretary

NYSERDA

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**COMMENTS OF THE NEW YORK STATE
ENERGY RESEARCH AND DEVELOPMENT AUTHORITY
ON THE UNITED STATES DEPARTMENT OF ENERGY'S INVITATION FOR
PUBLIC COMMENT TO INFORM THE DESIGN OF A CONSENT-BASED SITING
PROCESS FOR NUCLEAR WASTE STORAGE AND DISPOSAL FACILITIES**

I. Introduction

On December 23, 2015, the United States Department of Energy's Office of Nuclear Energy Fuel Cycle Technologies issued in the Federal Register an "Invitation for Public Comment to Inform the Design of a Consent-Based Siting Process for Nuclear Waste Storage and Disposal Facilities."¹ The New York State Energy Research and Development Authority (NYSERDA) appreciates the opportunity to comment on the Department of Energy's (DOE) proposed Consent-Based Siting process and, in particular, appreciates the opportunity to clarify the origins and legal status of the High Level Radioactive Waste (HLW) stored at the West Valley Demonstration Project (WVDP).² NYSERDA's point of contact for this submission is Noah Shaw, General Counsel,

DOE is seeking input on four items related to Consent-Based Siting, including the process for selecting a site, the models and experience that should be used, who should be involved, and the information and resources that would facilitate public participation. DOE also asked for input on "other considerations."

NYSERDA's comments (which fall into the category of "other considerations") provide information that forms the basis for New York State's position that West Valley HLW resulted "from atomic energy defense activities" as defined in the Nuclear Waste Policy Act (NWPA) –

¹ 80 Fed. Reg. 79872 (Dec. 23, 2015).

² NYSERDA owns, in trust for the State, the Western New York Nuclear Service Center.

i.e., it is “defense waste” – and is therefore eligible for disposal in a federal defense waste repository. If DOE were to agree, the State of New York would be relieved of the cost of disposing of the West Valley HLW, which result would properly be consistent with not only the applicable law but also with the root intent of the parties as expressed since the beginning of West Valley operations more than 50 years ago.

Therefore, as DOE’s Consent-Based Siting process advances and DOE considers the development of a defense waste repository, the West Valley HLW inventory should be included in the planning process.

II. History of West Valley Activities

A. Spent Nuclear Fuel Reprocessing at West Valley

At the end of the Second World War, the federal government was solely responsible for atomic energy activities in the United States. In keeping with the federal government’s desire to establish a civilian nuclear power industry, DOE’s predecessor, the Atomic Energy Commission (AEC), established a program to commercialize the reprocessing of spent nuclear fuel (SNF). As part of that commercialization program, the AEC embarked upon an initiative to make classified reprocessing technology available to private industry, and committed to provide assistance in the form of a baseload of SNF – largely from defense-related sources – until additional civilian nuclear power plants could be constructed. The AEC program also allowed the use of AEC facilities for development work and training.³

The AEC’s commercialization program led W.R. Grace and Company to establish Nuclear Fuel Services, Inc. (NFS) for the purpose of designing, building, and operating an SNF

³ U.S. DOE, Western New York Nuclear Service Center Companion Report, TID21905 (1978) at pp. 1-3. Copies of any information referenced in these comments are available from NYSERDA.

reprocessing facility on New York State-owned property near the hamlet of West Valley, approximately 45 miles south of the city of Buffalo. Because the AEC determined that a private entity was an improper long-term steward for the waste,⁴ and at the request of the AEC, in 1963 NFS submitted an amendment to its application for an operating license indicating that New York retained ownership of the site⁵ and agreed to provide perpetual care for the waste.

The NFS reprocessing facility at West Valley, which operated from 1966 to 1972, was the only SNF reprocessing facility in the United States operated by an entity other than the federal government. After operating for six years, NFS shut down the facility to make modifications and process improvements. At this same time, the AEC was considering significant regulatory changes that would have required the solidification of high-level reprocessing wastes within five years of generation, shipment of the solidified waste to a federal repository within 10 years, and changing the seismic design considerations for fuel cycle facilities.⁶ It was unclear whether the existing, highly contaminated West Valley facilities would have met these new seismic requirements.⁷ Given that uncertainty, and the estimated \$600M cost of potential compliance, NFS announced in 1976 that it was withdrawing from the reprocessing business and would turn the West Valley reprocessing facility over to New York State.

⁴ Letter, Robert Lowenstein, Director, Division of Licensing and Regulation, Atomic Energy Commission, to Oliver Townsend, Chairman of the New York State Atomic Safety and Development Authority (Feb. 13, 1963).

⁵ *In the Matter of Nuclear Fuel Services, Inc., and New York State Atomic Research and Development Authority*, Amendment No. 1 to the Application for Licenses of the New York State Atomic Safety and Development Authority (Apr. 9, 1963); *see also* Letter, Oliver Townsend, Chairman of the New York State Atomic Safety and Development Authority, to Robert Lowenstein, Director, Division of Licensing and Regulation, Atomic Energy Commission, In Re: Nuclear Fuel Services, Inc. et al., Application for Licenses, AEC Docket No. 50-201 (, 1963).

⁶ See Rochlin, G., et al., Bulletin of the Atomic Scientists, *West Valley: Remnant of the AEC* (“Remnant of the AEC”) (Jan. 1978), 22-25, citing Siting of Commercial Fuel Reprocessing Plants and Related Waste Management Facilities; Statement of Proposed Policy, 34 Fed. Reg. 8712 (June 3, 1969).

⁷ New York Congressman Lundine expressed doubt that the West Valley site could comply with the new seismic regulations for storage of waste. *Hearings Before the Subcommittee on the Environment and the Atmosphere of the Committee on Science and Technology*, 95th Cong. (First Session, June 15, 16, 1977, No. 20) at 74 (“1977 Hearing”).

During Congressional deliberations that followed the NFS announcement, the West Valley site was recognized as “an artifact” of a premature federal program.⁸ In fact, by the time the federal government’s new policy on the solidification and shipment of reprocessing wastes was fully developed in 1971, 600,000 gallons of liquid HLW had already been placed in long-term storage in West Valley’s underground tanks.⁹ Had the federal government established its national policy regarding reprocessing facilities and wastes prior to the design, construction and operation of the West Valley facility, the design of the plant would likely have been “altered considerably.”¹⁰

B. The West Valley Demonstration Project

i. *The West Valley Demonstration Project Act*

Between 1976, when NFS closed the operation at West Valley, and 1980, the future of West Valley wastes was unclear. During that time there were extensive state and federal discussions regarding what to do with the West Valley site, and whose responsibility it would be. In 1980, Congress directed DOE to conduct a study of options for West Valley. The options included federal aid for the clean-up, federal operation of the clean-up, and permanent federal ownership of the site.¹¹ The DOE study acknowledged the pervasive federal role in the creation of the reprocessing facility, and indicated that DOE was neutral between the option of federal operation of the site and federal ownership of the site.¹²

⁸ Statement of N. Richard Werthamer, Chairman of NYSERDA, to the Environment and the Atmosphere Subcommittee of the House Committee on Science and Technology Regarding Nuclear Reactor Decommissioning, U.S. Nuclear Regulatory Commission (June 15, 1977) (1977 Hearing at 3).

⁹ *Id.*

¹⁰ *Id.* at 60 (statement of Richard Cunningham, Acting Director, Fuel Cycle and Material Safety, Nuclear Regulatory Commission).

¹¹ The Department of Energy Act of 1978 – Civilian Applications, Public Law 95-238 (Feb. 25, 1978), section 105.

¹² U.S. DOE, Western New York Service Center Study, Final Report for Public Comment, TID 21905-1, 1978, at 39.

After this study was completed, Congressional hearings were held on decommissioning, decontaminating, and remediating West Valley. Congressional discussion during this time period is replete with references to the federal government's responsibility for the site and the defense character of the waste at West Valley.

For example, Dr. John M. Deutch, then-Acting Secretary for Energy Technology at DOE, described the waste at West Valley to a Congressional subcommittee as "high-level waste which contain[s] both commercial and military wastes[.]"¹³ He explained that discussions had begun between DOE and NYSERDA concerning the future of West Valley, whereby "[t]he Department of Energy would be responsible for the overall management and responsibility associated with the cleanup of the site" and that "[t]he Federal Government would agree to accept responsibility for the ultimate removal of spent fuel and high-level wastes from the site when a Federal repository was available."¹⁴ On March 19, 1980, Senator Moynihan introduced the West Valley Demonstration Project Act (WVDPA).¹⁵ Senator Moynihan reiterated Dr. Deutch's point in hearings of the Senate Subcommittee on Nuclear Regulations on his bill, stating that "[it] is understood [] that the Federal Government has taken over as a matter of policy, has agreed to assume responsibility at West Valley."¹⁶

Similarly, on the House side, in the House Oversight Hearing before the Subcommittee on Energy and the Environment, Committee on Interior and Insular Affairs, DOE's then-Acting

¹³ Department of Energy Fiscal Years 1980-81 Authorization, Hearings Before the Senate Subcommittee on Energy Research and Development of the Committee on Energy and Natural Resources, Statement of Dr. John M. Deutch, Acting Assistant Secretary for Energy Technology at the Department of Energy (96th Cong., Mar. 9 – Apr. 5, 1977) at 981.

¹⁴ *Id.* at 982.

¹⁵ Public Law 96-369 (1980).

¹⁶ *Hearings Before the Senate Subcommittee on Nuclear Regulations of the Committee on Environment and Public Works*, 96th Cong. 240 (1979) (statement of Senator Moynihan).

Deputy Assistant Secretary for Energy Technologies Worth Bateman acknowledged that damaged high level fuel elements from defense activities at Hanford were sent to West Valley.¹⁷ Congressman Lundine noted that three-quarters of material reprocessed at West Valley was defense waste under the AEC baseloading agreement.¹⁸ NYSERDA's then-President stated the same in sworn testimony to the same Congressional subcommittee.¹⁹

In subsequent hearings, the House Committee on Interstate and Foreign Commerce repeatedly stated in the WVDPA deliberations that the activities at West Valley had been, in large part, defense related. In particular, the committee stated:

The Committee recognizes that a substantial quantity of this waste was produced in the course of fulfilling contracts with the Atomic Energy Commission and that most of such contracts were related to the military program. Because of the extensive past Federal involvement, the Committee is willing to have the government pay 90 percent of the cost of the project.²⁰

The defense-related activities at West Valley were so significant to the consideration of the bill that the committee reiterated the point, stating,

Most of the reprocessing activities which occurred at the site were performed under contracts with the Atomic Energy Commission, and *a majority of these were a part of the military, as opposed to the commercial, program.* Because of this, and because of the benefits which will accrue to the Federal government as a result of demonstrating solidification technologies, this Committee has provided a greater Federal contribution than would normally be provided to a typical remedial action program.²¹

¹⁷ *Oversight Hearing before the Subcommittee on Energy and the Environment, Committee on Interior and Insular Affairs, Amending The Department of Energy Authorization Bill For Fiscal Year 1980, Regarding Remedial Action At West Valley, New York* (May 31, 1979) ("1979 Hearing") at 20.

¹⁸ *Id.* at 18.

¹⁹ *Id.* at 42.

²⁰ Committee on Interstate and Foreign Commerce Report on the West Valley Demonstration Project Act, No. 96-100, Part II, 96th Cong. (Sept. 15, 1980) at 14 (emphasis added).

²¹ *Id.* at 15 (emphasis added). *See also* Statement of Representative Dingell, 126 CONG. REC. 25351 (1980) ("Furthermore, the past extensive Federal involvement in the development and operation of the re-processing activities at the site distinguishes this program from a typical remedial action program. Over 70 percent of the spent fuel reprocessed on the site was under contract with the Atomic Energy Commission, and most of these were for the military as opposed to the commercial programs") and 126 CONG. REC. 25353, Statement of Representative Royer ("The waste at West Valley is a result of both military activities and civilian reprocessing.").

Similarly, Senator Moynihan, the WVDPA's sponsor and one of its most active proponents, explained in a 1982 interview, after the WVDPA was passed, that the reason why "the [federal] taxpayer [is] footing most of the bill" is that "the greatest share of the waste was placed at West Valley by the Defense Department . . ."²²

In 1980, Congress passed the WVDPA, which directed DOE to conduct and pay 90 percent of the costs of a high-level waste solidification and decommissioning demonstration project at the Western New York Nuclear Service Center. The project would include the following tasks:

- carry out a demonstration project to solidify the high-level radioactive waste in the underground tanks;
- develop containers suitable for the disposal of the solidified high-level waste;
- transport the solidified waste to a federal repository for permanent disposal;
- dispose of low-level and transuranic waste; and,
- decontaminate and decommission the facilities used in the solidification process.²³

ii. The Cooperative Agreement

The WVDPA also required DOE to enter into a Cooperative Agreement with NYSERDA, which holds the West Valley site in trust for New York State.²⁴ The Cooperative Agreement grants DOE exclusive use and possession of the central 200 acres of the site, including most of the facilities containing radioactive materials, and restates DOE's obligation to

²² Reitz, Tom, *Success of West Valley Project Holds Key to Future of Nuclear Power*, Springville J. (Mar. 4, 1982).

²³ Public Law 96-368.

²⁴ *Id.*; the DOE-NYSERDA Cooperative Agreement is available here: http://www.wv.doe.gov/WVDP_WWW/Document_Index/DOE_NYSERDA_Cooperative_Agreement.pdf (last accessed June 10, 2016).

decontaminate and decommission all facilities and premises used in conducting the project. The Cooperative Agreement also obligates NYSERDA to turn over the so-called “perpetual care fund,” established in a 1963 Waste Storage Agreement between NYSERDA’s predecessor, the New York State Atomic Research and Development Authority, and NFS,²⁵ to DOE upon delivery of the WV HLW to an appropriate federal repository for disposal.²⁶ NYSERDA obtained the perpetual care fund as part of a settlement between NYSERDA and NFS after NFS ceased operations, and has maintained the fund in an interest bearing account since that time. As of March 31, 2016, the fund contains \$29.2 million.

iii. The West Valley Demonstration Project

Since the WVDPA was passed more than 30 years ago, DOE has made significant progress at the site. DOE completed the solidification of the high-level waste in 2002²⁷ (more than 98 percent of the liquid HLW was removed from the underground waste storage tanks and solidified into 19,000 drums of cemented low-level waste and 275 high-level waste glass canisters²⁸); the 19,000 drums of cemented low-level waste were successfully shipped to the Nevada Test Site for disposal; and the high-level waste glass canisters, which are contained in stainless-steel containers, are stored in a shielded cell in the former reprocessing plant.²⁹

DOE is presently conducting “Phase 1” decommissioning activities, including waste processing and shipping, asbestos removal, and planning for the removal of the massive, highly

²⁵ See Waste Storage Agreement, New York State Atomic Safety and Development Authority and Nuclear Fuels Services, Inc. (May 15, 1963).

²⁶ Notably, as explained in the Congressional record in years prior to the Cooperative Agreement’s execution, “[t]he funding arrangement contemplated only the eventual transfer of the waste to new tanks, in perpetuity, and did not consider facility decommissioning during the early part of the license term.” 1977 Hearing at 60 (Remarks of Richard Cunningham, Acting Director, Fuel Cycle and Material Safety, U.S. Nuclear Regulatory Commission).

²⁷ <http://www.nyserda.ny.gov/Cleantech-and-Innovation/West-Valley/West-Valley-Demonstration-Project>

²⁸ *Id.*

²⁹ *Id.*

contaminated Main Plant Process Building.³⁰ The critical path activity for removing the building is the relocation of the 275 high-level radioactive waste glass canisters to a new dry-cask interim storage facility that will be constructed on site.³¹ As of January 2016, 20 canisters have been relocated to an interim, on-site storage pad.³² This relocation is expected to be completed by January 2017.³³

III. The Nuclear Waste Policy Act

Only two years after Congress passed the WVDPA and before the work of the WVDPA had even begun, Congress passed the Nuclear Waste Policy Act (NWPA) in response to the accumulation of SNF at commercial reactors. The NWPA, as amended, provides, *inter alia*, a framework for the development of HLW repositories and establishes a program of research, development, and demonstration regarding the disposal of HLW and SNF. As part of that framework, the NWPA provides that “[t]he costs resulting from permanent disposal of high-level radioactive waste from atomic energy defense activities should be paid by the Federal Government.”³⁴ The NWPA also defines “atomic energy defense activity” as “any activity of the Secretary performed *in whole or in part*” in carrying out, among other things, “defense nuclear materials production, defense nuclear waste and materials by-products management, and defense research and development.”³⁵

³⁰ *Id.*

³¹ *Id.*

³² *Id.*

³³ *Id.*

³⁴ 42 U.S.C. § 10107(b)(2).

³⁵ 42 U.S.C. § 10101(3) (emphasis added). Legislative history indicates the Congressional view that the NFS operation at West Valley was a research and development effort. *See* 1979 Hearing at 2 (Comments of Chairman Udall).

IV. State and Federal Discussions Regarding Disposal of West Valley HLW

Despite the statements in the legislative history of the WVDPA and the facts described in Section VI below, DOE presently asserts that West Valley HLW is “commercial waste”³⁶ – *i.e.*, that the HLW at West Valley is *not* “from atomic energy defense activities” and therefore the fee for ultimate disposal of the waste should be borne by the State. But DOE’s position on this question changed in 1986, notably, at approximately the same time that DOE realized that the NFS perpetual care fund would not be sufficient to cover the costs of disposal.

In 1983, when the perpetual care fund contained approximately \$6 million and shortly after the execution of the Cooperative Agreement, Robert Morgan, DOE’s Project Director of the Nuclear Waste Policy Act Project Office, stated in a letter to NYSERDA that, “There is every indication that the perpetual care fund that will transfer to DOE upon completion of the project ... will adequately cover the estimated disposal costs of the solidified wastes.”³⁷ Furthermore, he recognized that DOE would manage the waste after it was delivered to a repository.³⁸

In 1986, however, DOE’s Inspector General (IG) issued a report on civilian contributions to the Nuclear Waste Storage Fund. In that report, the IG estimated West Valley HLW disposal costs to be \$68.7 million and stated – without any apparent factual analysis of the kinds of wastes or activities that had been undertaken at the site – that DOE and the State of New York were

³⁶ U.S. Department of Energy, Assessment of Disposal Options for DOE-Managed High-Level Radioactive Waste and Spent Nuclear Fuel (Oct. 2014), at v (“Commercial waste (e.g., HLW at West Valley ...) is not eligible for a repository exclusively for DOE-managed HLW and SNF from defense or DOE research and development activities.”).

³⁷ Letter, Robert L. Morgan, Project Director, Nuclear Waste Policy Act Project Office, U.S. Department of Energy, to William Cotter, Chairman, New York State Energy Research and Development Authority (June 27, 1983).

³⁸ *Id.*

required to enter into a fee contract for the costs of disposal.³⁹ This was the first time that DOE had indicated that the State would have to pay disposal fees in addition to what was held in the perpetual care fund, and, moreover, it was the first time DOE had designated the HLW at West Valley as non-defense waste under the NWPA. The IG's report acknowledged that the Cooperative Agreement required the State to turn over the perpetual care fund to DOE in 1997, and that DOE had assumed this fund with interest would adequately cover the estimated disposal costs of the solidified wastes, but nevertheless stated that an agreement regarding additional fees was required.⁴⁰ DOE's 1986 change in position, contemporaneous with its significant upward revision to the estimated disposal costs, sparked nearly 20 years of unsuccessful discussion and negotiation between DOE and NYSERDA to resolve this issue.

V. Recent National Defense Waste Repository Considerations

In October 2014, DOE released a document titled "DOE Assessment of Disposal Options for DOE-Managed High Level Radioactive Waste and Spent Nuclear Fuel."⁴¹ The report assesses the technical options for the permanent disposal of HLW and SNF managed by DOE. Specifically, it considers whether DOE-managed HLW and SNF should be disposed of with commercial SNF and HLW in one geologic repository or whether there are advantages to developing separate geologic disposal pathways for some DOE-managed HLW and SNF.

In a follow-up memorandum to its 2014 report, DOE recommended that the President make an NWPA finding that a repository for only HLW from atomic energy defense activity is

³⁹ U.S. Department of Energy, Office of Inspector General, Report on Accuracy of Fees Paid by the Civilian Power Industry to the Nuclear Waste Fund, DOE/IG-0231 (Oct. 27, 1986) ("IG Report").

⁴⁰ IG Report at 11-12.

⁴¹ DOE Assessment of Disposal Options for DOE-Managed High Level Radioactive Waste and Spent Nuclear Fuel (Oct. 2014), *available at* <http://www.energy.gov/ne/downloads/assessment-disposal-options-doe-managed-high-level-radioactive-waste-and-spent-nuclear> (last accessed May 17, 2016) ("DOE 2014 Report").

required – as opposed to requiring that any federal repository be able to accept both defense and commercial waste.⁴² Citing this DOE recommendation, President Obama issued a Presidential Memorandum on March 24, 2015 making such a finding.⁴³

Among the other noted benefits of developing a defense waste-only repository, DOE asserted that such a repository would provide a pathway for nearer-term progress on the DOE cleanup mission and potentially create savings to taxpayers from avoided costs.⁴⁴ DOE has not provided a projected date by which a defense waste-only facility could be built.

VI. Facts Showing That West Valley HLW is Predominantly from Atomic Energy Defense Activities

A. DOE Records and Other Public Records Indicate Defense Activity

In addition to the statements in the legislative history regarding the defense-related character of West Valley activities, records in NYSERDA's possession and that NYSERDA has inspected show that the material that came and went from West Valley was, in significant part, - related.

During its six years of operation, the NFS West Valley facility reprocessed approximately 640 metric tons of SNF. NYSERDA's review of the facility's historical records shows that approximately 60 percent of that spent fuel (380 metric tons) came from the N-Reactor at the Hanford Site in Washington State through the AEC's baseload agreement with NFS. The balance of the SNF reprocessed at West Valley came from civilian nuclear power plants or research power reactors.

⁴² Presidential Memorandum -- Disposal of Defense High-Level Radioactive Waste in a Separate Repository (Mar. 24, 2015), available at <https://www.whitehouse.gov/the-press-office/2015/03/24/presidential-memorandum-disposal-defense-high-level-radioactive-waste-se> (last accessed May 20, 2016).

⁴³ *Id.*

⁴⁴ DOE 2014 Report at 2.

The N-Reactor at the Hanford Site was a “dual-use” nuclear reactor which generated plutonium for the nation’s nuclear weapons program as well as electricity for the Washington Public Power Supply System.⁴⁵ NFS records from that time period show that initial shipments of N-Reactor fuel sent to West Valley for reprocessing in 1966 had very low burn-ups, indicative of spent fuel that was produced through the plutonium-production operation at the N-Reactor.⁴⁶ Records also demonstrate that the first two lots of N-Reactor fuel were received prior to the reactor achieving its dual-use status.⁴⁷

The NFS West Valley plant produced liquid nitrate plutonium and uranium. Approximately 80 percent of the plutonium recovered was shipped directly to Hanford.⁴⁸ As part of a directive from the DOE Secretary in the early 1990s to declassify plutonium information, in 1996, DOE reviewed the plutonium provided to the AEC from West Valley.⁴⁹ DOE’s analysis showed that, of the 1,530 kg of separated plutonium received by the AEC from the West Valley facility, 635 kg originated from fuel or reactors that were AEC-owned and 895 kg came from commercial power-reactor fuel.⁵⁰ Of the 635 kg of AEC-origin plutonium, 534 kg of plutonium came from N-Reactor; 95 kg from the NFS facility in Erwin, TN; and 6 kg from the Bonus

⁴⁵ Gerber, M., *The Plutonium Production Story At The Hanford Site: Processes And Facilities History* (June 1996) (“The Plutonium Production Story”), at 2-10 (indicating that in 1971, N-Reactor was ordered closed due to a diminished national need for defense plutonium production, making clear that defense plutonium production took place at the site in years prior).

⁴⁶ E.R. Johnson Associates Inc., *Review of the Operating History of the Nuclear Fuel Service, Inc. West Valley, New York Irradiated Fuel Processing Plant* (Dec. 26, 1980), Table 4-1 (Draft). The two low burnup lots represent 20% of the N-Reactor reprocessing campaigns at West Valley.

⁴⁷ NFS Fuel Reception and Storage Logbook, p. 32, entries of shift staff Hartwell and Mosher, dated 3-11-1966.

⁴⁸ Plutonium & Uranium Recovery from Spent Fuel Reprocessing by Nuclear Fuel Services at West Valley, New York from 1966 to 1972, U.S. Department of Energy (Feb. 1996), available at <http://pbadupws.nrc.gov/docs/ML1219/ML12194A610.pdf> (last accessed May 2, 2016) (“Plutonium Recovery Report”).

⁴⁹ *Id.*

⁵⁰ *Id.* at 1.

Reactor, an AEC-owned demonstration reactor in Puerto Rico.⁵¹ DOE's 1996 report specifically acknowledges that not all of the recovered plutonium was used in the breeder reactor and zero power reactor programs at Hanford.⁵² In addition, NFS records from the time show that the Pu-240 content of some of the initial shipments of plutonium nitrate to Hanford were low (less than two percent Pu-240), indicative of material that would have been used for weapons production.⁵³

In regard to the uranium recovered at West Valley, approximately 99.8 percent was shipped to the AEC's Fernald Feed Materials Production Center in Ohio.⁵⁴ This facility produced "high purity metals products for the U.S. defense program."⁵⁵ The remaining 0.2 percent of the uranium was shipped to the Oak Ridge Y-12 facility in Tennessee.⁵⁶ The figure below illustrates the origins and destinations of the key materials during the NFS operation.

⁵¹ *Id.* at 13.

⁵² *Id.* at 14 (stating that "[m]ost of the plutonium was used in the breeder reactor and zero power reactor programs.") (emphasis added).

⁵³ Plutonium Recovery Report at 10-12, 15; *see also* NFS shipping records in NYSERDA's possession and available upon request. For background, Pu-239 is the desirable isotope in weapons material along with a low Pu-240 content; Pu-240 is unwanted in nuclear weapons material. The more time that the fuel spends in the reactor, the more Pu-240 that is created in the spent fuel. AEC specifically "burned" fuel in the reactor for a much shorter time when they were looking to make weapons-grade plutonium. Regarding fuel entering West Valley, low burnup fuel is an indication of fuel that was "burned" for a weapons purpose; likewise, for recovered plutonium departing West Valley, a low Pu-240 content is indicative of weapons-grade material.

⁵⁴ *See* Plutonium Recovery Report at 2, indicating that 619.1 metric tons of uranium (MTU) out of 620 MTU was shipped directly to Fernald, and that the remaining 0.9 MTU of Highly Enriched Uranium was shipped to the Oak Ridge Y-12 plant.

⁵⁵ U.S. EPA Region 5 Superfund Fact Sheet, *available at* https://www3.epa.gov/region5/superfund/npl/sas_sites/ohio/OH6890008976.html (last visited May 9, 2016).

⁵⁶ Plutonium Recovery Report at 2.

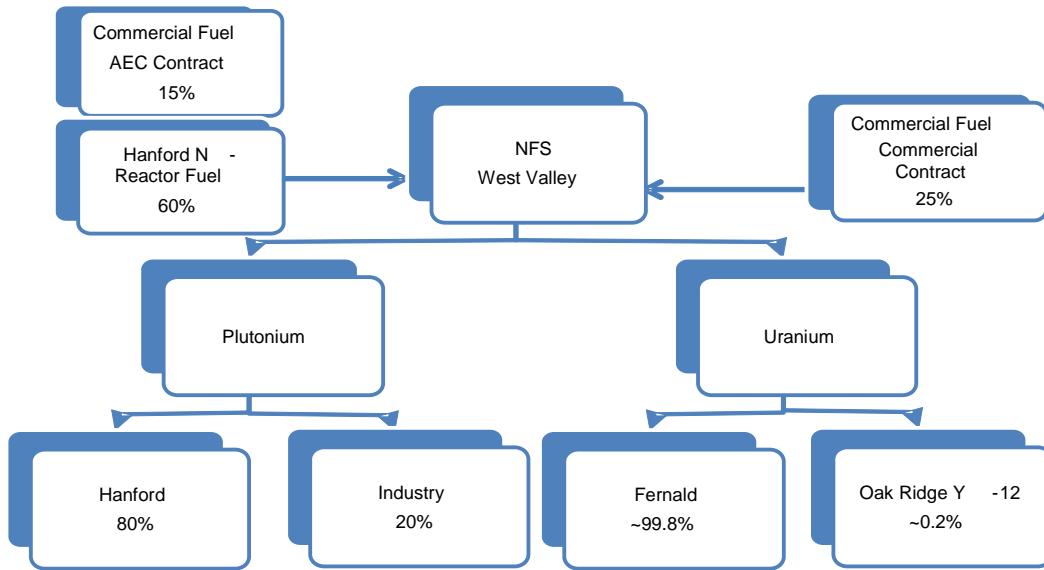


Figure 1. Origin and Destination of the Key Materials Received and Produced During Reprocessing Operations at West Valley.

Source: NYSERDA, based on review of historical NSF records

B. Additional Indicia of Defense Activities at West Valley

Apart from the origin and destination of West Valley HLW, NFS records in NYSERDA's possession include references to additional defense-related work performed on the site. NFS and the West Valley facility served as a prime contractor for at least six U.S. Air Force contracts.⁵⁷

⁵⁷ See National Archives, Military Prime Contract File (July 1, 1965-June 30, 1975); Records of Prime Contracts Awarded by the Military Services and Agencies (July 1, 1965-June 30, 1975), Record Group 330; available at Access to Archival Databases www.archives.gov (last accessed May 9, 2016). None of the six known U.S. Air Force contracts were synopsized, in accordance with Armed Services Procurement Regulation 1-1003.1 Exception 1, which states:

Classified procurements, where the information necessary to be included in the Synopsis would disclose classified information or where the mere disclosure of the Government's interest in the area of the proposed procurement would violate security requirements, shall not be publicized in the Synopsis.⁵⁷

From publicly available records at the National Archives it is possible to discern the potential nature of the contracts, based upon their federal supply class descriptions. Of the six contracts, three involved surveillance, two exploratory development, and the final contract provided consultant services.

These contracts, combined with other publicly available information, makes clear the defense-related nature of activities at West Valley. In particular:

- (1) NFS employees were cleared through AEC channels, allowing for the dissemination of reprocessing information and information pertaining to the N-Reactor fuel elements, and another clearance path allowed NFS personnel to have access to Department of Defense (DOD) classified information at the SECRET level and below;⁵⁸
- (2) NFS was subject to regular inspections by the Defense Supply Agency (DSA), the first of which in available records was conducted on August 19, 1966 and focused on the security measures surrounding DOD classified information housed and generated within the West Valley facility;⁵⁹ and,
- (3) in order to properly secure and maintain control of classified information, NFS established security protocols with the United States Post Office in West Valley, New York, which explicitly states that only three individuals were cleared to receive registered mail from either the AEC or the Air Force.⁶⁰

This information and additional information that NYSERDA is seeking through requests for information to the Air Force and National Archives provide strong indicia that defense-related activities took place at West Valley, and, therefore, it is only reasonable to infer that the materials received and shipped from the facility were related to those defense activities.

⁵⁸ See Standard Practice Procedures Manual, Department of Defense Security Rules, Nuclear Fuel Services, Inc., 8.1-14, Rev. 3 (undated) at 3; *see also* Memorandum, R.B. Kelly, NFS Security Officer, to Employees Authorized to Use AEC Classified Documents (Sept. 25, 1970).

⁵⁹ Letter, Defense Supply Agency to NFS (Aug. 29, 1966) (summarizing DSA findings during an audit conducted on August 19, 1966).

⁶⁰ Letter, Milton A. Ausman to U.S. Post Office, West Valley, New York (Aug. 20, 1970).

VII. West Valley HLW Is Well-Suited for a Defense Repository

In addition to the legal and factual support for the disposal of the West Valley HLW in a defense waste repository, the waste is in a form that is well-suited for such disposal and could be shipped whenever the repository is ready.

The 2014 DOE report summarizes the inventory of both commercial and DOE-managed radioactive wastes requiring geologic disposal, and organizes that inventory into broadly defined waste groups with similar disposal characteristics. The West Valley HLW appears to be perfectly suited for disposal in a defense repository, but DOE's classification of the West Valley HLW as commercial waste precluded DOE from including it in the waste groups identified for the repository.⁶¹ In particular, the report noted that the lower thermal load of some wastes potentially simplifies aspects of repository design and operations, and was an important factor in identifying wastes that are best suited for a possible defense repository.⁶² NYSERDA notes that the West Valley HLW is very cool; in fact, the thermal output from the West Valley canisters is only about 155 watts per canister, making it, upon information and belief, some of the “coolest” HLW in the nation.

The West Valley HLW meets DOE's HLW repository waste acceptance criteria for quality, waste form, waste package, surface contamination and all other requirements; and is ready for disposal today. Considering the physical and thermal properties and other important factors considered by DOE in identifying wastes suitable for disposal in a defense repository, the West Valley HLW is perfectly compatible. Moreover, it is clear that – if built – the benefits to DOE would accrue at West Valley if the West Valley HLW were deemed defense waste: DOE

⁶¹ 2014 DOE Report v, 6.

⁶² *Id.* at 5.

cannot complete the WVDPA until the HLW canisters are removed, and the removal of the canisters before the estimated completion of an NWPA repository in 2048 would advance DOE's cleanup mission at the site and save the cost of continued maintenance of the canisters in storage.

VIII. Conclusion

West Valley is the only site in the nation where a state is responsible for the cost of disposing HLW. Nevertheless, over the last 36 years, DOE's and the State's joint history at West Valley has been one of successfully overcoming technical challenges in order to continue the progress toward the safe and successful completion of the WVDP. The factors discussed in this comment, and which continue to come into view as NYSERDA gathers additional information, make ever-clearer that the HLW currently stored at West Valley is in significant part "from atomic energy defense activities" and is appropriate for disposal at a defense waste-only repository. As DOE moves forward with its Consent-Based Siting approach, which is meant to find solutions to many of the nation's most difficult radioactive waste disposal issues, NYSERDA respectfully suggests that DOE recognize West Valley HLW as "from atomic energy defense activities" pursuant to the NWPA and include it in the HLW slated for a defense-only repository.

Consent Based Siting

From: Diane Turco
Sent: Tuesday, June 14, 2016 4:16 AM
To: Consent Based Siting
Subject: ?due date for comments on Consent Based Siting of Nuclear Waste?

Hi-Two due dates for public comment are online. One is 6/15 <https://www.federalregister.gov/articles/2015/12/23/2015-32346/invitation-for-public-comment-to-inform-the-design-of-a-consent-based-siting-process-for-nuclear> the other is July 31<http://www.energy.gov/ne/consent-based-siting>. Which is correct? Thanks, Diane

Consent Based Siting

From: Sarah Doenmez
Sent: Sunday, June 12, 2016 10:54 AM
To: Consent Based Siting
Subject: Response to IPC

I do NOT consent to the creation of nuclear waste facilities in my state or area. I also consider it irresponsible of the DOE to seek to create facilities in this manner. If there was a safe way to store waste, there would be no need for this endeavor; given that there is no safe way to store waste, creating the illusion that there is and encouraging its further spread around our nation is drastically misguided.

Sincerely,
Sarah Doenmez

--
Sarah Doenmez
Academic Dean
Dublin School

www.dublinschool.org/academics-blog

“Live as if you were to die tomorrow. Learn as if you were to live forever.”

~Mahatma Gandhi

Consent Based Siting

From: Patricia Orlinski
Sent: Saturday, June 11, 2016 3:37 PM
To: Consent Based Siting
Subject: Response to IPC

These are the reasons I oppose storage pools:

RISKS OF HIGH-LEVEL RADIOACTIVE WASTE STORAGE POOLS, AND NEED FOR HARDENED ON SITE STORAGE (HOSS):

As just reconfirmed by the National Academies of Science, and Princeton U. researchers Von Hippel and

Schoeppner, pools are at risk of fires that could unleash catastrophic amounts of hazardous Cesium 137 into the environment over a wide region. Since 2002, a coalition of hundreds of environmental and public interest groups, representing all 50 states, has called for expedited transfer of high level radioactive waste from vulnerable pools into hardened dry casks, designed and built to last not decades but centuries, without leaking, safeguarded against accidents and natural disasters, and secured against attack.

NUCLEAR POWER AND HIGH LEVEL RADIOACTIVE WASTE GENERATION:

The mountain of radioactive waste in the U.S. has grown 70 years high, and we still don't know what to do with the first cupful. Radioactive waste may well prove to be a "trans-solutional" problem, one created by humans, but beyond our ability to solve. The only safe, sound solution for radioactive waste is to not make it in the first place. Reactors should be permanently shut down, to stop the generation of high level radioactive waste for which we have no good solution.

Thank you for your attention.

Patricia S. Orlinski Always

Consent Based Siting

From: Tom
Sent: Saturday, June 11, 2016 9:51 AM
To: Consent Based Siting
Subject: RESPONSE TO IPC, attention Mr. Andrew Griffith

The recent public forum on Consent-Based Siting in Boston on June 3 is too little and much too late. I live on Cape Cod, joined by two bridges to the mainland, which cannot keep up with the increased numbers of residents and overwhelmed constantly by hundreds of thousands of summer travelers. We have NO EVACUATION PLAN though we are within 28 miles of an NRC designated one step from closure due to unsafe practices at Pilgrim Nuclear Power Station. PNPS has been deemed economically unviable money maker which will close in 2019. Although promises by Entergy Corporation funded MEMA to provide an evacuation plan, it is impossible. Trust is almost completely gone relative to trust in the NRC, state agencies such as MEMA and most Federal and State legislators. The forum by DOE was just a dog and pony show to be able to say that there is public input in decision making process. The populace feels powerless because decisions are always made by forces involving the almighty dollar. Decisions, similar to those of the NRC and DOE, whether real or perceived, are viewed as promotion of the nuclear industry. Decades of objections and votes made by citizens are demonstrations of the mindset of the public. Lack of change is proof of this. Trust was a major topic at the Forum but building trust at this point is not possible. We know our voices, for the most part, are ignored. A benefit to the public over the past several decades would have been the development of truly clean, renewable energy sources, timely retirement of old reactors and safe disposal methodologies. However, subsidies (such as the Price Anderson Act) provided to the nuclear energy industry successfully crushed incentives for these other energy sources to flourish and real solutions to emerge.

DOE stated at the Consent-Based Siting meeting in Boston that nuclear waste has been produced for our benefit! What a ludicrous statement from an agency supposedly looking out for the citizenry and our precious resources. Pilgrim has already destroyed aquatic marine life in Cape Cod Bay by using **500 million gallons** of water daily to keep the reactor cool. And there are other serious health and safety problems such as water thermal and toxic pollution. It has accumulated 44 years of highly toxic nuclear waste and as a matter of logical fact, Pilgrim's nuclear power generation should cease until the problem of nuclear waste existence and storage management is solved. A main goal should be solving the problem of the existence of nuclear waste, not create a storage solution that will be used as an excuse to generate more waste. Only when solutions arise for dealing with the existence of nuclear waste should investment in continuing nuclear power production resume with any justification.

PNPS will remain a waste dump. If ever sites are designated.....more than likely to areas in need of economic help, more than likely poor areas, more than likely on lands of indigenous peoples (though recent court wins show some are fighting back).....they must be accessed by transportation on public roads and are fraught with the inherent risk associated with transporting nuclear waste. At the very least, interim storage sites should be regional to reduce the length of transport and should have feasible transport routes. For Pilgrim, DOE had planned to ship nuclear waste to Yucca Mountain via 24 barge shipments across Cape Cod Bay, Massachusetts Bay, and Boston Harbor into the City of Boston where it would then be loaded onto rail cars heading to Nevada. Hopefully this plan will not resurface in the thinking of DOE.

I feel I am shouting into the wind. But, I assume I should be happy because I've been given the opportunity to do that. Regardless, I am truly concerned about what my children, my grandchildren are going to be left with. My husband has said repeatedly, after I go off to public forums, demonstrate at Pilgrim, am arrested multiple times because I believe in civil disobedience, write letters,that there'll only be government action if there's another Fukushima. It would be a catastrophe, one that would occur in the U.S., for there to be an action that will make us safer.

janet azarovitz

member of Pilgrim Legislative Advisory Coalition and Cape Downwinders Cooperative

Consent Based Siting

From: Marsha Jarvis
Sent: Friday, June 10, 2016 2:11 PM
To: Consent Based Siting
Subject: No Nuclear

To Whom It may Concern,

The [National Academy of Sciences, and Princeton researchers](#) reported that a U.S. pool fire could unleash a radioactive catastrophe dwarfing Fukushima, and that such a fire was very narrowly averted at Fukushima itself, by sheer luck. No nuclear, only clean energy!!!

Best,
Marsha ♥

"As one becomes more Soulful, the Angel that you are Guides you through your life as God's intermediary--an Angel.

Miracles follow and limitations of God's Will are no longer."

~ His Holiness Buddha Maitreya

<http://www.shambhalahealingtools.com/>

Consent Based Siting

From: Stephen Gliva
Sent: Friday, June 10, 2016 1:38 PM
To: Consent Based Siting
Subject: Response to IPC" [Invitation for Public Comment]

We do not consent to DOE rushing into parking lot dumps (so-called “centralized” or “consolidated interim storage,” in order to expedite the transfer of title and liability from the nuclear utilities that profited from the generation of high-level radioactive waste, onto the backs of taxpayers.

We do not consent to “centralized interim storage” facilities becoming ***de facto* permanent surface storage parking lot dumps** for high-level radioactive waste.

We do not consent to “games” of radioactive Russian roulette, radioactive hot potato, and radioactive musical chairs being played, when it comes to high-risk, high-level radioactive waste shipments on the roads, rails, and waterways through most states.

Consent Based Siting

From: Karen Vale
Sent: Friday, June 10, 2016 1:14 PM
To: Consent Based Siting
Subject: Response to IPC
Attachments: JRWA_DOEConsentBasedSitingComments_2016Jun10_FINAL.pdf

Please accept the attached comments from Jones River Watershed Association concerning DOE's Consent Based Siting Process IPC.

Thank you,
Karen Vale

--
*Karen Vale-Vasilev
Program Manager
Jones River Watershed Association*

Web: www.jonesriver.org
Facebook: www.facebook.com/JonesRiverLanding
Flickr: www.flickr.com/photos/jonesriver/sets



• 55 LANDING ROAD, KINGSTON, MASSACHUSETTS 02364 • WWW.JONESRIVER.ORG

June 10, 2016

Mr. Andrew Griffith
Associate Deputy Assistant Secretary for Fuel Cycle Technologies
U.S. Department of Energy
Office of Nuclear Energy
1000 Independence Ave SW
Washington, DC 20585

RE: DOE's Consent Based Siting Process; Response to IPC (Invitation for Public Comment)

Dear Mr. Griffith,

Jones River Watershed Association (JRWA; see end of letter for point of contact, address, phone number and email as requested by DOE) offers the following comments concerning the above referenced IPC.

JRWA has been working since 2006 on matters related to Entergy's Pilgrim Nuclear Power Station, located on Cape Cod Bay in Plymouth, Massachusetts. Our mission is to protect, enhance, and restore the quality of the natural resources in Southeastern Mass., in particular the Jones River and Cape Cod Bay. Forty-three years of nuclear waste is currently being stored at Pilgrim either in an overcrowded wet pool or in storage casks located precariously close to the shoreline (i.e., in reach of rising tides, coastal storms, and saltwater degradation). This default situation risks contamination of the regional environment and is a primary concern. Pilgrim is shutting down in 2019 and additional casks are planned for this coastal location. While we work to see that this waste is stored in a more secure location within the site, we believe no near-by location is safe. We are therefore interested in efforts related to the eventual transport of Pilgrim's waste offsite, and the consent-based siting process for nuclear waste storage and disposal facilities across the country. It is in this context that JRWA offers the following comments.

Our comments primarily address question #5 in the IPC (other important issues to be considered by DOE).

Solve the Problem, Don't Bury It

According to the Administration's 2013 Strategy for the Management and Disposal of Used Nuclear Fuel and High-level Radioactive Waste, making progress on waste disposal will support the sustainment of nuclear as an energy source in the U.S. JRWA strongly believes that nuclear power generation should cease until the problem of nuclear waste existence and storage management is solved. Merely "burying" the waste does not solve the problem. The main goal should be solving the problem of the existence of nuclear waste, not create a storage solution that will be used as an excuse to generate more waste.

Substantial time, money, and intellectual resources should be focused on developing and bolstering nuclear waste transmutation and other innovative technologies that seek to recycle and reuse waste, reduce radioactivity, and minimize waste volume. Only when solutions arise for dealing with the existence of nuclear waste should investment in continuing nuclear power production resume with any justification.

Production of Waste Has Not Been for Our Benefit

DOE stated at a recent Consent-Based Siting meeting in Boston that nuclear waste has been produced for our benefit. JRWA disagrees and argues that nuclear waste has been produced primarily for the benefit of those who profit from the industry. More than a half-century of objections by the general public demonstrate this. A benefit to the public over the past several decades would have been the development of truly clean, renewable energy sources, timely retirement of old reactors and safe disposal methodologies. However, subsidies provided to the nuclear energy industry successfully crushed incentives for these other energy sources to flourish and real solutions to emerge.

Nuclear is Not Carbon Free

If DOE wants to build trust among the public, then ending the greenwashing of nuclear power should be a priority. Nuclear power is not carbon free -- no form of energy production is. Considering the life-cycle of nuclear power production, there are emissions associated with uranium mining/processing, construction of plants and decommissioning processes, and general daily plant operations. While nuclear can be considered, at best, a low-carbon form of energy production, there are other serious health and safety problems such as water pollution, massive water usage and destruction of aquatic life, and especially the production of eons-lasting, highly toxic nuclear waste that currently has no safe disposal plan or repository despite many decades of planning and effort. Our nuclear policy is self-defeating.

Options Other than Burial

DOE has alluded that developing a deep geological repository is the only safe and fallback option to handle nuclear wastes. However, the potential for bioremediation of nuclear waste by, for example, *Kineococcus radiotolerans*, nuclear waste transmutation, and other innovative technologies should be explored. The government should be dedicating substantial resources into research and intellectual development to truly solve the problem. With the proper resources and allowing science – rather than politics – lead the charge, we are optimistic solutions can be achieved.

Building Trust May Not Be Possible; A New Entity is Needed

Similar to the Nuclear Regulatory Commission, DOE – whether real or perceived – is viewed as a promoter of nuclear industry. The process for developing plans for storing nuclear waste properly and safely should be led by a new, independent entity. This entity should be well-funded, free-thinking, and intellectually-based to allow for optimal progress. It should be guided by strict ethical behavior and free from political animus.

The National Environmental Policy Act

For communities to provide consent, they must be knowledgeable of potential environmental impacts. DOE should ensure siting of nuclear waste (including both storage and transportation) is a thorough process that gives proper consideration of the environmental impacts by complying with NEPA.

Communities' Network

There is need for enhanced communication between all communities that host commercial nuclear reactors (and future storage site host communities) as well as with DOE host communities via a Community Network or Advisory Group. DOE should provide facilitation and guidance to support enhanced communication among these communities. Those participating in such a network should not be advocates for the nuclear industry and should be authorized to participate on behalf of a community (i.e., members elected by fellow community members). There also needs to be longevity built into the process since it is such a long-term issue. Members should have direct access to any and all government agencies dealing with the issues of nuclear waste storage, such as DOE, NRC, etc. Funding is needed for local communities to develop these networks, so that they are better equipped to deal with the issues and develop timely solutions in the face of consistent failure of government and industry to do so.

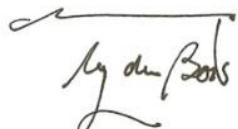
Regional Sites & Infrastructure Improvements

At the very least, interim storage sites should be regional to reduce the length of transportation and the inherent risk associated with transporting nuclear waste. Regional interim storage sites should also have feasible transport routes. For Pilgrim, DOE had planned to ship nuclear waste to Yucca Mountain via 24 barge shipments across Cape Cod Bay, Massachusetts Bay, and Boston Harbor into the City of Boston, where it would then be loaded onto rail cars heading to Nevada.¹ This is not a realistic transport solution. Perhaps regional storage locations would offer more practicable options for transport, avoid shuttling the entire burden elsewhere, and encourage society to really deal with its energy choices.

Once regional interim sites and feasible transportation routes are identified, DOE should be prepared to make infrastructure improvements throughout all routes/states leading to those sites (e.g., rail and roads). In addition to increasing safety, this would provide some incentive for those states and communities through which nuclear waste would be transported. Once these steps are complete, and innovative technologies are being vigorously pursued, then a centralized repository may be more feasible.

Thank you for considering our comments.

Sincerely,



Pine duBois
Executive Director
Jones River Watershed Association
55 Landing Road, Kingston, MA 02364

¹ U.S. DOE. 2002. FEIS for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada. (See FEIS Volume II, Appendix J, Transportation).

Consent Based Siting

From: Mana Iluna
Sent: Friday, June 10, 2016 1:06 PM
To: Consent Based Siting
Subject: Response to IPC

I Do Not Consent! Talking Points for Preparing Public Comments re: DOE's "Consent-Based Siting" of Radioactive Waste Dumps

***Use the following as a starting point for preparing your own public comments
by DOE's July 31 deadline (see how at bottom)***

THE RUSH JOB TO *DE FACTO* PERMANENT PARKING LOT DUMPS, FOR ALL THE WRONG REASONS:

We do not consent to DOE rushing into *de facto* permanent parking lot dumps (so-called “centralized” or “consolidated interim storage”), in order to expedite the transfer of title and liability from the nuclear utilities that profited from the generation of high-level radioactive waste, onto the backs of taxpayers.

FLOATING FUKUSHIMAS ON SURFACE WATERS: We do not consent to radioactive waste barge shipments on the lakes and rivers of this country, the fresh drinking water supply for countless millions, nor on the seacoasts. In addition to a disastrous radioactive release if the shipping container is breached, infiltrating water could spark a nuclear chain reaction, if a critical mass forms, due to the fissile U-235 and Pu-239 still present in the waste.

MOBILE CHERNOBYLS/DIRTY BOMBS ON WHEELS: We do not consent to high-level radioactive waste truck and train shipments through the heart of major population centers; through the agricultural heartland; on, over, or alongside the drinking water supplies of our nation. Whether due to high-speed crashes, heavy crushing loads, high-temperature/long duration fires, falls from a great height, underwater submersions, collapsing transport infrastructure, or intentional attack with powerful or sophisticated explosives, such as anti-tank missiles or shaped charges, high-level radioactive waste shipments, if breached, could unleash catastrophic amounts of hazardous radioactivity into the environment.

ENVIRONMENTAL INJUSTICE/RADIOACTIVE RACISM: We do not consent to the targeting, yet again, of low-income, Native American, and other communities of color, with high-level radioactive waste parking lot dumps. It is most ironic that President Obama's Blue Ribbon Commission on America's Nuclear Future, and his DOE, have yet again targeted Native Americans. Obama honored Sauk and Fox environmental activist Grace Thorpe for defending her reservation in Oklahoma against a parking lot dump, and then assisting allies at dozens of other reservations being targeted by DOE's Nuclear Waste Negotiator. Obama praised Thorpe as a “Woman Taking the Lead to Save Our Planet,” alongside the likes of Rachel Carson of *Silent Spring* fame, in his March 2009 Women's History Month proclamation. Similarly, Yucca Mountain, Nevada is Western Shoshone Indian land, as the U.S. government acknowledged by signing a treaty. In addition, Yucca is not scientifically suitable. It is an active earthquake zone, a volcanic zone, and water-saturated underground. If waste is ever buried there, it will

leak massively into the environment. And the State of Nevada has never consented to becoming the country's high-level radioactive waste dump.

SITES CURRENTLY AT THE VERY TOP OF THE TARGET LIST FOR *DE FACTO* PERMANENT PARKING

LOT DUMPS: We do not consent to the targeting of nuclear power plants, radioactive waste dumps, or DOE sites, already heavily contaminated with radioactivity and burdened with high-level radioactive waste, to become parking lot dumps for the importation of other sites' or reactors' wastes. DOE, NRC, and industry's top targets include Waste Control Specialists in Andrews County, TX; Eddy-Lea Counties, NM, near DOE's Waste Isolation Pilot Plant; DOE's Savannah River Site, SC; Dresden nuclear power plant in Morris, IL; the list goes on. (continued over)

RISKS OF HIGH-LEVEL RADIOACTIVE WASTE STORAGE POOLS, AND NEED FOR HARDEDENED ON-SITE STORAGE (HOSS):

As just re-confirmed by the National Academies of Science, and Princeton U. researchers Von Hippel and Schoeppner, pools are at risk of fires that could unleash catastrophic amounts of hazardous Cesium-137 into the environment over a wide region. Since 2002, a coalition of hundreds of environmental and public interest groups, representing all 50 states, has called for expedited transfer of high-level radioactive waste from vulnerable pools into hardened dry casks, designed and built to last not decades but centuries, without leaking, safeguarded against accidents and natural disasters, and secured against attack.

NUCLEAR POWER AND HIGH-LEVEL RADIOACTIVE WASTE GENERATION: The mountain of radioactive waste in the U.S. has grown 70 years high, and we still don't know what to do with the first cupful. Radioactive waste may well prove to be a "trans-solutional" problem, one created by humans, but beyond our ability to solve. The only safe, sound solution for radioactive waste is to not make it in the first place. Reactors should be permanently shut down, to stop the generation of high-level radioactive waste for which we have no good solution.

Mana

Consent Based Siting

From: Doris Leicher
Sent: Friday, June 10, 2016 9:55 AM
To: Consent Based Siting
Subject: Response to IPC

Please be advised that I oppose the methodology outlined in the above approach. In general, the US has had a history of underestimating perils to natural system and public health, and especially concerning the dangers of nuclear waste. If it turns out that the risks have been under-estimated, it will most likely be impossible to do anything significant about the situation, so we have to be extra cautious in advance, and use the best and most risk-conservative science available to protect public health. Thank you for the opportunity to express my opinion. Dorothea Leicher

Consent Based Siting

From: Don Goldhamer
Sent: Friday, June 10, 2016 3:36 AM
To: Consent Based Siting
Subject: opposition to consolidated for radioactive waste

I am deeply concerned about, and opposed to, proposals to create consolidated interim storage for radioactive waste.

Overwhelming scientific evidence now exists for the lack of safe methods to store or deactivate radioactive waste.

Plans to do so place the risk and financial burden on the public and those citizens least able to defend their communities.

Most proposed storage methods ignore their vulnerability -- degrading effects of radioactivity on materials and sites.

Continued production of radioactive waste is against all reason.

Sincerely,
Donald Goldhamer

Consent Based Siting

From:
Sent: Thursday, June 09, 2016 6:40 PM
To: Consent Based Siting
Subject: Comments on

the EPA decision to allow higher limits of radioactivity during a disaster: no, no, no way! This is totally unacceptable. Who is the EPA bowing to? Not to the common folk at all! Only to those with the money to sway these decisions!

Frances FrainAguirre
Denver, Colorado

Consent Based Siting

From: Baker-Smith
Sent: Thursday, June 09, 2016 6:02 PM
To: Consent Based Siting
Subject: Response to IPC

"We do NOT CONSENT!" We are writing to oppose the Yucca dump, parking lot dumps, and Mobile Chernobyls

Please accept our comment in opposition to high-risk, high-level radioactive waste shipments (by road, rail, and/or waterway) to Yucca Mountain, Nevada, as well as to "centralized interim storage sites" (*de facto* permanent parking lot dumps).

Thank you for your attention.

Gerritt and Elizabeth Baker-Smith

Consent Based Siting

From: linda spanski
Sent: Thursday, June 09, 2016 4:00 PM
To: Consent Based Siting
Subject: Response to IPC

I do not consent to high-risk, high-level radioactive waste shipments (by road, rail, and/or waterway) to Yucca Mountain, Nevada, as well as to "centralized interim storage sites" for the following reasons:

THE RUSH JOB TO DE FACTO PERMANENT PARKING LOT DUMPS, FOR ALL THE WRONG REASONS: We do not consent to DOE rushing into de facto permanent parking lot dumps (so-called "centralized" or "consolidated interim storage"), in order to expedite the transfer of title and liability from the nuclear utilities that profited from the generation of high-level radioactive waste, onto the backs of taxpayers.

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Linda Spanski
Oceanside, CA

Consent Based Siting

From: Stephan Hewitt
Sent: Thursday, June 09, 2016 3:39 PM
To: Consent Based Siting
Subject: Response to IPC

To Whom It May Concern,

We do not consent to DOE rushing into *de facto* permanent parking lot dumps (so-called “centralized” or “consolidated interim storage”), in order to expedite the transfer of title and liability from the nuclear utilities that profited from the generation of high-level radioactive waste, onto the backs of taxpayers.

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The mountain of radioactive waste in the U.S. has grown 70 years high, and we still don't know what to do with the first cupful. Radioactive waste may well prove to be a "trans-solutional" problem, one created by humans, but beyond our ability to solve. The only safe, sound solution for radioactive waste is to not make it in the first place. Reactors should be permanently shut down, to stop the generation of high-level radioactive waste for which we have no good solution.

Sincerely yours,

Stephan D. Hewitt
Santa Monica, CA
June 9, 2016

Consent Based Siting

From: Carolyn Berndt
Sent: Wednesday, June 08, 2016 12:19 PM
To: Consent Based Siting
Cc: Carrillo, Francisco
Subject: Response to IPC: Nuclear Waste Storage and Disposal Facilities
Attachments: DOE nuclear siting comments 06 08 16.pdf

Dear Mr. Kotek,

On behalf of the National League of Cities, attached are comments in response to the *Invitation for Public Comment To Inform the Design of a Consent-Based Siting Process for Nuclear Waste Storage and Disposal Facilities*. Please let me know if you have any questions.

Best,
Carolyn

Carolyn S. Berndt
Program Director for Sustainability
Federal Advocacy
National League of Cities

www.nlc.org



NLC's Congress of Cities conference is now called the City Summit.

Join us for the City Summit this November in Pittsburgh!

<http://citysummit.nlc.org>

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Melodee Colbert-Kean
Councilmember
Joplin, Missouri

First Vice President

Matt Zone
Councilmember
Cleveland, Ohio

Second Vice President

Mark Stodola
Mayor
Little Rock, Arkansas

Past President

Christopher B. Coleman
Mayor
Saint Paul, Minnesota

Chief Executive Officer/

Executive Director

Clarence E. Anthony

Deputy Executive Director

Antoinette A. Samuel

June 8, 2016

Mr. John Kotek
Acting Assistant Secretary
Office of Nuclear Energy
U.S. Department of Energy
1000 Independence Avenue SW
Washington, DC 20585

RE: Response to *Invitation for Public Comment To Inform the Design of a Consent-Based Siting Process for Nuclear Waste Storage and Disposal Facilities*

Dear Mr. Kotek,

On behalf of the 19,000 cities and towns represented by the National League of Cities (NLC), we appreciate the opportunity to provide comments on the design of a consent-based process for nuclear waste storage and disposal facilities. We are pleased to see the U.S. Department of Energy's (DOE) commitment to an inclusive approach that acknowledges and values the voices of local leaders.

NLC supports the construction and operation of a safe, permanent geologic storage and disposal facility for spent nuclear fuel and high-level radioactive waste. This nuclear material is currently stored at nuclear reactor and DOE sites across the country, putting our citizens, communities and the environment at risk. Although this solution was supposed to be temporary, the federal government has failed to establish a permanent solution.

Because of the tremendous impact that the transport, storage and disposal of this nuclear material has on a community and a region, local governments must have direct participation in the process of establishing an integrated waste management system. In order to ensure that this waste remains outside of populated areas, we support assistance from the Nuclear Waste Trust Fund to help local governments conduct technical studies of potential repository sites and to provide technical comments on federal siting-related documents.

As cities and towns seek permanent solutions for nuclear waste storage and disposal, we encourage Congress to authorize research for additional management options. Adopting legislation that establishes a spent nuclear fuel management program will maintain safe and transparent management facilities.



In closing, thank you for working to collaborate with local governments in the planning of an integrated nuclear waste management system and your commitment to finding a solution that protects our nation's citizens, communities, and the environment. We look forward to continuing work with you on ways to ensure a consent-based process.

Sincerely,



Clarence E. Anthony
CEO and Executive Director

Consent Based Siting

From: Ross Conrad
Sent: Tuesday, June 07, 2016 11:51 AM
To: Consent Based Siting
Subject: Response to IPC

In your effort to establish a consent based nuclear waste storage program please consider the following comments.

The current challenge when trying to store nuclear waste is the many thousands of years that the waste will be dangerously radioactive. In addition, when spent nuclear waste is concentrated in one area, the large amount of radioactive material in one place creates extreme heat and presents additional factors (such as being a target for terrorists) that make the storage of large quantities of waste in a single location extremely difficult, especially given the propensity for unpredictable events to occur (e.g. Fukushima).

I propose that the Department of Energy consider how nature deals with nuclear material. There is a huge amount of naturally occurring radioactive material on Earth. This material does not present the potential for large catastrophic accidents because it tends to be buried deep in the earth. It also tends to be dispersed over extremely wide areas rather than all concentrated in one place. Thus, it is logical to assume that very small amounts of radioactive waste that is generated by the U.S. nuclear industry could similarly be safely buried deep in the earth (e.g. 40-50 feet) in places unlikely to experience severe erosion issues, and that these small deposits could be spread out by at least a few acres from each other simulating how nature stores much of the vast quantities of naturally occurring radioactive material that exists on our planet.

While this is unlikely to be the least expensive option due to the cost of digging hundreds of thousands, if not millions of deep holes, along with material handling, transportation, and compensation for consenting landowners, by all accounts it does appear to be the absolutely safest way to dispose of such waste in a way that public safety can be reasonably expected to last for thousands of years if not more. All the other options that are under consideration have long-term safety issues that make them highly questionable and risky. I would suggest that cost savings is not a good reason to put the public's safety in jeopardy in the long-term.

Thank you for your time and consideration of this matter.

Bees be with you,
Ross Conrad
Dancing Bee Gardens

www.dancingbeegardens.com

"OPTIMISM IS A POLITICAL ACT. Those who benefit from the status quo are perfectly happy for us to think nothing is going to get any better. In fact, these days, cynicism is obedience." - Alex Steffen, *The Bright Green City*

"We don't have to engage in grand, heroic actions to participate in the process of change. Small acts,

when multiplied by millions of people, can transform the world." – Howard Zinn

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THIS MEANS YOU--NSA!

Consent Based Siting

From: Leon Neihouse
Sent: Tuesday, June 07, 2016 10:17 AM
To: Consent Based Siting
Cc: ; 'mark campagna'; ; 'Hall, Thomas D'

Subject: International Nuclear VillagesT
Attachments: 06-06-16-INV-COO.docx

Dr. Ernest Moniz
Secretary of Energy
Attention: John F. Kotek
Acting Assistant Secretary for Nuclear Energy
U.S. Department of Energy
1000 Independence Ave., SW
Washington, DC 20585

Dear Dr. Moniz:

I want to first thank you for the May 17, 2016 response of Mr. Kotek to my letter to you of 20 April 2016.

I have visited your Consent based siting web site, read your booklet entitled Integrated Waste Management Consent Based Siting 2016, and am following your progress in making eight presentations to develop an adaptive consent based approach to finding one or more suitable consolidated interim storage (CIS) locations.

To digress into a related initiative, I have expanded Dirigo Energy International, introduced in my 20 April letter, into a franchise business with the prospective name of International Nuclear Villages (INV) - introduced in the attached Concept of Operations.

The INV intent is to invite the participation of all national governments in developing a prototype business on USA owned Navassa Island in the Caribbean.

This island would be set up for all governments to dispose of their low level radioactive wastes and other hazardous material.

Those nations who now have or once had nuclear power in their energy supply portfolio could use this location for the interim storage of some or all of their spent nuclear fuel (SNF), high level radioactive wastes, and Greater than Class C low level radioactive wastes.

The SNF could then be recycled there for use in Generation IV nuclear power plants and the residue, plus other radioactive wastes greater than Class C, disposed of in a geologic repository approved by all concerned.

Nations in the Caribbean (Haiti, Jamaica, Cuba, etc) could use underwater power cables to receive electrical power generated on the island by Generation IV nuclear power plants (GE-Hitachi's PRISM and/or TerraPower's Traveling Wave Reactor, for examples).

The five person start-up team of Consultants and Advisors noted in the attachment has a collective total of over 70 years of United States military service; two are living in Maine and one each in New Jersey, Illinois, and North Carolina.

We are in the process of starting up the prototype International Nuclear Village™ One on Navassa Island by working on the following steps:

1. locating SEC qualified sophisticated investors to provide startup capital
2. asking the current Administration to lease Navassa Island to International Nuclear Villages™
3. requesting the Department of State to help resolve ownership issues with Haiti
4. going through the United States Ambassador to introduce International Nuclear Villages™ to all UN members, and
5. applying for World Bank loans to supplement initial private funding.

Our intent is to volunteer Navassa Island for a USA proof of concept of CIS option for some or all of the SNF presently stored at shutdown nuclear power plants in the United States.

The next stage in our startup plan is to research two back-up locations: (1) San Miguel Island (a Channel Island off the coast of California) and (2) a Reservation of the Passamaquoddy Indian Nation in Maine.

We have two questions at this time: (1) are there any specific methods and procedures that we must follow to, as it were, "throw our hat in the ring" for consideration in the CIS process and (2) is the Passamaquoddy Nation one of the Indian Tribes, mentioned in your booklet, currently under consideration for a CIS site?

Thank you for any attention you can give to these requests.

Very Respectfully,

Leon Neihouse
Consultant
Bath Office
International Nuclear Villages™

International Nuclear Villages™
Concept of Operations
06-06-16

A September 1990 Scientific American article entitled “**Energy from Nuclear Power**” written by Wolf Hafele stated that the atom contains one trillion times the energy density of the regenerative sources of the sun and wind and one million times that of the fossil sources of coal, oil, and natural gas

International Nuclear Villages™ (INV) will take advantage of this fact of nature and attempt to develop nuclear power in a manner that can be utilized by all nations.

INV will start by surrounding a location with a wall of dimensions to be determined. So as to keep the wall intact for several thousand years, the building materials will be at least as strong as those in the Great Pyramid. Classes A, B, and C low level radioactive wastes as well as other hazardous materials will be disposed of in the wall volume.

The area on the inside of the wall will be used for various nuclear functions that might include, but not be limited to:

1. testing and/or normal operation of nuclear power plants
2. storage of Greater than Class C low level radioactive wastes and high level radioactive wastes until they are sent to a permanent disposal site approved by all concerned, and
3. storage of spent nuclear fuel (SNF) until recycled on site or sent elsewhere for recycling and/or disposal. (The size of the storage facility will be patterned after the 120 acre site designed by Private Fuel Storage on the Reservation of the Skull Valley Band of Goshute Indians, located approximately 45 miles southwest of Salt Lake City. The United States Nuclear Regulatory Commission issued a license for storage of 40,000 metric tons of SNF but non-technical factors prevented startup. The design life of SNF storage casks can extend into the 100 year range, to give sufficient time to not only fully explore the recycling of SNF for use in Generation IV nuclear power plants but also thoroughly compare and contrast permanent disposal options including, but not limited to a geologic repository, sub sea bed burial, and subduction into the planetary mantle.)

As one of many possible locations, the prototype for these nuclear operations can be built at an uninhabited location such as the approximately two square mile USA owned Navassa Island in the Caribbean.

INV proposes to lease the island from the USA under a provision that Navassa Island be given the same status as the land on which The UN building in New York City sits (all nations will be given access to Navassa Island) and then start a business there named International Nuclear Village™ One.

Six hundred plus megawatts of electricity generated by one or more nuclear power plants on International Nuclear Village™ One will be transmitted by one or more underwater power cables to each of many locations that might include, but not be limited to Haiti, Jamaica, and Cuba.

This prototype can be replicated at other places with subsequent developments given sequentially increasing numbers beyond International Nuclear Village™ One.

Possibilities include not only land based locations that have virtually unanimous support for nuclear operations from those living nearby but also San Miguel Island (a Channel Island off the coast of California) and other uninhabited islands close enough to populated locations such that power transmission using underwater cables can be cost effective.

This replication could continue to the extent required to generate electricity for as long as it is more cost effective than the competition.

The following perpetual and irrevocable requirements will prevail:

1. INV will operate each International Nuclear Village™ as a franchise
2. member nations of the United Nations can avail themselves of the electrical generation, waste disposal, and SNF storage/recycling services provided at one or more International Nuclear Villages™, and
3. the United Nations will view any terrorist attack on any International Nuclear Village™ as an attack on all nations using the nuclear services provided there.

Normally, the contract will be FOB an International Nuclear Village™ but an option will be provided for pickup at the nation owning the SNF, which will require transportation by:

- a ship/barge for water transfer of SNF (SNF was shipped from Japan to England in this manner until Japan developed a reprocessing ability and the United States shipped SNF by barge from the shutdown Shoreham plant on Long Island to another reactor site.), and
- a heavy lift plane for air transfer of SNF (Calculations have shown that canisters storing SNF in an open environment will survive a crash with an airplane without releasing radiation to the environment. This being the case, the obverse should also be true, i.e., if a transport plane were carrying this canister then a crash landing should release no radioactivity. The cutting edge of transport plane capacity is in the 150 ton range, which should provide the ability to air lift most existing SNF canisters.)

The United States Department of Energy (DOE) is in the process of [selecting a site](#) for the consolidated interim storage (CIS) of SNF. If NIMBY (not in my back yard) protests prevents the DOE from finding a CIS site in any State of the Union or if SNF storage at the Village is more cost effective, the USA can transfer some or all of its SNF to one or more INVs.

This might be an attractive option for the 2,813 metric tons of SNF stranded at shutdown plants in California (Humboldt Bay and Rancho Seco), Connecticut (Haddam Neck), Illinois (Zion 1 & 2), Maine (Maine Yankee), Massachusetts (Yankee Rowe), Michigan (Big Rock Point), Oregon (Trojan), and Wisconsin (LaCrosse).

The SNF stored in the five coastal States can be loaded using piers in each State and transferred by ship/barge to International Nuclear Village™ One. The SNF in the three inland states can be air lifted to Guantanamo Bay in Cuba and then transferred by ship/barge to International Nuclear Village™ One.

The plan is to acquire funding by selling common stock in International Nuclear Village™ One IAW the below distribution plan, supplemented by a loan from the World Bank.

- Ten percent (10%) sold in a private placement to SEC qualified sophisticated investors. The Board selected by these investors will elect an initial ten year Management Team.
- Ten percent (10%) sold in an IPO.
- Ten percent (10%) reserved for distribution among the Advisors and Management Team.
- The final seventy percent (70%) held in escrow for possible distribution to the initial investors. After ten years, if the value of the stock is less than or equal to the initial cost, then 70% of the stock will be distributed to the initial investors; if the value is equal to or greater than five times the initial cost, then no additional stock will be distributed; and a proportionate amount will be distributed if the stock value is between these two extremes. The balance, if any, or the full 70% if the above predetermined performance parameter is met, will be distributed to Consultants/Advisors, the Management Team, and others to be determined.

As soon as seed money is acquired, GE-Hitachi and/or TerraPower will be solicited to provide a Generation IV nuclear power plant at the first and later INVs.

Consultants working on this initiative are, in alphabetical order:

- **Mark Campagna** - United States Naval Academy: [LinkedIn Profile](#)
- **Clinton Crackel** - Co-Founder: Nuclear Fuels Reprocessing Coalition: [LinkedIn Profile](#)
- **James Ertner** - Masters Degrees: MIT: [LinkedIn Profile](#)
- **Thomas D. Hall** - Maine Maritime Academy: [LinkedIn Profile](#)
- **Leon Neihouse** – Qualified as Chief Engineer of a nuclear submarine: [LinkedIn Profile](#)

This list consists of four U.S. Navy veterans and one U.S. Air Force veteran.

Consent Based Siting

From: Secure Nuclear Waste
Sent: Monday, June 06, 2016 2:44 AM
To: Consent Based Siting
Subject: Stop Edison From Making San Onfre A Nuclear Waste Dump

[View this email in your browser](#)

**STOP EDISON
FROM CREATING A NUCLEAR WASTE DUMP
AT SAN ONOFRE**

LAGUNA BEACH CITY HALL, JUNE 8, 6PM (ARRIVE EARLY)

Comparison of Cesium-137 Inventories (Curies)

Event	Inventories (Curies)
10 Megaton Nuclear Weapon	~10,000,000
Chernobyl Accident	~1,000,000
Atmospheric Nuclear Tests	~15,000,000
SONGS 2 Spent Fuel Pool	~75,000,000
SONGS 3 Spent Fuel Pool	~70,000,000
SONGS Dry Casks	~20,000,000

San Onofre HOLDS 89 TIMES The Amount of Radiation as Was Released at Chernobyl!

Learn From the Experts

Mike Aguirre, Former San Diego City Attorney
Legal Argument for Edison to remove it NOW

Rita Conn, Let Laguna Vote/Secure Nuclear Waste
Significant Political & Legal Wins-Next Steps

Maria Severson, Consumer Fraud Attorney
Climate Of Corruption surrounding SONGS

Pam Patterson, SJC Mayor, Edison CEP Member
Insight Into Edison's Community Engagement

Nina Babiarz, Transportation & Technology Leader
Nuclear Waste Transportation

Charles Langley, Public Watchdogs
Taxpayer's and Ratepayer's Costs

Bill Honigman MD, Emergency Room Specialists
Are We Prepared for an Emergency?

Robert Pope, Geologist and Environmental Scientist
San Onofre Geological and Corporate Erosion

FOR MORE INFORMATION SECURENUCLEARWASTE.COM | RSVP APPRECIATED TO INFO@SECURENUCLEARWASTE.NET

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Consent Based Siting

From: Judi Poulson
Sent: Friday, June 03, 2016 5:41 AM
To: Consent Based Siting
Subject: Response to IPC

No waste dump in New England!
Thanks.

Judi Poulson

Consent Based Siting

From: Vicki Gibson
Sent: Thursday, June 02, 2016 11:32 PM
To: Consent Based Siting
Subject: Consent-based siting meetings

I would like to suggest that you have a consent-based site meeting in west Texas or southeast NM since this is one of the proposed sites. The closest meeting to us is in Tempe, some 700+ miles (11 hour drive) from the proposed site in TX/NM. I understand that we have the option of submitting our comments in writing but I think DOE should at least make an effort to come to the area where the site is being proposed so DOE can hear from those of us most effected.

Thank you for your consideration.

Vicki Gibson

Consent Based Siting

From: Michelle Gale
Sent: Thursday, June 02, 2016 11:33 PM
To: Consent Based Siting
Subject: Response to IPC

Dear Sir or Madam:

I don't know what we're going to do with all the deadly radioactive waste we've been producing for the last 70 and haven't stopped generating yet, but allowing the nuclear facilities that created this stuff to wash its hands of it at the expense of American citizens is unconscionable. Please prevent nuclear waste from being stored in New England which, although I'm clear across the country, I dearly love.

Sincerely yours,
Michelle Gale, Ph.D.

Consent Based Siting

From: Gerson Lesser
Sent: Thursday, June 02, 2016 6:47 PM
To: Consent Based Siting
Subject: nuclear waste sites

Gentlemen:

By their very nature, nuclear waste sites are highly dangerous due to leaks, potential attacks, etc.

The danger can affect very large areas and preclude habitation of these areas for hundreds of years. Despite many years investigating this item, no safe site has ever been designated. It is therefore a very serious ongoing problem; and no site can safely be approved at this time.

Gerson Lesser, M.D.
New York University School of Medicine

Consent Based Siting

From: Jerry
Sent: Thursday, June 02, 2016 6:47 PM
To: Consent Based Siting
Subject: "Response to IPC" [Invitation for Public Comment]

DOE,

We the U.S. citizens do not ever want storage of radioactive waste with half life of (10,000 years?) here in the North East.

Our area is subject to natural disasters like Hurricanes, Tornado's, and flooding. There is no way for DOE to insure the integrity of the waste sites for centuries to come. Many of DOE's nuclear sites are already disintegrating. Fix all of them now.

Jerry Amos

Consent Based Siting

From: caryn graves
Sent: Thursday, June 02, 2016 4:44 PM
To: Consent Based Siting
Subject: "Response to IPC" [Invitation for Public Comment]

We do not consent to DOE rushing into de facto permanent parking lot dumps (so called “centralized” or “consolidated interim storage”), in order to expedite the transfer of title and liability from the nuclear utilities that profited from the generation of high-level radioactive waste, onto the backs of the taxpayers.

We do not consent to the targeting, yet again, of low-income, Native American, and other communities of color, with high-level radioactive waste parking lot dumps. It is most ironic that President Obama’s Blue Ribbon Commission on America’s Nuclear Future, and his DOE, have yet again targeted Native Americans. Obama honored Sauk and Fox environmental activist Grace Thorpe for defending her reservation in Oklahoma against a parking lot dump, and then assisting allies at dozens of other reservations being targeted by DOE’s Nuclear Waste Negotiator. Obama praised Thorpe as a “Woman Taking the Lead to Save Our Planet,” alongside the likes of Rachel Carson of Silent Spring fame, in his March 2009 Women’s History Month proclamation. Similarly, Yucca Mountain, Nevada is Western Shoshone Indian land, as the U.S. government acknowledged by signing a treaty. In addition, Yucca is not scientifically suitable. It is an active earthquake zone, a volcanic zone, and water-saturated underground. If waste is ever buried there, it will leak massively into the environment. And the State of Nevada has never consented to becoming the country’s high-level radioactive waste dump.

The mountain of radioactive waste in the U.S. has grown 70 years high, and we still don’t know what to do with the first cupful. Radioactive waste may well prove to be a “trans-solutional” problem, one created by humans, but beyond our ability to solve. The only safe, sound solution for radioactive waste is to not make it in the first place. Reactors should be permanently shut down, to stop the generation of high-level radioactive waste for which we have no good solution.

Thank you for your time and attention to this matter.

Sincerely,

Caryn Graves
Berkeley, CA

Consent Based Siting

From: jim yarbrough
Sent: Thursday, June 02, 2016 3:46 PM
To: Consent Based Siting
Subject: Radioactive waste dumps

Consent-Based Siting, HQ, DOE:

No radioactive waste sites in New England. And I also oppose high-risk, high-level radioactive waste shipments (by road, rail, and/or waterway) to Yucca Mountain, Nevada, as well as to "centralized interim storage sites" (de facto permanent parking lot dumps).

A good way to reduce the amount of radioactive waste:stop creating it. Phase out ALL nuclear power plants in the USA, and throughout the world. Leave uranium in the ground. Reduce the number and potency and manufacture of nuclear weapons. Negotiate verifiable nuclear weapons agreements that phase out nuclear weapons

For now, securing radioactive waste on site in safest manner is best possible option.

Another option is that radioactive waste should be stored in the safest possible manner on the property of past and present DOE members, who for so long have brought us the radioactive waste we must now live with, at great hazard to all life on the entire planet.

DOE, please think renewable energy.

Jim Yarbrough South Pasadena, CA

Consent Based Siting

From: darynne jessler
Sent: Thursday, June 02, 2016 3:25 PM
To: Consent Based Siting
Subject: Response to IPC - Consent-Based Sitting

To: DoE
Fr: Darynne Jessler

Count me in with the Beyond Nuclear position on this subject.....

THE RUSH JOB TO *DE FACTO* PERMANENT PARKING LOT DUMPS, FOR ALL THE WRONG REASONS: We do not consent to DOE rushing into *de facto* permanent parking lot dumps (so-called “centralized” or “consolidated interim storage”), in order to expedite the transfer of title and liability from the nuclear utilities that profited from the generation of high-level radioactive waste, onto the backs of taxpayers.

FLOATING FUKUSHIMAS ON SURFACE WATERS: We do not consent to radioactive waste barge shipments on the lakes and rivers of this country, the fresh drinking water supply for countless millions, nor on the seacoasts. In addition to a disastrous radioactive release if the shipping container is breached, infiltrating water could spark a nuclear chain reaction, if a critical mass forms, due to the fissile U-235 and Pu-239 still present in the waste.

MOBILE CHERNOBYLS/DIRTY BOMBS ON WHEELS: We do not consent to high-level radioactive waste truck and train shipments through the heart of major population centers; through the agricultural heartland; on, over, or alongside the drinking water supplies of our nation. Whether due to high-speed crashes, heavy crushing loads, high-temperature/long duration fires, falls from a great height, underwater submersions, collapsing transport infrastructure, or intentional attack with powerful or sophisticated explosives, such as anti-tank missiles or shaped charges, high-level radioactive waste shipments, if breached, could unleash catastrophic amounts of hazardous radioactivity into the environment.

ENVIRONMENTAL INJUSTICE/RADIOACTIVE RACISM: We do not consent to the targeting, yet again, of low-income, Native American, and other communities of color, with high-level radioactive waste parking lot dumps. It is most ironic that President Obama’s Blue Ribbon Commission on America’s Nuclear Future, and his DOE, have yet again targeted Native Americans. Obama honored Sauk and Fox environmental activist Grace Thorpe for defending her reservation in Oklahoma against a parking lot dump, and then assisting allies at dozens of other reservations being targeted by DOE’s Nuclear Waste Negotiator. Obama praised Thorpe as a “Woman Taking the Lead to Save Our Planet,” alongside the likes of Rachel Carson of *Silent Spring* fame, in his March 2009 Women’s History Month proclamation. Similarly, Yucca Mountain, Nevada is Western Shoshone Indian land, as the U.S. government acknowledged by signing a treaty. In addition, Yucca is not scientifically suitable. It is an active earthquake zone, a volcanic zone, and water-saturated underground. If waste

is ever buried there, it will leak massively into the environment. And the State of Nevada has never consented to becoming the country's high-level radioactive waste dump.

SITES CURRENTLY AT THE VERY TOP OF THE TARGET LIST FOR *DE FACTO* PERMANENT

PARKING LOT DUMPS: We do not consent to the targeting of nuclear power plants, radioactive waste dumps, or DOE sites, already heavily contaminated with radioactivity and burdened with high-level radioactive waste, to become parking lot dumps for the importation of other sites' or reactors' wastes. DOE, NRC, and industry's top targets include Waste Control Specialists in Andrews County, TX; Eddy-Lea Counties, NM, near DOE's Waste Isolation Pilot Plant; DOE's Savannah River Site, SC; Dresden nuclear power plant in Morris, IL; the list goes on. (continued over)

RISKS OF HIGH-LEVEL RADIOACTIVE WASTE STORAGE POOLS, AND NEED FOR

HARDENED ON-SITE STORAGE (HOSS): As just re-confirmed by the National Academies of Science, and Princeton U. researchers Von Hippel and Schoeppner, pools are at risk of fires that could unleash catastrophic amounts of hazardous Cesium-137 into the environment over a wide region. Since 2002, a coalition of hundreds of environmental and public interest groups, representing all 50 states, has called for expedited transfer of high-level radioactive waste from vulnerable pools into hardened dry casks, designed and built to last not decades but centuries, without leaking, safeguarded against accidents and natural disasters, and secured against attack.

NUCLEAR POWER AND HIGH-LEVEL RADIOACTIVE WASTE GENERATION: The mountain of radioactive waste in the U.S. has grown 70 years high, and we still don't know what to do with the first cupful. Radioactive waste may well prove to be a "trans-solutional" problem, one created by humans, but beyond our ability to solve. The only safe, sound solution for radioactive waste is to not make it in the first place. Reactors should be permanently shut down, to stop the generation of high-level radioactive waste for which we have no good solution.

Add your additional idea(s) here! Or use the ones above verbatim, or adapt them to your own words.

How to Submit Public Comments by DOE's July 31, 2016 deadline:

Attend a DOE "Consent-Based Siting" public meeting. Citizens have successfully demanded oral public comment opportunities as part of these public meetings. See <http://www.beyondnuclear.org/radioactive-waste-whatsnew/2016/4/27/four-down-five-to-go-doe-consent-based-siting-meetings.html> for a listing of the remaining public meetings between now and July 31: **Boston June 2; Tempe June 23; Boise July 14; Minneapolis July 21.**

Email: Responses may be provided by email to consentbasedsiting@hq.doe.gov. Please **include "Response to IPC" [Invitation for Public Comment] in the subject line.**

Mail: Responses may be provided by mail to the following address: **U.S. Department of Energy, Office of Nuclear Energy, Response to IPC, 1000 Independence Ave. SW., Washington, DC 20585.**

FAX: Responses may be faxed to **202-586-0544.** Please **include "Response to IPC" on the FAX cover page.**

Online: Responses will be accepted online at www.regulations.gov. [DOE has here only provided the general website -- **<Consent-Based Siting> must be entered in the search field to get to you to the precise site**, where you can then input your submission.]

Prepared by Kevin Kamps, Radioactive Waste Watchdog at Beyond Nuclear, on May 28, 2016. For additional information, contact Kevin at . To see a longer, more detailed version of these talking points, with links to further background documentation, go to

<http://www.beyondnuclear.org/radioactive-waste-whatsnew/2016/5/18/we-do-not-consent-sample-talking-points-you-can-use-to-prepa.html>

Consent Based Siting

From: Sherrill Futrell
Sent: Thursday, June 02, 2016 3:18 PM
To: Consent Based Siting
Subject: I do not consent!

I DO NOT CONSENT TO YOUR PLANS FOR high-risk, high-level radioactive waste shipments (by road, rail, and/or waterway) to Yucca Mountain, Nevada, as well as to "centralized interim storage sites" (*de facto* permanent parking lot dumps). Shame on you for even thinking of it. I'm a grandmother and it's your problem. I never gave consent in the first place to the development of nuclear power or weapons in this country. You need to clean it up, not move it away from your house.

Consent Based Siting

From: Howard Shaffer
Sent: Thursday, June 02, 2016 1:11 PM
To: Consent Based Siting
Subject: Consent-Based process: A good start

Previous attempts to site high-level nuclear waste disposal have been top-down in the political process and have failed. Starting over with a bottom-up process is a worthy effort and recognizes what failures have proven: our political, regulatory and judicial process is now set up so that a dedicated (lie down in front of the bus) group can block or stall an issue they oppose, for a long time. Nuclear power is one such issue. (Another may be abortion.)

The Vermont experience, among others, reveals that the underlying issue is a near-paralyzing fear of radiation. This fear was created by the governments radiation regulations implying/saying any amount of radiation is dangerous.

The evidence is that there is a small group in the human population that is susceptible to this fear of radiation, just as there are small groups afraid of spiders, heights, closed spaces, etc. We see passionate anti-nuclear movements around the world.

Until the this fear is directly acknowledged, and it is said that there is in fact something to be "afraid of" progress will be blocked.

Along with the acknowledgement of genuine fear in some, it must be stated to those who are fearful that everyone doesn't do "afraid" the same way. Those opposed to nuclear power want it to go away, and the world to become as if it had never existed. Most others react by wanting to be very careful, so that benefits may be obtained, while understanding that the "clock can never be turned back" and the "genie can never be put back in the bottle." As long as the knowledge that nuclear energy is possible exists in the memory of humanity, someone, somewhere, sometime will exploit it for evil, so we must know how to control it.

Howard Shaffer PE (nuclear)
2001 ANS-AAAS Congressional Fellow

Consent Based Siting

From: Paul Sheridan
Sent: Wednesday, June 01, 2016 9:44 PM
To: Consent Based Siting
Subject: re: DOE's "Consent-Based Siting" of Radioactive Waste Dumps

I Do Not Consent!

re: DOE's "Consent-Based Siting" of Radioactive Waste Dumps

I live along the coast in Maine, near to US Route 1 and Searsport.

I most certainly DO NOT CONSENT to this active threat to my life and the health of our communities..

THE RUSH JOB TO DE FACTO PERMANENT PARKING LOT DUMPS, FOR ALL THE WRONG REASONS: We do not consent to DOE rushing into de facto permanent parking lot dumps (so-called "centralized" or "consolidated interim storage"), in order to expedite the transfer of title and liability from the nuclear utilities that profited from the generation of high-level radioactive waste, onto the backs of taxpayers.

FLOATING FUKUSHIMAS ON SURFACE WATERS: We do not consent to radioactive waste barge shipments on the lakes and rivers of this country, the fresh drinking water supply for countless millions, nor on the seacoasts. In addition to a disastrous radioactive release if the shipping container is breached, infiltrating water could spark a nuclear chain reaction, if a critical mass forms, due to the fissile U-235 and Pu-239 still present in the waste.

MOBILE CHERNOBYLS/DIRTY BOMBS ON WHEELS: We do not consent to high-level radioactive waste truck and train shipments through the heart of major population centers; through the agricultural heartland; on, over, or alongside the drinking water supplies of our nation. Whether due to high-speed crashes, heavy crushing loads, high-temperature/long duration fires, falls from a great height, underwater submersions, collapsing transport infrastructure, or intentional attack with powerful or sophisticated explosives, such as anti-tank missiles or shaped charges, high-level radioactive waste shipments, if breached, could unleash catastrophic amounts of hazardous radioactivity into the environment.

ENVIRONMENTAL INJUSTICE/RADIOACTIVE RACISM: We do not consent to the targeting, yet again, of low-income, Native American, and other communities of color, with high-level radioactive waste parking lot dumps. It is most ironic that President Obama's Blue Ribbon Commission on America's Nuclear Future, and his DOE, have yet again targeted Native Americans. Obama honored Sauk and Fox environmental activist Grace Thorpe for defending her reservation in Oklahoma against a parking lot dump, and then assisting allies at dozens of other reservations being targeted by DOE's Nuclear Waste Negotiator. Obama praised Thorpe as a "Woman Taking the Lead to Save Our Planet," alongside the likes of Rachel Carson of Silent Spring fame, in his March 2009 Women's History Month proclamation. Similarly, Yucca Mountain, Nevada is Western Shoshone Indian land, as the U.S. government acknowledged by signing a treaty. In addition, Yucca is not scientifically suitable. It is an active earthquake zone, a volcanic zone, and water-saturated underground. If waste is ever buried there, it will leak massively into the environment. And the State of Nevada has never consented to becoming the country's high-level radioactive waste dump.

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other sites' or reactors' wastes. DOE, NRC, and industry's top targets include Waste Control Specialists in Andrews County, TX; Eddy-Lea Counties, NM, near DOE's Waste Isolation Pilot Plant; DOE's Savannah River Site, SC; Dresden nuclear power plant in Morris, IL; the list goes on.

RISKS OF HIGH-LEVEL RADIOACTIVE WASTE STORAGE POOLS, AND NEED FOR HARDENED ON-SITE STORAGE (HOSS): As just re-confirmed by the National Academies of Science, and Princeton U. researchers Von Hippel and Schoeppner, pools are at risk of fires that could unleash catastrophic amounts of hazardous Cesium-137 into the environment over a wide region. Since 2002, a coalition of hundreds of environmental and public interest groups, representing all 50 states, has called for expedited transfer of high-level radioactive waste from vulnerable pools into hardened dry casks, designed and built to last not decades but centuries, without leaking, safeguarded against accidents and natural disasters, and secured against attack.

NUCLEAR POWER AND HIGH-LEVEL RADIOACTIVE WASTE GENERATION: The mountain of radioactive waste in the U.S. has grown 70 years high, and we still don't know what to do with the first cupful. Radioactive waste may well prove to be a "trans-solutional" problem, one created by humans, but beyond our ability to solve. The only safe, sound solution for radioactive waste is to not make it in the first place. Reactors should be permanently shut down, to stop the generation of high-level radioactive waste for which we have no good solution.

Paul Sheridan

Consent Based Siting

From: Jim Garb
Sent: Wednesday, June 01, 2016 5:12 PM
To: Consent Based Siting
Subject: Response to IPC

FROM: James R. Garb, MD

June 1, 2016

To Whom it may Concern:

Thank you for the opportunity to provide input to the DOE regarding the development of a consent-based siting process for nuclear waste. I am an occupational and environmental medicine physician living in the shadow of the Pilgrim Nuclear Power Station in Plymouth MA. The safe decommissioning of Pilgrim and the transport of its large quantity of spent nuclear fuel rod assemblies to a remote, secure site are of the utmost importance to me and to the 225,000 permanent residents of Cape Cod, who would be cut off from any feasible means of evacuation should there be a release of radiation at Pilgrim.

When the US nuclear energy program was begun, the American people were told two things: that the energy from nuclear power would be "too cheap to meter", and that the government would provide for the safe long term storage of the nuclear waste that the plants generated. Both assertions have been proven to be false. Pilgrim was poorly sited to begin with. It is too close to a major metropolitan area, Boston, and it is one of a handful of nuclear plants in the country where a nuclear accident would cut off a large segment of the population from a realistic chance to evacuate. Indeed, residents of the Cape would have to travel toward the accident in order to get away from it; and that is assuming the two bridges to the Cape remain open and are not closed in order to permit residents of Plymouth to evacuate, as is the current plan.

Clearly, the long term storage of nuclear waste near a major metropolitan area, or where there is no realistic evacuation plan, is unacceptable to us, and should be unacceptable to anyone. In my opinion, any such storage site should be in a very rural part of the country and far removed from any population centers. I think the only realistic option is to place the facility somewhere where there are no residents within a 50 mile radius of the site, and where there are good roads to provide evacuation routes for those who live beyond the 50 mile radius.

Sincerely,

James R. Garb, MD FACOEM

Consent Based Siting

From: Sue Malone
Sent: Wednesday, June 01, 2016 3:31 PM
To: Consent Based Siting

What would it take for me to accept nuclear waste in my area? I wouldn't accept it under any conditions. I fought nuclear energy as it was happening and will continue to do so.

Sue Malone
Westborough, MA

Consent Based Siting

From: Peter Van der Does
Sent: Wednesday, June 01, 2016 2:26 PM
To: Consent Based Siting
Subject: Response to IPC

Local inhabitants in proximity to closed nuclear power plants are not informed that dry casks containing spent nuclear fuel with high level radioactive Plutonium will stay out in the open for ever and a day and that eventually in some distant future the casks will deteriorate leaving a cancerous legacy.

Local inhabitants should be informed of the dangers of leaving these casks out in the open as the contents will stay highly radioactive for thousands of years and subject to decay or possibly sabotage.

Local inhabitants should also have a say in what stays in their backyard.

The Holtec 100 U which is licences by the NRC is a good alternative. Hardened underground storage of spent nuclear fuel easily accessible by overhead covers such as used at the Calaway nuclear site is a good solution until the DOE can take possession and deliver to a Federal depository.

Consent Based Siting

From: Jane Logan
Sent: Monday, May 30, 2016 2:57 PM
To: Consent Based Siting
Subject: Meeting on 6/2/16

Massachusetts has one Nuclear power plant which is located in Plymouth, MA - why is the meeting being held in Boston and starting so early that it makes it difficult for people who work outside of Boston to attend?

Jane Logan

Consent Based Siting

From: Erica Stanojevic
Sent: Saturday, May 28, 2016 7:39 PM
To: Consent Based Siting
Subject: Consent-Based Siting - Response to IPC

Do not approve high-risk transport and radioactive waste dumps.

Best,
Erica Stanojevic
California

Consent Based Siting

From: Ed Benner
Sent: Thursday, May 26, 2016 4:57 PM
To: Consent Based Siting
Cc: Benner Bev
Subject: Response to IPC [Invitation for Public Comment]

To whom it may concern,

We ***DO NOT*** give our consent to have radioactive spent fuel transported through our state by ***any means*** including truck or rail, and not excluding other possible ways of transportation. The costs of explosion, fire, and other catastrophe damage control would be simply ***too great*** to be underwritten by any governmental, private agency, or group of citizens.

Likewise, we ***DO NOT*** give our consent to have radioactive spent fuel ***STORED*** anywhere in our state.

Ed (and Bev) Benner

Consent Based Siting

From: Eduardo Garcia
Sent: Saturday, May 21, 2016 6:25 PM
To: Consent Based Siting
Subject: Re: FW: Join the U.S. Dept. of Energy's Public Meeting on May 24 in Denver, CO
Attachments: residuesDocumento.rtf

Hello

My participation in your organization is to present a solution that have patented and approved with President Chirac of France.

It is a safer method of confinement because the contents of the well has been extracted and its characteristic of being sealed for millions of years has not changed.

Thus I have given the "title" of the patent sending them now ..

Relamente is a solution without limits state and volume (solids. Liquids and gases) CO2 injecting the overall fitness test.

My experience is vast and I can say that this is just a way to make a simple and very effective work.

I await your response and how I can present on Tuesday this real option and that no one can object.

Eduardo Garcia

Speak Spanish

The translation of Google

Nuclear waste neutralization
D` Patent Application invention
Filed on April 16, 1997 under No. 97 04683
Title: Eduardo D.García

"NEUTRALIZATION PROCESS OF HAZARDOUS WASTE AND / OR NUCLEAR"

The present invention is intended to neutralize the very dangerous and / or nuclear waste.

Currently, this type of waste stored in their warehouses or dumps that are neither stable nor permanent, which makes them dangerous in the future.

The present application relates to a process that is intended to cancel the drawbacks of these stores.

To this end, we propose d` use old oil or gas, yd` l`un at least injected into these wells, hazardous waste, preferably in the same conduit used to extract oil or gas and then sealing od` injection ducts, preferably with concrete.

Therefore, the neutralization process hazardous waste and / or nuclear l`invention characterized qu`il involves injecting the waste by at least one conduit in at least one oil or gas old, and then sealing each d`injection conduit.

Advantageously, which is used as d` injection carried the same conduit used to extract oil or gas. Also advantageously, it comprises sealing at least one d` injection waste concrete conduit.

Pou most of this waste, so s`agit d` a return to the source, ecologically justified manner.

D` hydrocarbons or hydrocarbons or natural gas, which have spent millions d` years in these bags, it doesn`t no objective reason to fear a deterioration of storage conditions.

However, there is no place for Integral étude of the geology of the site prior to use by finding as deep as possible.

Home The invention is also intended application `s old oil or gas for storage of hazardous waste and / or nuclear` s in at least one of these wells.

COMPLAINTS

1. A method for the disposal of waste and / or nuclear hazardous, characterized qu` involves the injection of the waste by at least one conduit in at least one old oil or gas and then sealing each conduit injection d`.
2. Method according to claim 1, characterized qu` use as injection conduit d` the same tube used to extract oil or gas.
3. A method according `s one of claims 1 and 2, characterized qu` is to seal at least one injection conduit d` waste concrete.
4. Application of old oil or gas, which qu` consisting of storing hazardous waste and / or `s nuclear in at least one of these wells.

"WASTE NEUTRALIZATION PROCESS

Hazardous and / or nuclear "

BRIEF

The neutralization process' s invention involves injection of waste and / or nuclear hazardous by at least one conduit in at least one oil or gas and then seal old conduit d` each injection.

Application to neutralisation waste and / or nuclear hazardous.

2016-05-19 16:00 GMT-03:00 Consent Based Siting <consentbasedsiting@hq.doe.gov>:



Hello,

On Tuesday, May 24th, the Department of Energy will host a public meeting in Denver on designing a consent-based process to site facilities needed to manage our nation's nuclear waste. The Department is seeking diverse viewpoints to strengthen the design of its consent-based siting process. We hope to hear from you on issues such as:

- fairness
- models and experience to draw from
- the roles of communities, states, Tribal Nations, and others in consent-based siting
- information and resources needed to achieve informed consent
- other perspectives and values the Department should consider

Ultimately, based on your input, the Department will design a proposed process for developing a site, which will in turn serve as a framework for collaborating with potential host communities in the future.

The public meeting will be held at the [Embassy Suites Denver Stapleton](#) from 5:00 PM until 9:30 Mountain Daylight Time. Registration is encouraged in order to assist our logistics planning. To register, please visit [this registration page](#). Those unable to attend in person can view the meeting online through a [live webcast](#). For more information, please visit our website at energy.gov/consentbasedsiting.

We look forward to your participation and hope to see you in Denver!

John Kotek

*Neutralisation Dechets Nucleaires
Demande de Brevet d` invention
Déposée le 16 Avril 1997 sous le N° 97 04683
Titulaire: Eduardo D.García*

"PROCEDE DE NEUTRALISATION DE DECHETS DANGEREUX ET / OU NUCLEAIRES"

La présente invention est destinée à la neutralisation des déchets très dangereux et / ou nucléaires.

Actuellement, ces déchets sont stockés dans des dépôts ou décharges qui ne sont ni stables, ni permanents, ce qui les rends dangereux dans le futur.

La présente demande de brevet a pour objet un procédé qui est donc destiné à annuler les inconvénients de ces stockages.

Pour ce faire, nous proposons d` utiliser les anciens puits de pétrole ou de gaz, et d` injecter, dans l`un au moins de ces puits, des déchets dangereux, de préférence par le même conduit qui servait à extraire le pétrole ou le gaz, puis de sceller le ou les conduits d` injection, de préférence avec du béton.

Le procédé de neutralisation de déchets dangereux et / ou nucléaires de l`invention se caractérise donc en ce qu`il consiste à injecter lesdits déchets par au moins un conduit dans au moins un ancien puits de pétrole ou de gaz, puis à sceller chaque conduit d` injection.

Avantageusement, il consiste à utiliser, comme conduit d`injection, le même conduit ayant servi à extraire le pétrole ou le gaz.

Avantageusement en outre, il consiste à sceller au moins un conduit d` injection de déchets avec du béton.

Pour la plupart de ces déchets, il s`agit donc d` un retour à la source, donc écologiquement justifié.

Les hydrocarbures ou gaz d` hydrocarbures ou naturels ayant séjourné pendant des millions d` années dans ces poches, il n` y a pas de raison objective de craindre une dégradation des conditions de stockage.

Il y a lieu toutefois de réaliser une étude approfondie de la géologie du site avant son utilisation, en recherchant le plus grande profondeur possible.

L` invention a enfin pour but l` application des anciens puits de pétrole ou de gaz au stockage des déchets dangereux et / ou nucléaires dans l` un au moins de ces puits.

REVENDICATIONS

1. Procédé de neutralisation de déchets dangereux et / ou nucléaires, caractérisé en ce qu` il consiste à injecter lesdits déchets par au moins un conduit dans au moins un ancien puits de pétrole ou de gaz , puis à sceller chaque conduit d` injection.
2. Procédé selon la revendication 1, caractérisé en ce qu` il à utiliser, comme conduit d` injection, le même conduit ayant servi à extraire le pétrole ou le gaz.
3. Procédé selon l` une des revendications 1 et 2, caractérisé en ce qu` il consiste à sceller au moins un conduit d` injection de déchets avec du béton.
4. Application des anciens puits de pétrole ou de gaz, caractérisée en ce qu` elle consiste à stocker des déchets dangereux et / ou nucléaires dans l` un au moins de ces puits.

" PROCEDE DE NEUTRALISATION DE DECETS DANGEREUX ET / OU NUCLEAIRES "

ABREGE

Le procédé de neutralisation de l` invention consiste à injecter des déchets dangereux et / ou nucléaires par au moins un conduit dans au moins un ancien puits de pétrole ou de gaz, puis à sceller chaque conduit d` injection.

Application à la neutralisation de déchets dangereux et / ou nucléaires.

Consent Based Siting

From: Secure Nuclear Waste / Let Laguna Vote

Sent: Saturday, May 21, 2016 2:05 PM

To: Consent Based Siting

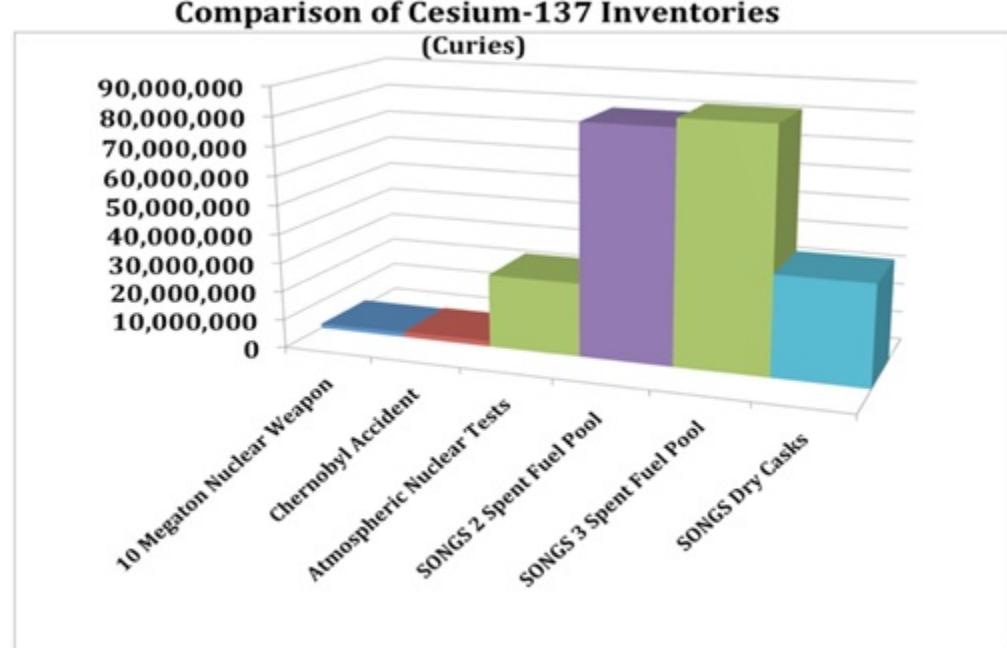
Subject: Where, When and How? Forcing Edison to Remove All Radiation From San Onofre

[View this email in your browser](#)

Dear Supporters,

I don't like to bother you with emails, However this is important!.

**SAN ONOFRE CONTAINS 89 TIMES THE AMOUNT OF
RADIATION AS WAS RELEASED AT CHERNOBYL**



Senior Policy Advisor Richard Alvarez

"We have been working behind the scenes for the past 2 ½ years. We have made trips to Washington DC and have met with The Department of Nuclear Energy, elected officials, and experts in nuclear transportation. We have been in contact with Homeland Security and have met with the Orange County Terrorism Taskforce. We have attended numerous meetings, testified at the Coastal Commission and have listened to Edison's lies and total disregard for public safety.

We are making political and exciting legal progress to remove all radiation form San Onofre. I am especially excited to announce the formation of **Secure Nuclear Waste Coalition**. This is a Coalition of San Diego and Orange County concerned citizens, elected officials and legal authorities.

Edison, if not stopped will bury 1632 tons of lethal radioactive material that contains 89 times the amount of radiation that was released at Chernobyl in untested and experimental canisters on the beach, 42 yards from the ocean and 3 feet above the water table.

We have now reached the point that **with enough people behind us we can**

force Edison to remove San Onofre's nuclear radioactive materials. You need to be educated. The public must step up and not leave this to a handful of activists.

Mark Your Calendars! Bring Your Neighbors
We All Have Responsibility To Stop Edison

Wednesday, June 8, 6 PM
Laguna Beach City Hall

Where, When and How?
Forcing Edison to Remove All Radiation From San Onofre

Learn From The Experts:

Mike Aquire, Former San Diego City Attorney
Legal Argument for Edison to remove it NOW.

Rita Conn, Let Laguna Vote/Secure Nuclear Waste
Significant Political & Legal Wins--Next Steps

Maria Severson, Consumer Fraud Attorney
Climate Of Corruption surrounding SONGS

Pam Patterson, SJC Mayor, Edison CEP Member
Insight Into Edison's Community Engagement Panel

Nina Babiarz, Transportation & Technology Leader
Nuclear Waste Transportation

Charles Langley, Public Watchdogs
Taxpayer and Ratepayer's Cost

Bill Honigman MD, Emergency Room Specialists

Are We Prepared for an Emergency?

Robert Pope, Geologist and Environmental Scientist

Geological and Corporate Erosion

Presentations will be followed by your questions and comments.

You won't want to miss this exciting presentation and learn about what's next as we FORCE Edison to do the right thing.

See You June 8

Warm regards,

Rita Conn

Secure Nuclear Waste Spokeswoman

Let Laguna Vote Chair

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Consent Based Siting

From: Gina Mori
Sent: Friday, May 20, 2016 5:59 PM
To: Consent Based Siting
Subject: Response to IPC- We do not consent corrected.pdf
Attachments: We do not consent corrected.pdf

Gina Mori

-----Original Message-----

From: winamarieag
To: Gina ; winamarieag
Sent: Thu, May 19, 2016 9:10 pm
Subject: We do not consent corrected.pdf

Sent from my Verizon Wireless smartphone

We do not consent!

Talking Points for Preparing Public Comments re: DOE's "Consent-Based Siting" of Radioactive Waste Dumps

***Use one or more of the following as a starting point for preparing
your own public comments by DOE's July 31 deadline***

See the very end of this document for how to submit public comments

THE RUSH JOB TO *DE FACTO* PERMANENT PARKING LOT DUMPS, FOR ALL THE WRONG REASONS

We do not consent to DOE rushing into parking lot dumps (so-called “centralized” or “consolidated interim storage,” in order to expedite the transfer of title and liability from the nuclear utilities that profited from the generation of high-level radioactive waste, onto the backs of taxpayers.

We do not consent to “centralized interim storage” facilities becoming ***de facto* permanent surface storage parking lot dumps** for high-level radioactive waste.

We do not consent to “games” of radioactive Russian roulette, radioactive hot potato, and radioactive musical chairs being played, when it comes to high-risk, high-level radioactive waste shipments on the roads, rails, and waterways through most states.

We do not consent to the nonsense of shipping high-level radioactive waste to “centralized interim storage,” when permanent disposal could well involve shipping those very same wastes, right back to, or through, where they came from in the first place, heading in the opposite direction.

We do not consent to the nuclear establishment’s “return to sender” schemes with “centralized interim storage.” Had the Private Fuel Storage, LLC (PFS) parking lot dump – its license for construction and operation at the Skull Valley Goshutes Indian Reservation in Utah rubber-stamped by the U.S. Nuclear Regulatory Commission (NRC) a decade ago – actually opened, this nonsensical multiplication of transport risks could have occurred. PFS’s plan was to dump the wastes at Yucca Mountain, Nevada. But its Plan B, should Yucca not open, was to “return to sender.” Yucca has been cancelled. Had the Maine Yankee nuclear power plant, for example, sent its wastes to PFS, they would have been “returned to sender.” More than 50 containers

of high-risk, high-level radioactive waste, shipped *5,000 miles round-trip* through numerous states, accomplishing absolutely nothing.

We do not consent to DOE's oldest trick in the book, of trying to divide and conquer, by attempting to play "orphaned" waste communities off against the rest of us – many "stranded" waste communities have stated explicitly that DOE's *de facto* permanent parking lot dump shenanigans are done "not in our name." DOE's stated purpose for prioritizing "stranded" waste export to parking lot dumps – to free up decommissioned nuclear power plant sites for "unrestricted," productive "re-use," is a non-starter. Decommissioning regulations are so inadequate, supposedly "cleaned up" sites are still significantly contaminated with hazardous radioactivity, making re-use of those sites risky for current and future generations.

FLOATING FUKUSHIMAS ON SURFACE WATERS

We do not consent to radioactive waste barge shipments on the lakes and rivers of this country, the fresh drinking water supply for countless millions, nor on the seacoasts.

We do not consent to "Floating Fukushimas." There are some 26 atomic reactors in the U.S. that lack direct rail access. Yet DOE has chosen the "mostly rail" shipping scenario of high-level radioactive wastes as its preferred policy. Rail shipping containers weigh more than 100 tons. These cannot go down the highways. They are designed to go down railways. But to get these giant, very heavy containers to the nearest railhead, either heavy haul trucks, or barges on waterways, would have to be used. Barges raise the specter of a high-level radioactive waste shipment sinking, with the potential for disastrous releases of high-level radioactive waste into drinking water supplies and fisheries, or even a nuclear chain reaction on the bottom of the surface waterway (there is enough fissile U-235 and Pu-239 present in high-level radioactive waste that, if a critical mass forms in the sinking disaster, and water infiltrates the container, a nuclear chain reaction could be initiated, worsening radioactivity releases to the water body, and making emergency response a suicide mission, given the fatal gamma doses coming off the chain reaction).

We do not consent to high-level radioactive waste shipments on the Great Lakes; one barge sinking could radioactively contaminate the drinking water supply for 40 million people in two countries – eight states in the U.S., and two provinces in Canada – as well as a large number of Native American First Nations. The Palisades reactor in southwest Michigan, and the Kewaunee and Point Beach nuclear power plants in Wisconsin, were revealed by DOE in 2002 to be potential barge shipment points of origin. The barges would ply the waters of Lake Michigan, headwaters for the rest of the Great Lakes downstream, and the direct drinking water supply for many millions of people, including the Chicago metro region.

We do not consent to high-level radioactive waste barge shipments from the Calvert Cliffs nuclear power plant in Maryland, to the Port of Baltimore on the Chesapeake Bay. A sinking could destroy decades of Bay restoration work in one fell swoop, putting countless watermen out of work forever, and wrecking the Bay's tourism and recreation industries, as well as its fragile, irreplaceable, vibrant, biologically diverse ecosystem.

We do not consent to high-level radioactive waste barge shipments from the Surry nuclear power plant in Virginia, to the Port of Norfolk on the James River. A sinking could ruin this historic river, and also impact the Chesapeake downstream.

We do not consent to Floating Fukushimas from the Salem/Hope Creek nuclear power plant in New Jersey traveling up the already badly polluted Delaware River to the Port of Wilmington.

We do not consent to Floating Fukushimas on the surface waters of New Jersey, New York, and Connecticut, surrounding the metropolitan New York City area, including: from New Jersey's Oyster Creek nuclear power plant, up the Jersey Shore, around Staten Island, New York, to the Port of Newark, New Jersey; from Indian Point nuclear power plant, down the Hudson River, past Manhattan, to the Port of Jersey City, New Jersey; and from the decommissioned Connecticut Yankee nuclear power plant site, down the Connecticut River, onto Long Island Sound, into the Port of New Haven, Connecticut. The very high security risks alone, of intentionally bringing ultra-hazardous high-level radioactive waste, into such close proximity to so many millions of people, is a non-starter.

We do not consent to Floating Fukushimas on Cape Cod Bay, Massachusetts Bay, and Boston Harbor, traveling from Pilgrim nuclear power plant to the Port of Boston.

We do not consent to Floating Fukushimas on the Mississippi River, traveling from the Grand Gulf nuclear power plant to the Port of Vicksburg in Mississippi.

We do not consent to Floating Fukushimas on the Tennessee River, traveling from the Browns Ferry nuclear power plant to Florence, Alabama.

We do not consent to Floating Fukushimas on the Missouri River, traveling from the Cooper nuclear power plant to the Port of Omaha in Nebraska.

We do not consent to Floating Fukushimas on the Pacific Coast, traveling from the Diablo Canyon nuclear power plant to Oxnard/Port of Hueneme in California.

We do not consent to Floating Fukushimas on south Florida's Atlantic Coast, traveling from St. Lucie nuclear power plant to Fort Lauderdale/Port of Everglades and/or from Turkey Point nuclear power plant to the Port of Miami.

We do not consent to Floating Fukushimas on any other surface waters in the U.S., whether they be fresh water drinking water supplies, or salt water fisheries.

MOBILE CHERNOBYLS/DIRTY BOMBS ON WHEELS

We do not consent to high-level radioactive waste truck and train shipments through the heart of major population centers; through the agricultural heartland; on, over, or alongside the drinking water supplies of our nation. Whether due to high-speed crashes, heavy crushing loads, high-temperature/long duration fires, falls from a great height, underwater submersions, collapsing transport infrastructure, or intentional attack with powerful or sophisticated explosives, such as anti-tank missiles or shaped charges, high-level radioactive waste shipments, if breached, could unleash catastrophic amounts of hazardous radioactivity into the environment.

We do not consent to heavy haul trucks (monster truck in front and back, two hundred wheels on the trailer in between, traveling only 3 miles per hour) as an end run attempt to transport very heavy rail casks to the nearest railhead, while attempting to avoid controversial, high-risk barge shipments.

We do not consent to Mobile Chernobyls, or Dirty Bombs on Wheels, traveling by railway through most states in the country under DOE's "mostly rail" shipping scheme.

We do not consent to Mobile Chernobyls, Fukushima Freeways, or Dirty Bombs on Wheels, traveling by highway through most states in the country, even under DOE's "mostly [but not entirely] rail" shipping scheme. (Casks designed for "legal-weight truck" shipments, as they are called, are significantly smaller and less heavy than rail casks, and would travel on interstate highways, and connecting roadways.)

We do not consent to containers, in violation of quality assurance and quality control (QA/QC) standards, being used to ship high-level radioactive waste. Commonwealth Edison/Exelon whistleblower Oscar Shirani, and NRC Midwest Region dry cask storage inspector, Dr. Ross Landsman, revealed major QA/QC violations with Holtec casks, 15 years ago. They questioned the structural integrity of Holtec casks *sitting still, going zero miles per hour*, let alone at 60 mph -- or faster -- on the rail lines. NRC has never adequately addressed these QA violations, so we have to assume they have continued right up to the present. Holtec containers have received an NRC rubber-stamp permit not only for on-site storage at more than a third of U.S. reactors, but also for rail/barge transport. To make matters worse, Holtec is the lead partner in the scheme to establish a parking lot dump in New Mexico. (The Private Fuel Storage, LLC parking lot dump targeted at the Skull Valley Goshute Indian Reservation, NRC rubber-stamped but later stopped despite this, would have utilized 4,000 Holtec casks, containing 40,000 metric tons of irradiated nuclear fuel.) Holtec is not the only high-level radioactive waste container with

QA/QC failures, however. NAC (Nuclear Assurance Corp.), VSCs (Ventilated Storage Casks), TN NUHOMS (TransNuclear), and others have violated QA/QC standards, as well. In fact, cask QA violations run rampant across industry, enabled by NRC complicity and collusion.

We do not consent to DOE's and industry's cynical attempt to "railroad" the American public on high-risk, high-level radioactive waste transport, by invoking the U.S. Constitution's Interstate Commerce Clause, to ram Mobile Chernobyls down our throats, through our communities. For starters, radioactive waste is not a commodity. It is a forever-deadly poison, with nowhere to go, never belonged on our living planet to begin with. We must stop making it.

ENVIRONMENTAL INJUSTICE/RADIOACTIVE RACISM

We do not consent to the environmental injustice and radioactive racism of yet again targeting low-income Native American communities with the most hazardous substances ever created. From 1987 to 1992, DOE's Nuclear Waste Negotiator wrote to every one of the many hundreds of federally recognized Native American tribes in the U.S., offering relatively large (for the tribes, anyway) sums of money in exchange for them "just to consider" hosting high-level radioactive waste parking lot dumps (the amount of money was exceedingly small, as compared to DOE's annual budgets, and especially as compared to nuclear power industry profit margins). DOE's Nuclear Waste Negotiator focused on 60-some tribes in particular. Mescalero Apache in New Mexico, and Skull Valley Goshutes in Utah, went the furthest. But传统inals like Rufina Marie Laws and Joe Geronimo at Mescalero, and Margene Bullcreek and Sammy Blackbear at Skull Valley, blocked the parking lot dumps in the end, after fierce battles, that left very deep wounds in those communities, for which the nuclear establishment bears responsibility. This resistance was assisted by Grace Thorpe, who not only blocked the parking lot dump targeted at her own Sauk and Fox Reservation in Oklahoma, but assisted environmental allies at reservations across the country to do the same. President Obama honored Thorpe for her anti-dump work, as a "Woman Taking the Lead to Save Our Planet," alongside the likes of Rachel Carson of *Silent Spring* fame, in his March 2009 Women's History Month proclamation. And yet, President Obama's own Blue Ribbon Commission on America's Nuclear Future, as well as his DOE, are yet again including Native American reservations on the target list for parking lot dumps. This most disturbing internal Obama administration contradiction has never been explained.

We do not consent to the targeting of nuclear power plant sites already heavily burdened with irradiated nuclear fuel to become parking lot dumps, importing other reactors' wastes. A study by Oak Ridge Nuclear Lab, for example, has singled out the Dresden nuclear power plant in Morris, IL as a top target for a parking lot dump. But Dresden is already heavily burdened with around a whopping 3,000 metric tons of irradiated nuclear fuel, in the storage pools at three atomic reactors,

in the “overflow parking” dry cask storage installations, as well as the immediately adjacent General Electric-Morris reprocessing facility “wet storage” pool.

SITES CURRENTLY AT THE VERY TOP OF THE TARGET LIST FOR *DE FACTO* PERMANENT PARKING LOT DUMPS

We do not consent to the targeting of DOE sites, already heavily contaminated with radioactivity and burdened with high-level radioactive waste, to become parking lot dumps for the importation of other sites’ or reactors’ wastes. The proposal to open a parking lot dump in Eddy-Lea Counties in extreme southeastern New Mexico, near the Waste Isolation Pilot Project, is a case in point. WIPP is the U.S. national dump-site, in a salt formation 2,000 feet below ground, for trans-uranic contaminated radioactive wastes from the U.S. nuclear weapons complex. Although DOE assured the public that WIPP could not possibly leak in the first 10,000 years, and would leak at most once in the first 200,000 years, WIPP suffered a trans-uranic radioactive waste leak to the environment in year 15 of its operations, on Valentine’s Day, 2014. Nearly two-dozen workers at the surface suffered inhalation doses of ultra-hazardous, alpha-emitting substances, including plutonium. Trans-uranics also fell out downwind, to be further distributed by wind and rain over time. The burst of a single barrel 2,000 feet underground caused the radioactivity release. The root cause of the burst was a chemical reaction due to the mixing of chemically reactive nitrates and lead in with the radioactive wastes, which sparked the ignition. The fire was sustained by the inclusion of organic (meaning fibrous, plant-based) *kitty litter*, meant to absorb liquids. The burst of the single barrel has already shut down WIPP for over two years. DOE estimates the recovery cost at \$500 million; the *L.A. Times* estimates one billion dollars.

We do not consent to a *de facto* permanent parking lot dump targeted at Waste Control Specialists, LLC (WCS) in Andrews County, Texas. WCS applied to NRC for a construction and operation license on April 28, 2016. WCS already dumps all categories of so-called “low” level radioactive waste – Class A, B, and C – into the ground, either directly above, or immediately adjacent to, the Ogallala Aquifer. The Ogallala Aquifer serves as a vital supply of drinking and irrigation water for numerous states on the Great Plains, from Texas to South Dakota. WCS effectively serves as a national dump-site for such radioactive wastes. (Several state environmental agency staffers resigned their career jobs in protest over the outrageous decision to allow WCS to open for “low” level radioactive waste dumping in the first place.) WCS also accepted many scores of barrels from Los Alamos Nuclear Lab in New Mexico, containing the same volatile mix as burst in the WIPP underground in 2014. Already, the potentially bursting barrels have sat out in the hot summer sun at WCS in 2014, 2015, and now 2016, with no end in sight. Heat fueling a chemical reaction, igniting combustibles, and pressure build-up, is the entire problem with the burst risk. If one or more barrels burst at WCS, into the open air of the surface environment, the releases of plutonium and other ultra-hazardous trans-uranic radioactive wastes could be significantly worse, in terms of

downwind and downstream fallout, than the 2014 WIPP release, which originated 2,000 feet below ground, and had to follow a long, circuitous path, through thousands of feet of horizontal burial caverns and tunnels, as well as thousands of feet of vertical ventilation shaft, to reach the surface environment, and fallout over a wide area downwind. The barrels at WCS are *at* the surface environment! WCS accepting these potentially explosive barrels in such a great big hurry in the first place, without even knowing the risks they were getting into, shows what a careless company it is. It cannot and should not be trusted to store high-level radioactive waste, not even temporarily (although “interim” is a deception – the storage would become very long term, perhaps even permanent).

A second company, Advanced Fuel Cycle Initiative (AFCI), is targeting another west TX county for *de facto* permanent storage as well: Culberson. Given the large Hispanic American population in the area, as well as low-income levels, Environmental Justice concerns are raised, yet again, by these proposed west TX parking lot dumps. Much the same can be said regarding the populations in southeastern New Mexico, surrounding the proposed parking lot dump there.

Another parking lot dump target – Savannah River Site (SRS), South Carolina – also raises red flags about disproportionate impacts on people of color and low-income communities. SRS is already a badly radioactively contaminated region, due to decades of nuclear weapons production, and other related nuclear activities (such as mixed oxide plutonium fuel storage and fabrication, civilian high-level radioactive waste reprocessing, etc.). But in addition, the area also “hosts” the adjacent Barnwell, SC “low” level radioactive waste dump – a national dump for decades on end, long leaking. To make matters even worse, the area “hosts” the largest – in terms of number of reactors – nuclear power plant in the U.S., Vogtle. Vogtle Units 1 and 2 have already operated for decades; Units 3 and 4 are currently under construction. The nearby community of Shell Bluff, Georgia is predominantly African American and low-income. Targeting the SRS area with a high-level radioactive waste parking lot dump would just compound the environmental injustice even worse.

HIGH-LEVEL RADIOACTIVE WASTE STORAGE POOLS

We do not consent to the nuclear power industry, with NRC’s blessing, keeping high-level radioactive waste at high-risk, high-density “wet” storage in waste pools, for years or decades into the future. NRC decommissioning regulations, for example, allow pool storage for as long as 60-years post reactor shutdown (so, if the reactor had operated for 60 years, as NRC has permitted time and again, that would mean a total of 120 years of pool storage; NRC is now actively considering allowing 80 years of operations at reactors, which would then add up to 140 years of pool storage.). Nuclear utilities seek to defer dry cask storage costs as far off into the future as possible, by maximizing pool storage for as long as possible. Pools are so densely-packed, they have approached operating reactor core densities. Especially

considering degradation of neutron absorbing structures (such as Boraflex panels) in the pools, this risks potentially deadly and disastrous nuclear chain reactions in the unshielded pool. But high-density storage also risks a sudden cooling water drain down, or a slower motion boil down. Either way, the worst case scenario would be a partial drain down, where irradiated nuclear fuel is partially exposed to air, with remaining pool water below blocking convection air currents, that would at least provide some (and perhaps still not enough) cooling to the overheating exposed irradiated nuclear fuel assemblies. Once exposed to air, the zirconium-clad fuel rods could reach ignition temperature within hours, initiating spontaneous combustion. The chemical reaction would turn exothermic, self-feeding, with the fire burning down the fuel rods, not unlike 4th of July sparklers. The pool would be unapproachable, due to lack of cooling water radiation shielding, with instantaneously deadly doses nearby. Thus, emergency responders would likely be blocked from intervening, making even suicide squad interventions ineffective. The radioactive Cesium-137 releases alone, to the environment, would be catastrophic, due to such a pool fire.

We do not consent to ongoing pool storage, due to pool leaks that, according to NRC in 2013, have already occurred at 13 pools across the U.S. This number can be expected to increase, with worsening age-related degradation at U.S. nuclear power plants. Such pool leaks harm soil, groundwater, surface water, and people and other living things downstream, up the food chain, and down the generations.

We do not consent to pools being dismantled during nuclear power plant decommissioning. Although pools should be off-loaded into hardened on-site storage ASAP (see below), and kept unloaded, the pool structures, systems, and components themselves should be left intact, maintained, and not dismantled or allowed to fall into disrepair. Keeping functional pools extant, albeit empty until needed, would provide an emergency location for failed cask to new replacement cask transfers of irradiated nuclear fuel, with needed radiation shielding. If pools are dismantled at decommissioning nuclear power plant sites (as has been the standard approach thus far), any cask-to-cask transfers would have to be done on an *ad hoc* basis, perhaps under a worsening emergency situation. There is no reason to paint ourselves into such a corner. Pools can be maintained to provide an emergency back-up transfer option. Although they should no longer be used for regular waste storage, as they are too risky.

NEED FOR HARDENED ON-SITE STORAGE (HOSS)

We do not consent to NRC's status quo, allowing nuclear utilities to store irradiated nuclear fuel for as long as 120 years in vulnerable storage pools, and to store high-level radioactive waste in vulnerable dry casks. Many hundreds of environmental, public interest, and social justice groups, representing all 50 states, have called for Hardened On-Site Storage (HOSS) for 15 years. HOSS calls for emptying of vulnerable storage pools into dry casks, but not into vulnerable status quo ones, as

is currently done. This out of the frying pan, into the fire approach is unacceptable and dangerous. Dry casks must be designed and built well, with rigorous QA standards, to last not decades, but centuries. Dry cask storage must be safeguarded against leaks, accidents, natural disasters, and intentional attacks. Such health, safety, security, and environmental protections are not fulfilled by current, vulnerable dry cask storage permitted by NRC.

We do not consent to abandonment of high-level radioactive waste on the shores of the Great Lakes, on the banks of rivers, on the ocean coasts, etc., where it is currently stored. Such abandonment would lead to catastrophic releases of hazardous radioactivity over time, into the drinking water supplies for countless millions of people, into major fisheries, etc. This is especially true under climate chaos scenarios, with extreme weather events at such locations, and rising sea levels, causing major flooding. Many of these very same sites are also vulnerable to earthquakes, tsunamis, and other natural disasters. As environmental groups have long advocated, high-level radioactive wastes should be stored as close to the point of origin as possible, as safely as possible. Certain sites are not appropriate for HOSS, just as they were not appropriate for reactors in the first place. Prairie Island, Minnesota, is a case in point, home to the Prairie Island Indian Community, which never granted its consent to the construction and operation of the two atomic reactors there, nor to the generation and storage of high-level radioactive waste, just hundreds of yards from their community. While wastes need to be relocated from Prairie Island to higher ground, out of the flood plain of the Mississippi River, this should be done in the immediate area, as close as possible, as safely as possible. This is no justification to launch a national Mobile Chernobyl/parking lot dump campaign, creating a whole new set of potentially catastrophic risks elsewhere. In fact, Prairie Island nuclear power plant's owner, Xcel Energy/Northern States Power, has been an infamous leader in such schemes, for decades, including the radioactively racist targeting of PFS at the Skull Valley Goshutes Indian Reservation in Utah.

We do not consent to NRC's science fiction fantasy of non-existent, unfunded "Dry Transfer Systems," and the absurd notion that these Dry Transfer Systems and dry cask storage installations, will be replaced, in their entirety, once every hundred years, whether the storage is at current nuclear power plant sites, or away-from-reactor locations (such as *de facto* permanent parking lot dumps). Dr. Mark Cooper of Vermont Law School has estimated that the first 200 years of irradiated nuclear fuel management in the U.S. – assuming a single repository, and a certain number of centralized interim storage sites – will already cost ratepayers, and/or taxpayers, \$210 to 350 billion – effectively doubling the cost of nuclear-generated electricity, if accounted for (which it never has been, till Dr. Cooper did the calculations on his own initiative, on behalf of an environmental coalition intervening in NRC's Nuclear Waste Confidence/Continued Storage of Spent Nuclear Fuel proceeding). But 200 years is a drop in the ocean, compared to the million years, or longer, high-level radioactive waste remains hazardous. We need to stop making it, by shutting down reactors and replacing them with energy efficiency and renewable sources, such as

wind power and solar photo-voltaic (PV). And we need to figure out how to keep the radioactive waste that already exists, isolated from the living environment, forevermore. As Arnie Gundersen, Chief Engineers of Fairewinds Associates, Inc., has put it: *"We all know that the wind doesn't blow consistently and the sun doesn't shine every day, but the nuclear industry would have you believe that humankind is smart enough to develop techniques to store nuclear waste for a quarter of a million years, but at the same time humankind is so dumb we can't figure out a way to store solar electricity overnight. To me that doesn't make sense."*

Yucca Mountain

We do not consent to the proposed dumpsite for high-level radioactive waste at Yucca Mountain, Nevada. It was wisely cancelled and defunded by the Obama administration and DOE in 2010, as it should have been from the beginning, in the early 1980s. Obama and the Energy Secretaries serving under him declared Yucca "unworkable." Unfolding what "unworkable" means would have to include that the site is not scientifically suitable. It is a very active earthquake zone. It is a volcanic zone. It is saturated with water underground. It has highly corrosive chemistry in the rock, which, combined with the thermal heat of the waste, and the surrounding moisture, would create the perfect storm for burial container failure in a relatively short period of time. If irradiated nuclear fuel were ever to be buried at Yucca, it would leak out massively over time. The catastrophic amounts of hazardous radioactivity would be carried by Yucca's groundwater to points downstream, including the Amargosa Valley agricultural region, one of Nevada's most productive, as well as Death Valley, home to the Timbisha Shoshone Nation.

Unworkable also means that Yucca is Western Shoshone Indian Nation land, by the "peace and friendship" Treaty of Ruby Valley of 1863. The Yucca dump is an unacceptable environmental justice violation.

Unworkable also means that Nevada does not consent to the dump. It never has. Yucca Mountain, Nevada was singled out as the only site in the U.S. for further consideration as a potential dump-site, by the "Screw Nevada bill" of 1987, as it is most commonly referred to. This amendment to the Nuclear Waste Policy Act of 1983 was orchestrated by such powerful state congressional delegations as Texas and Washington State – other Western targets, which also happened to hold the U.S. House Speakership, and U.S. House Majority Leadership. Conspiring with such Eastern states also New Hampshire, these states successfully got themselves off the short list for the country's high-level radioactive waste dump, by "screwing Nevada." This turned a science-based site search comparison, including regional equity (a dump in the West, but also one in the East, where the vast majority of atomic reactors are located to begin with), into a ram it down Nevada's throat case of raw politics (Nevada had only one U.S. Representative in 1987; Texas and Washington, by comparison, had three dozen, and one dozen, respectively.) Despite this, the State

of Nevada has successfully fought tooth and nail, expressing its non-consent to the Yucca dump, for 30 years now.

The Yucca dump is a non-starter, and must be removed from any further consideration.

Nuclear Power and High-Level Radioactive Waste Generation

We do not consent to the generation of irradiated nuclear fuel in the first place. Both the Blue Ribbon Commission on America's Nuclear Future, and now DOE's ONE (Office of Nuclear Energy), have cynically framed the radioactive waste problem as a minor one, to be solved as expeditiously – and seemingly flippantly – as possible, so that nuclear power can go on its merry way, making ever more forever deadly high-level radioactive waste, for which there is still no safe, sound solution, and may never be. As Dr. Judy Johnsrud of Environmental Coalition on Nuclear Power put it, radioactive waste may well be "trans-solutional," a problem we have created that is beyond our ability to solve. And as Beyond Nuclear board member Kay Drey has put it, the mountain of radioactive waste is now more than 70 years high, and we still don't know what to do with the first cupful.

Add your additional idea(s) here! Or use the ones above verbatim, or adapt them to your own words.

How to Submit Public Comments by DOE's July 31, 2016 deadline:

Attend a DOE "Consent-Based Siting" public meeting. Citizens have successfully demanded oral public comment opportunities as part of these public meetings. See <http://www.beyondnuclear.org/radioactive-waste-whatsnew/2016/4/27/four-down-five-to-go-doe-consent-based-siting-meetings.html> for a listing of the remaining public meetings between now and July 31: **Denver May 24; Boston June 2; Tempe June 23; Boise July 14; Minneapolis July 21.**

Email: Responses may be provided by email to [**consentbasedsiting@hq.doe.gov**](mailto:consentbasedsiting@hq.doe.gov). Please **include "Response to IPC" [Invitation for Public Comment] in the subject line.**

Mail: Responses may be provided by mail to the following address: **U.S. Department of Energy, Office of Nuclear Energy, Response to IPC, 1000 Independence Ave SW, Washington, DC 20585.**

FAX: Responses may be faxed to **202-586-0544**. Please **include "Response to IPC" on the FAX cover page.**

Online: Responses will be accepted online at www.regulations.gov. [DOE has here only provided the general website -- **<Consent-Based Siting> must be entered in the search field to get to you to the precise site**, where you can then input your submission.]

For more information, please see:

<http://www.state.nv.us/nucwaste/trans.htm>

<http://www.nirs.org/radwaste/hlwtransport/mobilechernobyl.htm>

<http://www.nirs.org/fukushimafreeways/stopfukushimafreeways.htm>

<http://www.nirs.org/radwaste/atreactorstorage/atreactorhome.htm>

<http://www.nirs.org/radwaste/yucca/yuccahome.htm>

<http://www.nirs.org/radwaste/scullvalley/skullvalley.htm>

<http://www.nirs.org/radwaste/wasteconfidence.htm>

<http://www.nirs.org/radwaste//atreactorstorage/shiranialleg04.htm>

<http://www.nirs.org/radwaste/scullvalley/historynativecommunitiesnuclearwaste06142005.pdf>

<http://www.nirs.org/factsheets/nirsfactshdrycaskvulnerable.pdf>

<http://www.beyondnuclear.org/radioactive-waste/>

<http://www.beyondnuclear.org/centralized-storage/>

<http://www.beyondnuclear.org/on-site-storage/>

<http://www.beyondnuclear.org/waste-transportation/>

<http://www.beyondnuclear.org/yucca-mountain/>

<http://www.beyondnuclear.org/waste-transportation/2016/1/20/doe-undertaking-logistical-planning-for-shipment-of-stranded.html>

<http://www.beyondnuclear.org/home/2012/1/18/a-mountain-of-waste-70-years-high-and-no-solution-in-sight.html>

<http://neis.org/2012-conference/>

<https://sanonofresafety.files.wordpress.com/2011/11/doe-designedtoleak2016-05-3sos.pdf>

<http://nonuclearwasteaqui.org/>

http://ieer.org/wp/wp-content/uploads/2010/03/HOSS_PRINCIPLES_3-23-10x.pdf

<http://www.sric.org/nuclear/wippleak2014.php>

<http://www.indianz.com/News/2015/019111.asp>

Prepared by Kevin Kamps, Radioactive Waste Watchdog at Beyond Nuclear, on May 17, 2016. For additional information, contact Kevin at kevinkamps@beyondnuclear.org.

Consent Based Siting

From: Jang Ik Lee
Sent: Thursday, May 19, 2016 10:29 PM
To: Consent Based Siting
Subject: Requesting a visit from Korea Hydro&Nuclear Power Executives

To whom it may concern,

A greetings from the State University of New York, Korea which is a newly established American University in Songdo, Korea.

We are hosting senior executive training program for Korea Hydro&Nuclear Power (KHNP). As a part of this program, the KHNP executives wish to visit ConsentBasedSiting office to learn and discuss possible cooperation and networking with the initiative.

The KHNP executives will be in Washington D.C. between 21June and 24June, 2016. We would most respectfully request a meeting at your convenient time during their stay. A proposed meeting schedule is (upon your approval):

An overview of DoE and policy issues (20')
Introduction on ConsentBasedSiting initiative (30')
Q&A /discussion with initiative staff and KHNP executives (30')

Thank you for your kind consideration and hope to hear from you soon,

Most sincerely,

Jang Ik Lee Ph. D.
Research Professor, Dept. of Technology & Society
Associate Director, International Learning Institute
The State University of New York, Korea

Consent Based Siting

From: vince rubino
Sent: Thursday, May 19, 2016 8:39 PM
To: Consent Based Siting
Subject: Response to Invitation for Public Comment Consent-Based Siting

Dear government policy maker,

I do not consent to DOE creating parking lot dumps (so-called “centralized” or “consolidated interim storage,” in order to expedite the transfer of title and liability from the nuclear utilities that profited from the generation of high-level radioactive waste, onto the backs of taxpayers.

Shut the reactors down. The risk of radioactive pollution is too large for the reward of cheaper energy.

Sincerely,

Vincent Rubino

Consent Based Siting

From: EK O'Dear
Sent: Thursday, May 19, 2016 4:53 PM
To: Consent Based Siting
Subject: Response to IPC" [Invitation for Public Comment]

We do not consent to DOE rushing into parking lot dumps (so-called “centralized” or “consolidated interim storage,” in order to expedite the transfer of title and liability from the nuclear utilities that profited from the generation of high-level radioactive waste, onto the backs of taxpayers.

Consent Based Siting

From: Bill Holt
Sent: Thursday, May 19, 2016 4:45 PM
To: Consent Based Siting
Subject: Response to IPC

We do not consent to the Senate's approval of \$30 million dollars to transport radioactive waste to so-called CIS (consolidated interim storage) sites. There is no long term strategy for this radioactive waste (which will remain toxic for several human lifetimes), so the interim sites will become permanent. There is no safe way to dispose of radioactive waste so we need to stop it before it starts.

Consent Based Siting

From:
Sent: Thursday, May 19, 2016 3:33 PM
To: Consent Based Siting
Subject: Response to invitation for public comment

Re: "Consent-based siting" of radioactive waste dumps and mobile Chernobyls

We do not consent to DOE rushing into parking lot dumps (so-called “centralized” or “consolidated interim storage,” in order to expedite the transfer of title and liability from the nuclear utilities that profited from the generation of high-level radioactive waste, onto the backs of taxpayers.

We do not consent to “centralized interim storage” facilities becoming de facto permanent surface storage parking lot dumps for high-level radioactive waste.

We do not consent to “games” of radioactive Russian roulette, radioactive hot potato, and radioactive musical chairs being played, when it comes to high-risk, high-level radioactive waste shipments on the roads, rails, and waterways through most states.

We do not consent to the nonsense of shipping high-level radioactive waste to “centralized interim storage,” when permanent disposal could well involve shipping those very same wastes, right back to, or through, where they came from in the first place, heading in the opposite direction.

We do not consent to the nuclear establishment’s “return to sender” schemes with “centralized interim storage.” Had the Private Fuel Storage, LLC (PFS) parking lot dump – its license for construction and operation at the Skull Valley Goshutes Indian Reservation in Utah rubber-stamped by the U.S. Nuclear Regulatory Commission (NRC) a decade ago – actually opened, this nonsensical multiplication of transport risks could have occurred. PFS’s plan was to dump the wastes at Yucca Mountain, Nevada. But its Plan B, should Yucca not open, was to “return to sender.” Yucca has been cancelled. Had the Maine Yankee nuclear power plant, for example, sent its wastes to PFS, they would have been “returned to sender.” More than 50 containers of high-risk, high-level radioactive waste, shipped 5,000 miles round-trip through numerous states, accomplishing absolutely nothing.

We do not consent to DOE’s oldest trick in the book, of trying to divide and conquer, by attempting to play “orphaned” waste communities off against the rest of us – many “stranded” waste communities have stated explicitly that DOE’s de facto permanent parking lot dump shenanigans are done “not in our name.” DOE’s stated purpose for prioritizing “stranded” waste export to parking lot dumps – to free up decommissioned nuclear power plant sites for “unrestricted,” productive “re-use,” is a non-starter. Decommissioning regulations are so inadequate, supposedly “cleaned up” sites are still significantly contaminated with hazardous radioactivity, making re-use of those sites risky for current and future generations.

FLOATING FUKUSHIMAS ON SURFACE WATERS

We do not consent to radioactive waste barge shipments on the lakes and rivers of this country, the fresh drinking water supply for countless millions, nor on the seacoasts.

We do not consent to “Floating Fukushimas.” There are some 26 atomic reactors in the U.S. that lack direct rail access. Yet DOE has chosen the “mostly rail” shipping scenario of high-level radioactive wastes as its preferred policy. Rail shipping containers weigh more than 100 tons. These cannot go down the highways. They are designed to go down railways. But to get these giant, very heavy containers to the nearest railhead, either heavy haul trucks, or barges on waterways, would have to be used. Barges raise the specter of a high-level radioactive waste shipment sinking, with the potential for disastrous releases of high-level radioactive waste into drinking water supplies and fisheries, or even a nuclear chain reaction on the bottom of the surface waterway (there is enough fissile U-235 and Pu-239 present in high-level radioactive waste that, if a critical mass forms in the sinking disaster, and water infiltrates the container, a nuclear chain reaction could be initiated, worsening radioactivity releases to the water body, and making emergency response a suicide mission, given the fatal gamma doses coming off the chain reaction).

We do not consent to high-level radioactive waste shipments on the Great Lakes; one barge sinking could radioactively contaminate the drinking water supply for 40 million people in two countries – eight states in the U.S., and two provinces in Canada – as well as a

large number of Native American First Nations. The Palisades reactor in southwest Michigan, and the Kewaunee and Point Beach nuclear power plants in Wisconsin, were revealed by DOE in 2002 to be potential barge shipment points of origin. The barges would ply the waters of Lake Michigan, headwaters for the rest of the Great Lakes downstream, and the direct drinking water supply for many millions of people, including the Chicago metro region.

We do not consent to high-level radioactive waste barge shipments from the Calvert Cliffs nuclear power plant in Maryland, to the Port of Baltimore on the Chesapeake Bay. A sinking could destroy decades of Bay restoration work in one fell swoop, putting countless watermen out of work forever, and wrecking the Bay's tourism and recreation industries, as well as its fragile, irreplaceable, vibrant, biologically diverse ecosystem.

We do not consent to high-level radioactive waste barge shipments from the Surry nuclear power plant in Virginia, to the Port of Norfolk on the James River. A sinking could ruin this historic river, and also impact the Chesapeake downstream.

We do not consent to Floating Fukushimas from the Salem/Hope Creek nuclear power plant in New Jersey traveling up the already badly polluted Delaware River to the Port of Wilmington.

We do not consent to Floating Fukushimas on the surface waters of New Jersey, New York, and Connecticut, surrounding the metropolitan New York City area, including: from New Jersey's Oyster Creek nuclear power plant, up the Jersey Shore, around Staten Island, New York, to the Port of Newark, New Jersey; from Indian Point nuclear power plant, down the Hudson River, past Manhattan, to the Port of Jersey City, New Jersey; and from the decommissioned Connecticut Yankee nuclear power plant site, down the Connecticut River, onto Long Island Sound, into the Port of New Haven, Connecticut. The very high security risks alone, of intentionally bringing ultra-hazardous high-level radioactive waste, into such close proximity to so many millions of people, is a non-starter.

We do not consent to Floating Fukushimas on Cape Cod Bay, Massachusetts Bay, and Boston Harbor, traveling from Pilgrim nuclear power plant to the Port of Boston.

We do not consent to Floating Fukushimas on the Mississippi River, traveling from the Grand Gulf nuclear power plant to the Port of Vicksburg in Mississippi.

We do not consent to Floating Fukushimas on the Tennessee River, traveling from the Browns Ferry nuclear power plant to Florence, Alabama.

We do not consent to Floating Fukushimas on the Missouri River, traveling from the Cooper nuclear power plant to the Port of Omaha in Nebraska.

We do not consent to Floating Fukushimas on the Pacific Coast, traveling from the Diablo Canyon nuclear power plant to Oxnard/Port of Hueneme in California.

We do not consent to Floating Fukushimas on south Florida's Atlantic Coast, traveling from St. Lucie nuclear power plant to Fort Lauderdale/Port of Everglades and/or from Turkey Point nuclear power plant to the Port of Miami.

We do not consent to Floating Fukushimas on any other surface waters in the U.S., whether they be fresh water drinking water supplies, or salt water fisheries.

MOBILE CHERNOBYLS/DIRTY BOMBS ON WHEELS

We do not consent to high-level radioactive waste truck and train shipments through the heart of major population centers; through the agricultural heartland; on, over, or alongside the drinking water supplies of our nation. Whether due to high-speed crashes, heavy crushing loads, high-temperature/long duration fires, falls from a great height, underwater submersions, collapsing transport infrastructure, or intentional attack with powerful or sophisticated explosives, such as anti-tank missiles or shaped charges, high-level radioactive waste shipments, if breached, could unleash catastrophic amounts of hazardous radioactivity into the environment.

We do not consent to heavy haul trucks (monster truck in front and back, two hundred wheels on the trailer in between, traveling only 3 miles per hour) as an end run attempt to transport very heavy rail casks to the nearest railhead, while attempting to avoid controversial, high-risk barge shipments.

We do not consent to Mobile Chernobyls, or Dirty Bombs on Wheels, traveling by railway through most states in the country under DOE's "mostly rail" shipping scheme.

We do not consent to Mobile Chernobyls, Fukushima Freeways, or Dirty Bombs on Wheels, traveling by highway through most states

in the country, even under DOE's "mostly [but not entirely] rail" shipping scheme. (Casks designed for "legal-weight truck" shipments, as they are called, are significantly smaller and less heavy than rail casks, and would travel on interstate highways, and connecting roadways.)

We do not consent to containers, in violation of quality assurance and quality control (QA/QC) standards, being used to ship high-level radioactive waste. Commonwealth Edison/Exelon whistleblower Oscar Shirani, and NRC Midwest Region dry cask storage inspector, Dr. Ross Landsman, revealed major QA/QC violations with Holtec casks, 15 years ago. They questioned the structural integrity of Holtec casks sitting still, going zero miles per hour, let alone at 60 mph -- or faster -- on the rail lines. NRC has never adequately addressed these QA violations, so we have to assume they have continued right up to the present. Holtec containers have received an NRC rubber-stamp permit not only for on-site storage at more than a third of U.S. reactors, but also for rail/barge transport. To make matters worse, Holtec is the lead partner in the scheme to establish a parking lot dump in New Mexico. (The Private Fuel Storage, LLC parking lot dump targeted at the Skull Valley Goshute Indian Reservation, NRC rubber-stamped but later stopped despite this, would have utilized 4,000 Holtec casks, containing 40,000 metric tons of irradiated nuclear fuel.) Holtec is not the only high-level radioactive waste container with QA/QC failures, however. NAC (Nuclear Assurance Corp.), VSCs (Ventilated Storage Casks), TN NUHOMS (TransNuclear), and others have violated QA/QC standards, as well. In fact, cask QA violations run rampant across industry, enabled by NRC complicity and collusion.

We do not consent to DOE's and industry's cynical attempt to "railroad" the American public on high-risk, high-level radioactive waste transport, by invoking the U.S. Constitution's Interstate Commerce Clause, to ram Mobile Chernobyls down our throats, through our communities. For starters, radioactive waste is not a commodity. It is a forever-deadly poison, with nowhere to go, never belonged on our living planet to begin with. We must stop making it.

ENVIRONMENTAL INJUSTICE/RADIOACTIVE RACISM

We do not consent to the environmental injustice and radioactive racism of yet again targeting low-income Native American communities with the most hazardous substances ever created. From 1987 to 1992, DOE's Nuclear Waste Negotiator wrote to every one of the many hundreds of federally recognized Native American tribes in the U.S., offering relatively large (for the tribes, anyway) sums of money in exchange for them "just to consider" hosting high-level radioactive waste parking lot dumps (the amount of money was exceedingly small, as compared to DOE's annual budgets, and especially as compared to nuclear power industry profit margins). DOE's Nuclear Waste Negotiator focused on 60-some tribes in particular. Mescalero Apache in New Mexico, and Skull Valley Goshutes in Utah, went the furthest. But传统als like Rufina Marie Laws and Joe Geronimo at Mescalero, and Margene Bullcreek and Sammy Blackbear at Skull Valley, blocked the parking lot dumps in the end, after fierce battles, that left very deep wounds in those communities, for which the nuclear establishment bears responsibility. This resistance was assisted by Grace Thorpe, who not only blocked the parking lot dump targeted at her own Sauk and Fox Reservation in Oklahoma, but assisted environmental allies at reservations across the country to do the same. President Obama honored Thorpe for her anti-dump work, as a "Woman Taking the Lead to Save Our Planet," alongside the likes of Rachel Carson of Silent Spring fame, in his March 2009 Women's History Month proclamation. And yet, President Obama's own Blue Ribbon Commission on America's Nuclear Future, as well as his DOE, are yet again including Native American reservations on the target list for parking lot dumps. This most disturbing internal Obama administration contradiction has never been explained.

We do not consent to the targeting of nuclear power plant sites already heavily burdened with irradiated nuclear fuel to become parking lot dumps, importing other reactors' wastes. A study by Oak Ridge Nuclear Lab, for example, has singled out the Dresden nuclear power plant in Morris, IL as a top target for a parking lot dump. But Dresden is already heavily burdened with around a whopping 3,000 metric tons of irradiated nuclear fuel, in the storage pools at three atomic reactors, in the "overflow parking" dry cask storage installations, as well as the immediately adjacent General Electric-Morris reprocessing facility "wet storage" pool.

SITES CURRENTLY AT THE VERY TOP OF THE TARGET LIST FOR DE FACTO PERMANENT PARKING LOT DUMPS

We do not consent to the targeting of DOE sites, already heavily contaminated with radioactivity and burdened with high-level radioactive waste, to become parking lot dumps for the importation of other sites' or reactors' wastes. The proposal to open a parking lot dump in Eddy-Lea Counties in extreme southeastern New Mexico, near the Waste Isolation Pilot Project, is a case in point. WIPP is the U.S. national dump-site, in a salt formation 2,000 feet below ground, for trans-uranic contaminated radioactive wastes from the U.S. nuclear weapons complex. Although DOE assured the public that WIPP could not possibly leak in the first 10,000 years, and would leak at most once in the first 200,000 years, WIPP suffered a trans-uranic radioactive waste leak to the environment in year 15 of its operations, on Valentine's Day, 2014. Nearly two-dozen workers at the surface suffered inhalation doses of ultra-hazardous, alpha-emitting substances, including plutonium. Trans-uramics also fell out downwind, to be further distributed by wind and rain over time. The burst of a single barrel 2,000 feet underground caused the radioactivity release. The root cause of the burst was a chemical reaction due to the mixing of chemically reactive nitrates and lead in with the radioactive wastes, which sparked the ignition. The fire was sustained by the inclusion of organic (meaning fibrous, plant-based) kitty litter, meant to absorb liquids. The burst of the single barrel has already shut down WIPP for over two years. DOE estimates the recovery cost at \$500 million; the L.A. Times estimates one billion dollars.

We do not consent to a de facto permanent parking lot dump targeted at Waste Control Specialists, LLC (WCS) in Andrews County, Texas. WCS applied to NRC for a construction and operation license on April 28, 2016. WCS already dumps all categories of so-called “low” level radioactive waste – Class A, B, and C – into the ground, either directly above, or immediately adjacent to, the Ogallala Aquifer. The Ogallala Aquifer serves as a vital supply of drinking and irrigation water for numerous states on the Great Plains, from Texas to South Dakota. WCS effectively serves as a national dump-site for such radioactive wastes. (Several state environmental agency staffers resigned their career jobs in protest over the outrageous decision to allow WCS to open for “low” level radioactive waste dumping in the first place.) WCS also accepted many scores of barrels from Los Alamos Nuclear Lab in New Mexico, containing the same volatile mix as burst in the WIPP underground in 2014. Already, the potentially bursting barrels have sat out in the hot summer sun at WCS in 2014, 2015, and now 2016, with no end in sight. Heat fueling a chemical reaction, igniting combustibles, and pressure build-up, is the entire problem with the burst risk. If one or more barrels burst at WCS, into the open air of the surface environment, the releases of plutonium and other ultra-hazardous trans-uranic radioactive wastes could be significantly worse, in terms of downwind and downstream fallout, than the 2014 WIPP release, which originated 2,000 feet below ground, and had to follow a long, circuitous path, through thousands of feet of horizontal burial caverns and tunnels, as well as thousands of feet of vertical ventilation shaft, to reach the surface environment, and fallout over a wide area downwind. The barrels at WCS are at the surface environment! WCS accepting these potentially explosive barrels in such a great big hurry in the first place, without even knowing the risks they were getting into, shows what a careless company it is. It cannot and should not be trusted to store high-level radioactive waste, not even temporarily (although “interim” is a deception – the storage would become very long term, perhaps even permanent).

A second company, Advanced Fuel Cycle Initiative (AFCI), is targeting another west TX county for de facto permanent storage as well: Culberson. Given the large Hispanic American population in the area, as well as low-income levels, Environmental Justice concerns are raised, yet again, by these proposed west TX parking lot dumps. Much the same can be said regarding the populations in southeastern New Mexico, surrounding the proposed parking lot dump there.

Another parking lot dump target – Savannah River Site (SRS), South Carolina – also raises red flags about disproportionate impacts on people of color and low-income communities. SRS is already a badly radioactively contaminated region, due to decades of nuclear weapons production, and other related nuclear activities (such as mixed oxide plutonium fuel storage and fabrication, civilian high-level radioactive waste reprocessing, etc.). But in addition, the area also “hosts” the adjacent Barnwell, SC “low” level radioactive waste dump – a national dump for decades on end, long leaking. To make matters even worse, the area “hosts” the largest – in terms of number of reactors – nuclear power plant in the U.S., Vogtle. Vogtle Units 1 and 2 have already operated for decades; Units 3 and 4 are currently under construction. The nearby community of Shell Bluff, Georgia is predominantly African American and low-income. Targeting the SRS area with a high-level radioactive waste parking lot dump would just compound the environmental injustice even worse.

HIGH-LEVEL RADIOACTIVE WASTE STORAGE POOLS

We do not consent to the nuclear power industry, with NRC’s blessing, keeping high-level radioactive waste at high-risk, high-density “wet” storage in waste pools, for years or decades into the future. NRC decommissioning regulations, for example, allow pool storage for as long as 60-years post reactor shutdown (so, if the reactor had operated for 60 years, as NRC has permitted time and again, that would mean a total of 120 years of pool storage; NRC is now actively considering allowing 80 years of operations at reactors, which would then add up to 140 years of pool storage.). Nuclear utilities seek to defer dry cask storage costs as far off into the future as possible, by maximizing pool storage for as long as possible. Pools are so densely-packed, they have approached operating reactor core densities. Especially considering degradation of neutron absorbing structures (such as Boraflex panels) in the pools, this risks potentially deadly and disastrous nuclear chain reactions in the unshielded pool. But high-density storage also risks a sudden cooling water drain down, or a slower motion boil down. Either way, the worst case scenario would be a partial drain down, where irradiated nuclear fuel is partially exposed to air, with remaining pool water below blocking convection air currents, that would at least provide some (and perhaps still not enough) cooling to the overheating exposed irradiated nuclear fuel assemblies. Once exposed to air, the zirconium-clad fuel rods could reach ignition temperature within hours, initiating spontaneous combustion. The chemical reaction would turn exothermic, self-feeding, with the fire burning down the fuel rods, not unlike 4th of July sparklers. The pool would be unapproachable, due to lack of cooling water radiation shielding, with instantaneously deadly doses nearby. Thus, emergency responders would likely be blocked from intervening, making even suicide squad interventions ineffective. The radioactive Cesium-137 releases alone, to the environment, would be catastrophic, due to such a pool fire.

We do not consent to ongoing pool storage, due to pool leaks that, according to NRC in 2013, have already occurred at 13 pools across the U.S. This number can be expected to increase, with worsening age-related degradation at U.S. nuclear power plants. Such pool leaks harm soil, groundwater, surface water, and people and other living things downstream, up the food chain, and down the generations.

We do not consent to pools being dismantled during nuclear power plant decommissioning. Although pools should be off-loaded into hardened on-site storage ASAP (see below), and kept unloaded, the pool structures, systems, and components themselves should be

left intact, maintained, and not dismantled or allowed to fall into disrepair. Keeping functional pools extant, albeit empty until needed, would provide an emergency location for failed cask to new replacement cask transfers of irradiated nuclear fuel, with needed radiation shielding. If pools are dismantled at decommissioning nuclear power plant sites (as has been the standard approach thus far), any cask-to-cask transfers would have to be done on an ad hoc basis, perhaps under a worsening emergency situation. There is no reason to paint ourselves into such a corner. Pools can be maintained to provide an emergency back-up transfer option. Although they should no longer be used for regular waste storage, as they are too risky.

NEED FOR HARDENED ON-SITE STORAGE (HOSS)

We do not consent to NRC's status quo, allowing nuclear utilities to store irradiated nuclear fuel for as long as 120 years in vulnerable storage pools, and to store high-level radioactive waste in vulnerable dry casks. Many hundreds of environmental, public interest, and social justice groups, representing all 50 states, have called for Hardened On-Site Storage (HOSS) for 15 years. HOSS calls for emptying of vulnerable storage pools into dry casks, but not into vulnerable status quo ones, as is currently done. This out of the frying pan, into the fire approach is unacceptable and dangerous. Dry casks must be designed and built well, with rigorous QA standards, to last not decades, but centuries. Dry cask storage must be safeguarded against leaks, accidents, natural disasters, and intentional attacks. Such health, safety, security, and environmental protections are not fulfilled by current, vulnerable dry cask storage permitted by NRC.

We do not consent to abandonment of high-level radioactive waste on the shores of the Great Lakes, on the banks of rivers, on the ocean coasts, etc., where it is currently stored. Such abandonment would lead to catastrophic releases of hazardous radioactivity over time, into the drinking water supplies for countless millions of people, into major fisheries, etc. This is especially true under climate chaos scenarios, with extreme weather events at such locations, and rising sea levels, causing major flooding. Many of these very same sites are also vulnerable to earthquakes, tsunamis, and other natural disasters. As environmental groups have long advocated, high-level radioactive wastes should be stored as close to the point of origin as possible, as safely as possible. Certain sites are not appropriate for HOSS, just as they were not appropriate for reactors in the first place. Prairie Island, Minnesota, is a case in point, home to the Prairie Island Indian Community, which never granted its consent to the construction and operation of the two atomic reactors there, nor to the generation and storage of high-level radioactive waste, just hundreds of yards from their community. While wastes need to be relocated from Prairie Island to higher ground, out of the flood plain of the Mississippi River, this should be done in the immediate area, as close as possible, as safely as possible. This is no justification to launch a national Mobile Chernobyl/parking lot dump campaign, creating a whole new set of potentially catastrophic risks elsewhere. In fact, Prairie Island nuclear power plant's owner, Xcel Energy/Northern States Power, has been an infamous leader in such schemes, for decades, including the radioactively racist targeting of PFS at the Skull Valley Goshutes Indian Reservation in Utah.

We do not consent to NRC's science fiction fantasy of non-existent, unfunded "Dry Transfer Systems," and the absurd notion that these Dry Transfer Systems and dry cask storage installations, will be replaced, in their entirety, once every hundred years, whether the storage is at current nuclear power plant sites, or away-from-reactor locations (such as de facto permanent parking lot dumps). Dr. Mark Cooper of Vermont Law School has estimated that the first 200 years of irradiated nuclear fuel management in the U.S. – assuming a single repository, and a certain number of centralized interim storage sites – will already cost ratepayers, and/or taxpayers, \$210 to 350 billion – effectively doubling the cost of nuclear-generated electricity, if accounted for (which it never has been, till Dr. Cooper did the calculations on his own initiative, on behalf of an environmental coalition intervening in NRC's Nuclear Waste Confidence/Continued Storage of Spent Nuclear Fuel proceeding). But 200 years is a drop in the ocean, compared to the million years, or longer, high-level radioactive waste remains hazardous. We need to stop making it, by shutting down reactors and replacing them with energy efficiency and renewable sources, such as wind power and solar photo-voltaic (PV). And we need to figure out how to keep the radioactive waste that already exists, isolated from the living environment, forevermore. As Arnie Gundersen, Chief Engineers of Fairewinds Associates, Inc., has put it: "We all know that the wind doesn't blow consistently and the sun doesn't shine every day, but the nuclear industry would have you believe that humankind is smart enough to develop techniques to store nuclear waste for a quarter of a million years, but at the same time humankind is so dumb we can't figure out a way to store solar electricity overnight. To me that doesn't make sense."

YUCCA MOUNTAIN

We do not consent to the proposed dumpsite for high-level radioactive waste at Yucca Mountain, Nevada. It was wisely cancelled and defunded by the Obama administration and DOE in 2010, as it should have been from the beginning, in the early 1980s. Obama and the Energy Secretaries serving under him declared Yucca "unworkable." Unfolding what "unworkable" means would have to include that the site is not scientifically suitable. It is a very active earthquake zone. It is a volcanic zone. It is saturated with water underground. It has highly corrosive chemistry in the rock, which, combined with the thermal heat of the waste, and the surrounding moisture, would create the perfect storm for burial container failure in a relatively short period of time. If irradiated nuclear fuel were ever to be buried at Yucca, it would leak out massively over time. The catastrophic amounts of hazardous radioactivity would be carried by Yucca's groundwater to points downstream, including the Amargosa Valley agricultural region, one of Nevada's most productive, as well as Death Valley, home to the Timbisha Shoshone Nation.

Unworkable also means that Yucca is Western Shoshone Indian Nation land, by the “peace and friendship” Treaty of Ruby Valley of 1863. The Yucca dump is an unacceptable environmental justice violation.

Unworkable also means that Nevada does not consent to the dump. It never has. Yucca Mountain, Nevada was singled out as the only site in the U.S. for further consideration as a potential dump-site, by the “Screw Nevada bill” of 1987, as it is most commonly referred to. This amendment to the Nuclear Waste Policy Act of 1983 was orchestrated by such powerful state congressional delegations as Texas and Washington State – other Western targets, which also happened to hold the U.S. House Speakership, and U.S. House Majority Leadership. Conspiring with such Eastern states also New Hampshire, these states successfully got themselves off the short list for the country’s high-level radioactive waste dump, by “screwing Nevada.” This turned a science-based site search comparison, including regional equity (a dump in the West, but also one in the East, where the vast majority of atomic reactors are located to begin with), into a ram it down Nevada’s throat case of raw politics (Nevada had only one U.S. Representative in 1987; Texas and Washington, by comparison, had three dozen, and one dozen, respectively.) Despite this, the State of Nevada has successfully fought tooth and nail, expressing its non-consent to the Yucca dump, for 30 years now.

The Yucca dump is a non-starter, and must be removed from any further consideration.

Nuclear Power and High-Level Radioactive Waste Generation

We do not consent to the generation of irradiated nuclear fuel in the first place. Both the Blue Ribbon Commission on America’s Nuclear Future, and now DOE’s ONE (Office of Nuclear Energy), have cynically framed the radioactive waste problem as a minor one, to be solved as expeditiously – and seemingly flippantly – as possible, so that nuclear power can go on its merry way, making ever more forever deadly high-level radioactive waste, for which there is still no safe, sound solution, and may never be. As Dr. Judy Johnsrud of Environmental Coalition on Nuclear Power put it, radioactive waste may well be “trans-solutional,” a problem we have created that is beyond our ability to solve. And as Beyond Nuclear board member Kay Drey has put it, the mountain of radioactive waste is now more than 70 years high, and we still don’t know what to do with the first cupful.

Thank you,

Vanessa Carbia

Consent Based Siting

From: Catherine Kilgore
Sent: Thursday, May 19, 2016 1:56 PM
To: Consent Based Siting
Subject: Response to IPC [Invitation for Public Comment]

THE RUSH JOB TO *DE FACTO* PERMANENT PARKING LOT DUMPS, FOR ALL THE WRONG REASONS

We do not consent to DOE rushing into parking lot dumps (so-called “centralized” or “consolidated interim storage,” in order to expedite the transfer of title and liability from the nuclear utilities that profited from the generation of high-level radioactive waste, onto the backs of taxpayers.

We do not consent to “centralized interim storage” facilities becoming ***de facto* permanent surface storage parking lot dumps** for high-level radioactive waste.

We do not consent to “games” of radioactive Russian roulette, radioactive hot potato, and radioactive musical chairs being played, when it comes to high-risk, high-level radioactive waste shipments on the roads, rails, and waterways through most states.

We do not consent to the nonsense of shipping high-level radioactive waste to “centralized interim storage,” when permanent disposal could well involve shipping those very same wastes, right back to, or through, where they came from in the first place, heading in the opposite direction.

We do not consent to the nuclear establishment’s “return to sender” schemes with “centralized interim storage.” Had the Private Fuel Storage, LLC (PFS) parking lot dump – its license for construction and operation at the Skull Valley Goshutes Indian Reservation in Utah rubber-stamped by the U.S. Nuclear Regulatory Commission (NRC) a decade ago – actually opened, this nonsensical multiplication of transport risks could have occurred. PFS’s plan was to dump the wastes at Yucca Mountain, Nevada. But its Plan B, should Yucca not open, was to “return to sender.” Yucca has been cancelled. Had the Maine Yankee nuclear power plant, for example, sent its wastes to PFS, they would have been “returned to sender.” More than 50 containers of high-risk, high-level radioactive waste, shipped *5,000 miles round-trip* through numerous states, accomplishing absolutely nothing.

We do not consent to DOE’s oldest trick in the book, of trying to divide and conquer, by attempting to play “orphaned” waste communities off against the rest of us – many “stranded” waste communities have stated explicitly that DOE’s *de facto* permanent parking lot dump shenanigans are done “not in our name.” DOE’s stated purpose for prioritizing “stranded” waste export to parking lot dumps – to free up decommissioned nuclear power plant sites for “unrestricted,” productive “re-use,” is a non-starter.

Decommissioning regulations are so inadequate, supposedly "cleaned up" sites are still significantly contaminated with hazardous radioactivity, making re-use of those sites risky for current and future generations.

FLOATING FUKUSHIMAS ON SURFACE WATERS

We do not consent to radioactive waste barge shipments on the lakes and rivers of this country, the fresh drinking water supply for countless millions, nor on the seacoasts.

We do not consent to "Floating Fukushimas." There are some 26 atomic reactors in the U.S. that lack direct rail access. Yet DOE has chosen the "mostly rail" shipping scenario of high-level radioactive wastes as its preferred policy. Rail shipping containers weigh more than 100 tons. These cannot go down the highways. They are designed to go down railways. But to get these giant, very heavy containers to the nearest railhead, either heavy haul trucks, or barges on waterways, would have to be used. Barges raise the specter of a high-level radioactive waste shipment sinking, with the potential for disastrous releases of high-level radioactive waste into drinking water supplies and fisheries, or even a nuclear chain reaction on the bottom of the surface waterway (there is enough fissile U-235 and Pu-239 present in high-level radioactive waste that, if a critical mass forms in the sinking disaster, and water infiltrates the container, a nuclear chain reaction could be initiated, worsening radioactivity releases to the water body, and making emergency response a suicide mission, given the fatal gamma doses coming off the chain reaction).

We do not consent to high-level radioactive waste shipments on the Great Lakes; one barge sinking could radioactively contaminate the drinking water supply for 40 million people in two countries – eight states in the U.S., and two provinces in Canada – as well as a large number of Native American First Nations. The Palisades reactor in southwest Michigan, and the Kewaunee and Point Beach nuclear power plants in Wisconsin, were revealed by DOE in 2002 to be potential barge shipment points of origin. The barges would ply the waters of Lake Michigan, headwaters for the rest of the Great Lakes downstream, and the direct drinking water supply for many millions of people, including the Chicago metro region.

We do not consent to high-level radioactive waste barge shipments from the Calvert Cliffs nuclear power plant in Maryland, to the Port of Baltimore on the Chesapeake Bay. A sinking could destroy decades of Bay restoration work in one fell swoop, putting countless watermen out of work forever, and wrecking the Bay's tourism and recreation industries, as well as its fragile, irreplaceable, vibrant, biologically diverse ecosystem.

We do not consent to high-level radioactive waste barge shipments from the Surry nuclear power plant in Virginia, to the Port of Norfolk on the James River. A sinking could ruin this historic river, and also impact the Chesapeake downstream.

We do not consent to Floating Fukushimas from the Salem/Hope Creek nuclear power plant in New Jersey traveling up the already badly polluted Delaware River to the Port of Wilmington.

We do not consent to Floating Fukushimas on the surface waters of New Jersey, New York, and Connecticut, surrounding the metropolitan New York City area, including: from New Jersey's Oyster Creek nuclear power plant, up the Jersey Shore, around Staten Island, New York, to the Port of Newark, New Jersey; from Indian Point nuclear power plant, down the Hudson River, past Manhattan, to the Port of Jersey City, New Jersey; and from the decommissioned Connecticut Yankee nuclear power plant site, down the Connecticut River, onto Long Island Sound, into the Port of New Haven, Connecticut. The very high security risks alone, of intentionally bringing ultra-hazardous high-level radioactive waste, into such close proximity to so many millions of people, is a non-starter.

We do not consent to Floating Fukushimas on Cape Cod Bay, Massachusetts Bay, and Boston Harbor, traveling from Pilgrim nuclear power plant to the Port of Boston.

We do not consent to Floating Fukushimas on the Mississippi River, traveling from the Grand Gulf nuclear power plant to the Port of Vicksburg in Mississippi.

We do not consent to Floating Fukushimas on the Tennessee River, traveling from the Browns Ferry nuclear power plant to Florence, Alabama.

We do not consent to Floating Fukushimas on the Missouri River, traveling from the Cooper nuclear power plant to the Port of Omaha in Nebraska.

We do not consent to Floating Fukushimas on the Pacific Coast, traveling from the Diablo Canyon nuclear power plant to Oxnard/Port of Hueneme in California.

We do not consent to Floating Fukushimas on south Florida's Atlantic Coast, traveling from St. Lucie nuclear power plant to Fort Lauderdale/Port of Everglades and/or from Turkey Point nuclear power plant to the Port of Miami.

We do not consent to Floating Fukushimas on any other surface waters in the U.S., whether they be fresh water drinking water supplies, or salt water fisheries.

MOBILE CHERNOBYLS/DIRTY BOMBS ON WHEELS

We do not consent to high-level radioactive waste truck and train shipments through the heart of major population centers; through the agricultural heartland; on, over, or alongside the drinking water supplies of our nation. Whether due to high-speed crashes, heavy crushing loads, high-temperature/long duration fires, falls from a great height, underwater submersions, collapsing transport infrastructure, or intentional attack with powerful or sophisticated explosives, such as anti-tank missiles or shaped charges, high-level radioactive waste shipments, if breached, could unleash catastrophic amounts of hazardous radioactivity into the environment.

We do not consent to heavy haul trucks (monster truck in front and back, two hundred wheels on the trailer in between, traveling only 3 miles per hour) as an end run attempt to transport very heavy rail casks to the nearest railhead, while attempting to avoid controversial, high-risk barge shipments.

We do not consent to Mobile Chernobyls, or Dirty Bombs on Wheels, traveling by railway through most states in the country under DOE's "mostly rail" shipping scheme.

We do not consent to Mobile Chernobyls, Fukushima Freeways, or Dirty Bombs on Wheels, traveling by highway through most states in the country, even under DOE's "mostly [but not entirely] rail" shipping scheme. (Casks designed for "legal-weight truck" shipments, as they are called, are significantly smaller and less heavy than rail casks, and would travel on interstate highways, and connecting roadways.)

We do not consent to containers, in violation of quality assurance and quality control (QA/QC) standards, being used to ship high-level radioactive waste. Commonwealth Edison/Exelon whistleblower Oscar Shirani, and NRC Midwest Region dry cask storage inspector, Dr. Ross Landsman, revealed major QA/QC violations with Holtec casks, 15 years ago. They questioned the structural integrity of Holtec casks *sitting still, going zero miles per hour*, let alone at 60 mph -- or faster -- on the rail lines. NRC has never adequately addressed these QA violations, so we have to assume they have continued right up to the present. Holtec containers have received an NRC rubber-stamp permit not only for on-site storage at more than a third of U.S. reactors, but also for rail/barge transport. To make matters worse, Holtec is the lead partner in the scheme to establish a parking lot dump in New Mexico. (The Private Fuel Storage, LLC parking lot dump targeted at the Skull Valley Goshute Indian Reservation, NRC rubber-stamped but later stopped despite this, would have utilized 4,000 Holtec casks, containing 40,000 metric tons of irradiated nuclear fuel.) Holtec is not the only high-level radioactive waste container with QA/QC failures, however. NAC (Nuclear Assurance Corp.), VSCs (Ventilated Storage Casks), TN NUHOMS (TransNuclear), and others have violated QA/QC standards, as well. In fact, cask QA violations run rampant across industry, enabled by NRC complicity and collusion.

We do not consent to DOE's and industry's cynical attempt to "railroad" the American public on high-risk, high-level radioactive waste transport, by invoking the U.S. Constitution's Interstate Commerce Clause, to ram Mobile Chernobyls down our throats, through our communities. For starters, radioactive waste is not a commodity. It is a forever-deadly poison, with nowhere to go, never belonged on our living planet to begin with. We must stop making it.

ENVIRONMENTAL INJUSTICE/RADIOACTIVE RACISM

We do not consent to the environmental injustice and radioactive racism of yet again targeting low-income Native American communities with the most hazardous substances ever created. From 1987 to 1992, DOE's Nuclear Waste Negotiator wrote to every one of the many hundreds of federally recognized Native American tribes in the U.S., offering relatively large (for the tribes, anyway) sums of money in exchange for them "just to consider" hosting high-level radioactive waste parking lot dumps (the amount of money was exceedingly small, as compared to DOE's annual budgets, and especially as compared to nuclear power industry profit margins). DOE's Nuclear Waste Negotiator focused on 60-some tribes in particular. Mescalero Apache in New Mexico, and Skull Valley Goshutes in Utah, went the furthest. But传统 like Rufina Marie Laws and

Joe Geronimo at Mescalero, and Margene Bullcreek and Sammy Blackbear at Skull Valley, blocked the parking lot dumps in the end, after fierce battles, that left very deep wounds in those communities, for which the nuclear establishment bears responsibility. This resistance was assisted by Grace Thorpe, who not only blocked the parking lot dump targeted at her own Sauk and Fox Reservation in Oklahoma, but assisted environmental allies at reservations across the country to do the same. President Obama honored Thorpe for her anti-dump work, as a "Woman Taking the Lead to Save Our Planet," alongside the likes of Rachel Carson of *Silent Spring* fame, in his March 2009 Women's History Month proclamation. And yet, President Obama's own Blue Ribbon Commission on America's Nuclear Future, as well as his DOE, are yet again including Native American reservations on the target list for parking lot dumps. This most disturbing internal Obama administration contradiction has never been explained.

We do not consent to the targeting of nuclear power plant sites already heavily burdened with irradiated nuclear fuel to become parking lot dumps, importing other reactors' wastes. A study by Oak Ridge Nuclear Lab, for example, has singled out the Dresden nuclear power plant in Morris, IL as a top target for a parking lot dump. But Dresden is already heavily burdened with around a whopping 3,000 metric tons of irradiated nuclear fuel, in the storage pools at three atomic reactors, in the "overflow parking" dry cask storage installations, as well as the immediately adjacent General Electric-Morris reprocessing facility "wet storage" pool.

SITES CURRENTLY AT THE VERY TOP OF THE TARGET LIST FOR *DE FACTO* PERMANENT PARKING LOT DUMPS

We do not consent to the targeting of DOE sites, already heavily contaminated with radioactivity and burdened with high-level radioactive waste, to become parking lot dumps for the importation of other sites' or reactors' wastes. The proposal to open a parking lot dump in Eddy-Lea Counties in extreme southeastern New Mexico, near the Waste Isolation Pilot Project, is a case in point. WIPP is the U.S. national dump-site, in a salt formation 2,000 feet below ground, for trans-uranic contaminated radioactive wastes from the U.S. nuclear weapons complex. Although DOE assured the public that WIPP could not possibly leak in the first 10,000 years, and would leak at most once in the first 200,000 years, WIPP suffered a trans-uranic radioactive waste leak to the environment in year 15 of its operations, on Valentine's Day, 2014. Nearly two-dozen workers at the surface suffered inhalation doses of ultra-hazardous, alpha-emitting substances, including plutonium. Trans-uranics also fell out downwind, to be further distributed by wind and rain over time. The burst of a single barrel 2,000 feet underground caused the radioactivity release. The root cause of the burst was a chemical reaction due to the mixing of chemically reactive nitrates and lead in with the radioactive wastes, which sparked the ignition. The fire was sustained by the inclusion of organic (meaning fibrous, plant-based) *kitty litter*, meant to absorb liquids. The burst of the single barrel has already shut down WIPP for over two years. DOE estimates the recovery cost at \$500 million; the *L.A. Times* estimates one billion dollars.

We do not consent to a *de facto* permanent parking lot dump targeted at Waste Control Specialists, LLC (WCS) in Andrews County, Texas. WCS applied to NRC for a construction and operation license on April 28, 2016. WCS already dumps all categories

of so-called “low” level radioactive waste – Class A, B, and C – into the ground, either directly above, or immediately adjacent to, the Ogallala Aquifer. The Ogallala Aquifer serves as a vital supply of drinking and irrigation water for numerous states on the Great Plains, from Texas to South Dakota. WCS effectively serves as a national dump-site for such radioactive wastes. (Several state environmental agency staffers resigned their career jobs in protest over the outrageous decision to allow WCS to open for “low” level radioactive waste dumping in the first place.) WCS also accepted many scores of barrels from Los Alamos Nuclear Lab in New Mexico, containing the same volatile mix as burst in the WIPP underground in 2014. Already, the potentially bursting barrels have sat out in the hot summer sun at WCS in 2014, 2015, and now 2016, with no end in sight. Heat fueling a chemical reaction, igniting combustibles, and pressure build-up, is the entire problem with the burst risk. If one or more barrels burst at WCS, into the open air of the surface environment, the releases of plutonium and other ultra-hazardous trans-uranic radioactive wastes could be significantly worse, in terms of downwind and downstream fallout, than the 2014 WIPP release, which originated 2,000 feet below ground, and had to follow a long, circuitous path, through thousands of feet of horizontal burial caverns and tunnels, as well as thousands of feet of vertical ventilation shaft, to reach the surface environment, and fallout over a wide area downwind. The barrels at WCS are *at the surface environment!* WCS accepting these potentially explosive barrels in such a great big hurry in the first place, without even knowing the risks they were getting into, shows what a careless company it is. It cannot and should not be trusted to store high-level radioactive waste, not even temporarily (although “interim” is a deception – the storage would become very long term, perhaps even permanent).

A second company, Advanced Fuel Cycle Initiative (AFCI), is targeting another west TX county for *de facto* permanent storage as well: Culberson. Given the large Hispanic American population in the area, as well as low-income levels, Environmental Justice concerns are raised, yet again, by these proposed west TX parking lot dumps. Much the same can be said regarding the populations in southeastern New Mexico, surrounding the proposed parking lot dump there.

Another parking lot dump target – Savannah River Site (SRS), South Carolina – also raises red flags about disproportionate impacts on people of color and low-income communities. SRS is already a badly radioactively contaminated region, due to decades of nuclear weapons production, and other related nuclear activities (such as mixed oxide plutonium fuel storage and fabrication, civilian high-level radioactive waste reprocessing, etc.). But in addition, the area also “hosts” the adjacent Barnwell, SC “low” level radioactive waste dump – a national dump for decades on end, long leaking. To make matters even worse, the area “hosts” the largest – in terms of number of reactors – nuclear power plant in the U.S., Vogtle. Vogtle Units 1 and 2 have already operated for decades; Units 3 and 4 are currently under construction. The nearby community of Shell Bluff, Georgia is predominantly African American and low-income. Targeting the SRS area with a high-level radioactive waste parking lot dump would just compound the environmental injustice even worse.

HIGH-LEVEL RADIOACTIVE WASTE STORAGE POOLS

We do not consent to the nuclear power industry, with NRC's blessing, keeping high-level radioactive waste at high-risk, high-density "wet" storage in waste pools, for years or decades into the future. NRC decommissioning regulations, for example, allow pool storage for as long as 60-years post reactor shutdown (so, if the reactor had operated for 60 years, as NRC has permitted time and again, that would mean a total of 120 years of pool storage; NRC is now actively considering allowing 80 years of operations at reactors, which would then add up to 140 years of pool storage.). Nuclear utilities seek to defer dry cask storage costs as far off into the future as possible, by maximizing pool storage for as long as possible. Pools are so densely-packed, they have approached operating reactor core densities. Especially considering degradation of neutron absorbing structures (such as Boraflex panels) in the pools, this risks potentially deadly and disastrous nuclear chain reactions in the unshielded pool. But high-density storage also risks a sudden cooling water drain down, or a slower motion boil down. Either way, the worst case scenario would be a partial drain down, where irradiated nuclear fuel is partially exposed to air, with remaining pool water below blocking convection air currents, that would at least provide some (and perhaps still not enough) cooling to the overheating exposed irradiated nuclear fuel assemblies. Once exposed to air, the zirconium-clad fuel rods could reach ignition temperature within hours, initiating spontaneous combustion. The chemical reaction would turn exothermic, self-feeding, with the fire burning down the fuel rods, not unlike 4th of July sparklers. The pool would be unapproachable, due to lack of cooling water radiation shielding, with instantaneously deadly doses nearby. Thus, emergency responders would likely be blocked from intervening, making even suicide squad interventions ineffective. The radioactive Cesium-137 releases alone, to the environment, would be catastrophic, due to such a pool fire.

We do not consent to ongoing pool storage, due to pool leaks that, according to NRC in 2013, have already occurred at 13 pools across the U.S. This number can be expected to increase, with worsening age-related degradation at U.S. nuclear power plants. Such pool leaks harm soil, groundwater, surface water, and people and other living things downstream, up the food chain, and down the generations.

We do not consent to pools being dismantled during nuclear power plant decommissioning. Although pools should be off-loaded into hardened on-site storage ASAP (see below), and kept unloaded, the pool structures, systems, and components themselves should be left intact, maintained, and not dismantled or allowed to fall into disrepair. Keeping functional pools extant, albeit empty until needed, would provide an emergency location for failed cask to new replacement cask transfers of irradiated nuclear fuel, with needed radiation shielding. If pools are dismantled at decommissioning nuclear power plant sites (as has been the standard approach thus far), any cask-to-cask transfers would have to be done on an *ad hoc* basis, perhaps under a worsening emergency situation. There is no reason to paint ourselves into such a corner. Pools can be maintained to provide an emergency back-up transfer option. Although they should no longer be used for regular waste storage, as they are too risky.

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We do not consent to abandonment of high-level radioactive waste on the shores of the Great Lakes, on the banks of rivers, on the ocean coasts, etc., where it is currently stored. Such abandonment would lead to catastrophic releases of hazardous radioactivity over time, into the drinking water supplies for countless millions of people, into major fisheries, etc. This is especially true under climate chaos scenarios, with extreme weather events at such locations, and rising sea levels, causing major flooding. Many of these very same sites are also vulnerable to earthquakes, tsunamis, and other natural disasters. As environmental groups have long advocated, high-level radioactive wastes should be stored as close to the point of origin as possible, as safely as possible. Certain sites are not appropriate for HOSS, just as they were not appropriate for reactors in the first place. Prairie Island, Minnesota, is a case in point, home to the Prairie Island Indian Community, which never granted its consent to the construction and operation of the two atomic reactors there, nor to the generation and storage of high-level radioactive waste, just hundreds of yards from their community. While wastes need to be relocated from Prairie Island to higher ground, out of the flood plain of the Mississippi River, this should be done in the immediate area, as close as possible, as safely as possible. This is no justification to launch a national Mobile Chernobyl/parking lot dump campaign, creating a whole new set of potentially catastrophic risks elsewhere. In fact, Prairie Island nuclear power plant's owner, Xcel Energy/Northern States Power, has been an infamous leader in such schemes, for decades, including the radioactively racist targeting of PFS at the Skull Valley Goshutes Indian Reservation in Utah.

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with energy efficiency and renewable sources, such as wind power and solar photovoltaic (PV). And we need to figure out how to keep the radioactive waste that already exists, isolated from the living environment, forevermore. As Arnie Gundersen, Chief Engineers of Fairewinds Associates, Inc., has put it: *"We all know that the wind doesn't blow consistently and the sun doesn't shine every day, but the nuclear industry would have you believe that humankind is smart enough to develop techniques to store nuclear waste for a quarter of a million years, but at the same time humankind is so dumb we can't figure out a way to store solar electricity overnight. To me that doesn't make sense."*

Yucca Mountain

We do not consent to the proposed dumpsite for high-level radioactive waste at Yucca Mountain, Nevada. It was wisely cancelled and defunded by the Obama administration and DOE in 2010, as it should have been from the beginning, in the early 1980s. Obama and the Energy Secretaries serving under him declared Yucca "unworkable." Unfolding what "unworkable" means would have to include that the site is not scientifically suitable. It is a very active earthquake zone. It is a volcanic zone. It is saturated with water underground. It has highly corrosive chemistry in the rock, which, combined with the thermal heat of the waste, and the surrounding moisture, would create the perfect storm for burial container failure in a relatively short period of time. If irradiated nuclear fuel were ever to be buried at Yucca, it would leak out massively over time. The catastrophic amounts of hazardous radioactivity would be carried by Yucca's groundwater to points downstream, including the Amargosa Valley agricultural region, one of Nevada's most productive, as well as Death Valley, home to the Timbisha Shoshone Nation.

Unworkable also means that Yucca is Western Shoshone Indian Nation land, by the "peace and friendship" Treaty of Ruby Valley of 1863. The Yucca dump is an unacceptable environmental justice violation.

Unworkable also means that Nevada does not consent to the dump. It never has. Yucca Mountain, Nevada was singled out as the only site in the U.S. for further consideration as a potential dump-site, by the "Screw Nevada bill" of 1987, as it is most commonly referred to. This amendment to the Nuclear Waste Policy Act of 1983 was orchestrated by such powerful state congressional delegations as Texas and Washington State – other Western targets, which also happened to hold the U.S. House Speakership, and U.S. House Majority Leadership. Conspiring with such Eastern states also New Hampshire, these states successfully got themselves off the short list for the country's high-level radioactive waste dump, by "screwing Nevada." This turned a science-based site search comparison, including regional equity (a dump in the West, but also one in the East, where the vast majority of atomic reactors are located to begin with), into a ram it down Nevada's throat case of raw politics (Nevada had only one U.S. Representative in 1987; Texas and Washington, by comparison, had three dozen, and one dozen, respectively.) Despite this, the State of Nevada has successfully fought tooth and nail, expressing its non-consent to the Yucca dump, for 30 years now.

The Yucca dump is a non-starter, and must be removed from any further consideration.

Nuclear Power and High-Level Radioactive Waste Generation

We do not consent to the generation of irradiated nuclear fuel in the first place. Both the Blue Ribbon Commission on America's Nuclear Future, and now DOE's ONE (Office of Nuclear Energy), have cynically framed the radioactive waste problem as a minor one, to be solved as expeditiously – and seemingly flippantly – as possible, so that nuclear power can go on its merry way, making ever more forever deadly high-level radioactive waste, for which there is still no safe, sound solution, and may never be. As Dr. Judy Johnsrud of Environmental Coalition on Nuclear Power put it, radioactive waste may well be "trans-solutional," a problem we have created that is beyond our ability to solve. And as Beyond Nuclear board member Kay Drey has put it, the mountain of radioactive waste is now more than 70 years high, and we still don't know what to do with the first cupful.

I do not consent to the further contamination of this planet and it's people with more hazardous nuclear material that is improperly used and stored. Enough is enough. We need to move away from nuclear, coal and petroleum based energy and move toward green renewable energy. The nuclear waste we currently have needs to be stored in a responsible, safe manner, away from populated areas, that will not endanger life on this planet.

Sincerely,

Catherine Kilgore

Consent Based Siting

From: Thursday, May 19, 2016 1:54 PM
Sent: Consent Based Siting
To:
Subject: "Response to IPC" [Invitation for Public Comment]

I would like to submit my comment to:

Public Comments re: DOE's "Consent-Based Siting" of Radioactive Waste Dumps

However, I find that Beyond Nuclear's suggested comments express more fully and clearly what I would like to express than I could do, so I am copying theirs and adopting them as my own.

Sincerely,

***Lynn Biddle
Swampscott, MA***

We do not consent!

THE RUSH JOB TO DE FACTO PERMANENT PARKING LOT DUMPS, FOR ALL THE WRONG REASONS

We do not consent to DOE rushing into parking lot dumps (so-called “centralized” or “consolidated interim storage,” in order to expedite the transfer of title and liability from the nuclear utilities that profited from the generation of high-level radioactive waste, onto the backs of taxpayers.

We do not consent to “centralized interim storage” facilities becoming *de facto* permanent surface storage parking lot dumps for high-level radioactive waste.

We do not consent to “games” of radioactive Russian roulette, radioactive hot potato, and radioactive musical chairs being played, when it comes to high-risk, high-level radioactive waste shipments on the roads, rails, and waterways through most states.

We do not consent to the nonsense of shipping high-level radioactive waste to “centralized interim storage,” when permanent disposal could well involve shipping those very same wastes, right back to, or through, where they came from in the first place, heading in the opposite direction.

We do not consent to the nuclear establishment’s “return to sender” schemes with “centralized interim storage.” Had the Private Fuel Storage, LLC (PFS) parking lot dump – its license for construction and operation at the Skull Valley Goshutes Indian Reservation in Utah rubber-stamped by the U.S. Nuclear Regulatory Commission (NRC) a decade ago – actually opened, this nonsensical multiplication of transport risks could have occurred. PFS’s plan was to dump the wastes at Yucca Mountain, Nevada. But its Plan B, should Yucca not open, was to “return to sender.” Yucca has been cancelled. Had the Maine Yankee nuclear power plant, for example, sent its wastes to PFS, they would have been “returned to sender.” More than 50 containers of high-risk, high-level radioactive waste, shipped 5,000 miles round-trip through numerous states, accomplishing absolutely nothing.

We do not consent to DOE’s oldest trick in the book, of trying to divide and conquer, by attempting to play “orphaned” waste communities off against the rest of us – many “stranded” waste communities have stated explicitly that DOE’s *de facto* permanent parking lot dump shenanigans are done “not in our name.” DOE’s stated purpose for prioritizing “stranded” waste export to parking lot dumps – to free up decommissioned nuclear power plant sites for “unrestricted,” productive “re-use,” is a non-starter. Decommissioning regulations are so inadequate, supposedly “cleaned up” sites are still significantly contaminated with hazardous radioactivity, making re-use of those sites risky for current and future generations.

FLOATING FUKUSHIMAS ON SURFACE WATERS

We do not consent to radioactive waste barge shipments on the lakes and rivers of this country, the fresh drinking water supply for countless millions, nor on the seacoasts.

We do not consent to “Floating Fukushimas.” There are some 26 atomic reactors in the U.S. that lack direct rail access. Yet DOE has chosen the “mostly rail” shipping scenario of high-level radioactive wastes as its preferred policy. Rail shipping containers weigh more than 100 tons. These

cannot go down the highways. They are designed to go down railways. But to get these giant, very heavy containers to the nearest railhead, either heavy haul trucks, or barges on waterways, would have to be used. Barges raise the specter of a high-level radioactive waste shipment sinking, with the potential for disastrous releases of high-level radioactive waste into drinking water supplies and fisheries, or even a nuclear chain reaction on the bottom of the surface waterway (there is enough fissile U-235 and Pu-239 present in high-level radioactive waste that, if a critical mass forms in the sinking disaster, and water infiltrates the container, a nuclear chain reaction could be initiated, worsening radioactivity releases to the water body, and making emergency response a suicide mission, given the fatal gamma doses coming off the chain reaction).

We do not consent to high-level radioactive waste shipments on the Great Lakes; one barge sinking could radioactively contaminate the drinking water supply for 40 million people in two countries – eight states in the U.S., and two provinces in Canada – as well as a large number of Native American First Nations. The Palisades reactor in southwest Michigan, and the Keweenaw and Point Beach nuclear power plants in Wisconsin, were revealed by DOE in 2002 to be potential barge shipment points of origin. The barges would ply the waters of Lake Michigan, headwaters for the rest of the Great Lakes downstream, and the direct drinking water supply for many millions of people, including the Chicago metro region.

We do not consent to high-level radioactive waste barge shipments from the Calvert Cliffs nuclear power plant in Maryland, to the Port of Baltimore on the Chesapeake Bay. A sinking could destroy decades of Bay restoration work in one fell swoop, putting countless watermen out of work forever, and wrecking the Bay's tourism and recreation industries, as well as its fragile, irreplaceable, vibrant, biologically diverse ecosystem.

We do not consent to high-level radioactive waste barge shipments from the Surry nuclear power plant in Virginia, to the Port of Norfolk on the James River. A sinking could ruin this historic river, and also impact the Chesapeake downstream.

We do not consent to Floating Fukushimas from the Salem/Hope Creek nuclear power plant in New Jersey traveling up the already badly polluted Delaware River to the Port of Wilmington.

We do not consent to Floating Fukushimas on the surface waters of New Jersey, New York, and Connecticut, surrounding the metropolitan New York City area, including: from New Jersey's Oyster Creek nuclear power plant, up the Jersey Shore, around Staten Island, New York, to the Port of Newark, New Jersey; from Indian Point nuclear power plant, down the Hudson River, past Manhattan, to the Port of Jersey City, New Jersey; and from the decommissioned Connecticut Yankee nuclear power plant site, down the Connecticut River, onto Long Island Sound, into the Port of New Haven, Connecticut. The very high security risks alone, of intentionally bringing ultra-hazardous high-level radioactive waste, into such close proximity to so many millions of people, is a non-starter.

We do not consent to Floating Fukushimas on Cape Cod Bay, Massachusetts Bay, and Boston Harbor, traveling from Pilgrim nuclear power plant to the Port of Boston.

We do not consent to Floating Fukushimas on the Mississippi River, traveling from the Grand Gulf nuclear power plant to the Port of Vicksburg in Mississippi.

We do not consent to Floating Fukushimas on the Tennessee River, traveling from the Browns Ferry nuclear power plant to Florence, Alabama.

We do not consent to Floating Fukushimas on the Missouri River, traveling from the Cooper nuclear power plant to the Port of Omaha in Nebraska.

We do not consent to Floating Fukushimas on the Pacific Coast, traveling from the Diablo Canyon nuclear power plant to Oxnard/Port of Hueneme in California.

We do not consent to Floating Fukushimas on south Florida's Atlantic Coast, traveling from St. Lucie nuclear power plant to Fort Lauderdale/Port of Everglades and/or from Turkey Point nuclear power plant to the Port of Miami.

We do not consent to Floating Fukushimas on any other surface waters in the U.S., whether they be fresh water drinking water supplies, or salt water fisheries.

MOBILE CHERNOBYS/DIRTY BOMBS ON WHEELS

We do not consent to high-level radioactive waste truck and train shipments through the heart of major population centers; through the agricultural heartland; on, over, or alongside the drinking water supplies of our nation. Whether due to high-speed crashes, heavy crushing loads, high-temperature/long duration fires, falls from a great height, underwater submersion, collapsing transport infrastructure, or intentional attack with powerful or sophisticated explosives, such as anti-tank missiles or shaped charges, high-level radioactive waste shipments, if breached, could unleash catastrophic amounts of hazardous radioactivity into the environment.

We do not consent to heavy haul trucks (monster truck in front and back, two hundred wheels on the trailer in between, traveling only 3 miles per hour) as an end run attempt to transport very heavy rail casks to the nearest railhead, while attempting to avoid controversial, high-risk barge shipments.

We do not consent to Mobile Chernobys, or Dirty Bombs on Wheels, traveling by railway through most states in the country under DOE's "mostly rail" shipping scheme.

We do not consent to Mobile Chernobys, Fukushima Freeways, or Dirty Bombs on Wheels, traveling by highway through most states in the country, even under DOE's "mostly [but not entirely] rail" shipping scheme. (Casks designed for "legal-weight truck" shipments, as they are called, are significantly smaller and less heavy than rail casks, and would travel on interstate highways, and connecting roadways.)

We do not consent to containers, in violation of quality assurance and quality control (QA/QC) standards, being used to ship high-level radioactive waste. Commonwealth Edison/Exelon whistleblower Oscar Shirani, and NRC Midwest Region dry cask storage inspector, Dr. Ross Landsman, revealed major QA/QC violations with Holtec casks, 15 years ago. They questioned the structural integrity of Holtec casks *sitting still, going zero miles per hour*, let alone at 60 mph -- or faster -- on the rail lines. NRC has never adequately addressed these QA violations, so we have to assume they have continued right up to the present. Holtec containers have received an NRC rubber-stamp permit not only for on-site storage at more than a third of U.S. reactors, but also for rail/barge transport. To make matters worse, Holtec is the lead partner in the scheme to establish a parking lot dump in New Mexico. (The Private Fuel Storage, LLC parking lot dump targeted at the Skull Valley Goshute Indian Reservation, NRC rubber-stamped but later stopped despite this, would have utilized 4,000 Holtec casks, containing 40,000 metric tons of irradiated nuclear fuel.) Holtec is not the only high-level radioactive waste container with QA/QC failures, however. NAC (Nuclear Assurance Corp.), VSCs (Ventilated Storage Casks), TN NUHOMS (TransNuclear), and others have violated QA/QC standards, as well. In fact, cask QA violations run rampant across industry, enabled by NRC complicity and collusion.

We do not consent to DOE's and industry's cynical attempt to "railroad" the American public on high-risk, high-level radioactive waste transport, by invoking the U.S. Constitution's Interstate Commerce Clause, to ram Mobile Chernobyls down our throats, through our communities. For starters, radioactive waste is not a commodity. It is a forever-deadly poison, with nowhere to go, never belonged on our living planet to begin with. We must stop making it.

ENVIRONMENTAL INJUSTICE/RADIOACTIVE RACISM

We do not consent to the environmental injustice and radioactive racism of yet again targeting low-income Native American communities with the most hazardous substances ever created. From 1987 to 1992, DOE's Nuclear Waste Negotiator wrote to every one of the many hundreds of federally recognized Native American tribes in the U.S., offering relatively large (for the tribes, anyway) sums of money in exchange for them "just to consider" hosting high-level radioactive waste parking lot dumps (the amount of money was exceedingly small, as compared to DOE's annual budgets, and especially as compared to nuclear power industry profit margins). DOE's Nuclear Waste Negotiator focused on 60-some tribes in particular. Mescalero Apache in New Mexico, and Skull Valley Goshutes in Utah, went the furthest. But traditionalists like Rufina Marie Laws and Joe Geronimo at Mescalero, and Margene Bullcreek and Sammy Blackbear at Skull Valley, blocked the parking lot dumps in the end, after fierce battles, that left very deep wounds in those communities, for which the nuclear establishment bears responsibility. This resistance was assisted by Grace Thorpe, who not only blocked the parking lot dump targeted at her own Sauk and Fox Reservation in Oklahoma, but assisted environmental allies at reservations across the country to do the same. President Obama honored Thorpe for her anti-dump work, as a "Woman Taking the Lead to Save Our Planet," alongside the likes of Rachel Carson of *Silent Spring* fame, in his March 2009 Women's History Month proclamation. And yet, President Obama's own Blue Ribbon Commission on America's Nuclear Future, as well as his DOE, are yet again including Native American reservations on the target list for parking lot dumps. This most disturbing internal Obama administration contradiction has never been explained.

We do not consent to the targeting of nuclear power plant sites already heavily burdened with irradiated nuclear fuel to become parking lot dumps, importing other reactors' wastes. A study by Oak Ridge Nuclear Lab, for example, has singled out the Dresden nuclear power plant in Morris, IL as a top target for a parking lot dump. But Dresden is already heavily burdened with around a whopping 3,000 metric tons of irradiated nuclear fuel, in the storage pools at three atomic reactors, in the "overflow parking" dry cask storage installations, as well as the immediately adjacent General Electric-Morris reprocessing facility "wet storage" pool.

SITES CURRENTLY AT THE VERY TOP OF THE TARGET LIST FOR *DE FACTO* PERMANENT PARKING LOT DUMPS

We do not consent to the targeting of DOE sites, already heavily contaminated with radioactivity and burdened with high-level radioactive waste, to become parking lot dumps for the importation of other sites' or reactors' wastes. The proposal to open a parking lot dump in Eddy-Lea Counties in extreme southeastern New Mexico, near the Waste Isolation Pilot Project, is a case in point. WIPP is the U.S. national dump-site, in a salt formation 2,000 feet below ground, for trans-uranic contaminated radioactive wastes from the U.S. nuclear weapons complex. Although DOE assured the public that WIPP could not possibly leak in the first 10,000 years, and would leak at most once in the first 200,000 years, WIPP suffered a trans-uranic radioactive waste leak to the environment in year 15 of its operations, on Valentine's Day, 2014. Nearly two-dozen workers at the surface suffered inhalation doses of ultra-hazardous, alpha-emitting substances, including plutonium. Trans-uramics also fell out downwind, to be further distributed by wind and rain over time. The burst of a single barrel 2,000 feet underground caused the radioactivity release. The root cause of the burst was a chemical reaction due to the mixing of chemically reactive nitrates and lead in with the radioactive wastes, which sparked the ignition. The fire was sustained by the inclusion of organic (meaning fibrous, plant-based) *kitty litter*, meant to absorb liquids. The burst of the single barrel has already shut down WIPP for over two years. DOE estimates the recovery cost at \$500 million; the *L.A. Times* estimates one billion dollars.

We do not consent to a *de facto* permanent parking lot dump targeted at Waste Control Specialists, LLC (WCS) in Andrews County, Texas. WCS applied to NRC for a construction and operation license on April 28, 2016. WCS already dumps all categories of so-called "low" level radioactive waste – Class A, B, and C – into the ground, either directly above, or immediately adjacent to, the Ogallala Aquifer. The Ogallala Aquifer serves as a vital supply of drinking and irrigation water for numerous states on the Great Plains, from Texas to South Dakota. WCS effectively serves as a national dump-site for such radioactive wastes. (Several state environmental agency staffers resigned their career jobs in protest over the outrageous decision to allow WCS to open for "low" level radioactive waste dumping in the first place.) WCS also accepted many scores of barrels from Los Alamos Nuclear Lab in New Mexico, containing the same volatile mix as burst in the WIPP underground in 2014. Already, the potentially bursting barrels have sat out in the hot summer sun at WCS in 2014, 2015, and now 2016, with no end in sight. Heat fueling a chemical reaction, igniting combustibles, and pressure build-up, is the entire problem with the burst risk. If one or more barrels burst at WCS, into the open air of the surface environment, the releases of plutonium and other ultra-hazardous trans-uranic radioactive wastes could be significantly worse, in terms of downwind and downstream fallout, than the 2014 WIPP release, which originated 2,000 feet below ground, and had to follow a long, circuitous path, through thousands of feet of horizontal burial caverns and tunnels, as well as thousands of feet of vertical ventilation shaft, to reach the surface environment, and fallout over a wide area downwind. The barrels at WCS are *at* the surface environment! WCS accepting these potentially explosive barrels in

such a great big hurry in the first place, without even knowing the risks they were getting into, shows what a careless company it is. It cannot and should not be trusted to store high-level radioactive waste, not even temporarily (although “interim” is a deception – the storage would become very long term, perhaps even permanent).

A second company, Advanced Fuel Cycle Initiative (AFCI), is targeting another west TX county for *de facto* permanent storage as well: Culberson. Given the large Hispanic American population in the area, as well as low-income levels, Environmental Justice concerns are raised, yet again, by these proposed west TX parking lot dumps. Much the same can be said regarding the populations in southeastern New Mexico, surrounding the proposed parking lot dump there.

Another parking lot dump target – Savannah River Site (SRS), South Carolina – also raises red flags about disproportionate impacts on people of color and low-income communities. SRS is already a badly radioactively contaminated region, due to decades of nuclear weapons production, and other related nuclear activities (such as mixed oxide plutonium fuel storage and fabrication, civilian high-level radioactive waste reprocessing, etc.). But in addition, the area also “hosts” the adjacent Barnwell, SC “low” level radioactive waste dump – a national dump for decades on end, long leaking. To make matters even worse, the area “hosts” the largest – in terms of number of reactors – nuclear power plant in the U.S., Vogtle. Vogtle Units 1 and 2 have already operated for decades; Units 3 and 4 are currently under construction. The nearby community of Shell Bluff, Georgia is predominantly African American and low-income. Targeting the SRS area with a high-level radioactive waste parking lot dump would just compound the environmental injustice even worse.

HIGH-LEVEL RADIOACTIVE WASTE STORAGE POOLS

We do not consent to the nuclear power industry, with NRC’s blessing, keeping high-level radioactive waste at high-risk, high-density “wet” storage in waste pools, for years or decades into the future. NRC decommissioning regulations, for example, allow pool storage for as long as 60-years post reactor shutdown (so, if the reactor had operated for 60 years, as NRC has permitted time and again, that would mean a total of 120 years of pool storage; NRC is now actively considering allowing 80 years of operations at reactors, which would then add up to 140 years of pool storage.). Nuclear utilities seek to defer dry cask storage costs as far off into the future as possible, by maximizing pool storage for as long as possible. Pools are so densely-packed, they have approached operating reactor core densities. Especially considering degradation of neutron absorbing structures (such as Boraflex panels) in the pools, this risks potentially deadly and disastrous nuclear chain reactions in the unshielded pool. But high-density storage also risks a sudden cooling water drain down, or a slower motion boil down. Either way, the worst case scenario would be a partial drain down, where irradiated nuclear fuel is partially exposed to air, with remaining pool water below blocking convection air currents, that would at least provide some (and perhaps still not enough) cooling to the overheating exposed irradiated nuclear fuel assemblies. Once exposed to air, the zirconium-clad fuel rods could reach ignition temperature within hours, initiating spontaneous combustion. The chemical reaction would turn exothermic, self-feeding, with the fire burning down the fuel rods, not unlike 4th of July sparklers. The pool would be unapproachable, due to lack of cooling water radiation shielding, with instantaneously deadly doses nearby. Thus, emergency responders would likely be blocked from intervening, making even suicide squad interventions ineffective. The radioactive Cesium-137 releases alone, to the environment, would be catastrophic, due to such a pool fire.

We do not consent to ongoing pool storage, due to pool leaks that, according to NRC in 2013, have already occurred at 13 pools across the U.S. This number can be expected to increase, with worsening age-related degradation at U.S. nuclear power plants. Such pool leaks harm soil, groundwater, surface water, and people and other living things downstream, up the food chain, and down the generations.

We do not consent to pools being dismantled during nuclear power plant decommissioning. Although pools should be off-loaded into hardened on-site storage ASAP (see below), and kept unloaded, the pool structures, systems, and components themselves should be left intact, maintained, and not dismantled or allowed to fall into disrepair. Keeping functional pools extant, albeit empty until needed, would provide an emergency location for failed cask to new replacement cask transfers of irradiated nuclear fuel, with needed radiation shielding. If pools are dismantled at decommissioning nuclear power plant sites (as has been the standard approach thus far), any cask-to-cask transfers would have to be done on an *ad hoc* basis, perhaps under a worsening emergency situation. There is no reason to paint ourselves into such a corner. Pools can be maintained to provide an emergency back-up transfer option. Although they should no longer be used for regular waste storage, as they are too risky.

NEED FOR HARDENERED ON-SITE STORAGE (HOSS)

We do not consent to NRC’s status quo, allowing nuclear utilities to store irradiated nuclear fuel for as long as 120 years in vulnerable storage pools, and to store high-level radioactive waste in vulnerable dry casks. Many hundreds of environmental, public interest, and social justice groups, representing all 50 states, have called for Hardened On-Site Storage (HOSS) for 15 years. HOSS calls for emptying of vulnerable storage pools into dry casks, but not into vulnerable status quo ones, as is currently done. This out of the frying pan, into the fire approach is unacceptable and dangerous. Dry casks must be designed and built well, with rigorous QA standards, to last not decades, but centuries. Dry cask storage must be safeguarded against leaks, accidents, natural disasters, and intentional attacks. Such health, safety, security, and environmental protections are not fulfilled by current, vulnerable dry cask storage permitted by NRC.

We do not consent to abandonment of high-level radioactive waste on the shores of the Great Lakes, on the banks of rivers, on the ocean coasts, etc., where it is currently stored. Such abandonment would lead to catastrophic releases of hazardous radioactivity over time, into the drinking water supplies for countless millions of people, into major fisheries, etc. This is especially true under climate chaos scenarios, with extreme weather events at such locations, and rising sea levels, causing major flooding. Many of these very same sites are also vulnerable to earthquakes, tsunamis, and other natural disasters. As environmental groups have long advocated, high-level radioactive wastes should be stored as close to the point of origin as possible, as safely as possible. Certain sites are not appropriate for HOSS, just as they were not appropriate for reactors in the first place. Prairie Island, Minnesota, is a case in point, home to the Prairie Island Indian Community, which never granted its consent to the construction and operation of the two atomic reactors there, nor to the generation and storage of high-level radioactive waste, just hundreds of yards from their community. While wastes need to be relocated from Prairie Island to higher ground, out of the flood plain of the Mississippi River, this should be done in the

immediate area, as close as possible, as safely as possible. This is no justification to launch a national Mobile Chernobyl/parking lot dump campaign, creating a whole new set of potentially catastrophic risks elsewhere. In fact, Prairie Island nuclear power plant's owner, Xcel Energy/Northern States Power, has been an infamous leader in such schemes, for decades, including the radioactively racist targeting of PFS at the Skull Valley Goshutes Indian Reservation in Utah.

We do not consent to NRC's science fiction fantasy of non-existent, unfunded "Dry Transfer Systems," and the absurd notion that these Dry Transfer Systems and dry cask storage installations, will be replaced, in their entirety, once every hundred years, whether the storage is at current nuclear power plant sites, or away-from-reactor locations (such as *de facto* permanent parking lot dumps). Dr. Mark Cooper of Vermont Law School has estimated that the first 200 years of irradiated nuclear fuel management in the U.S. – assuming a single repository, and a certain number of centralized interim storage sites – will already cost ratepayers, and/or taxpayers, \$210 to 350 billion – effectively doubling the cost of nuclear-generated electricity, if accounted for (which it never has been, till Dr. Cooper did the calculations on his own initiative, on behalf of an environmental coalition intervening in NRC's Nuclear Waste Confidence/Continued Storage of Spent Nuclear Fuel proceeding). But 200 years is a drop in the ocean, compared to the million years, or longer, high-level radioactive waste remains hazardous. We need to stop making it, by shutting down reactors and replacing them with energy efficiency and renewable sources, such as wind power and solar photo-voltaic (PV). And we need to figure out how to keep the radioactive waste that already exists, isolated from the living environment, forevermore. As Arnie Gundersen, Chief Engineers of Fairewinds Associates, Inc., has put it: "We all know that the wind doesn't blow consistently and the sun doesn't shine every day, but the nuclear industry would have you believe that humankind is smart enough to develop techniques to store nuclear waste for a quarter of a million years, but at the same time humankind is so dumb we can't figure out a way to store solar electricity overnight. To me that doesn't make sense."

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We do not consent to the proposed dumpsite for high-level radioactive waste at Yucca Mountain, Nevada. It was wisely cancelled and defunded by the Obama administration and DOE in 2010, as it should have been from the beginning, in the early 1980s. Obama and the Energy Secretaries serving under him declared Yucca "unworkable." Unfolding what "unworkable" means would have to include that the site is not scientifically suitable. It is a very active earthquake zone. It is a volcanic zone. It is saturated with water underground. It has highly corrosive chemistry in the rock, which, combined with the thermal heat of the waste, and the surrounding moisture, would create the perfect storm for burial container failure in a relatively short period of time. If irradiated nuclear fuel were ever to be buried at Yucca, it would leak out massively over time. The catastrophic amounts of hazardous radioactivity would be carried by Yucca's groundwater to points downstream, including the Amargosa Valley agricultural region, one of Nevada's most productive, as well as Death Valley, home to the Timbisha Shoshone Nation.

Unworkable also means that Yucca is Western Shoshone Indian Nation land, by the "peace and friendship" Treaty of Ruby Valley of 1863. The Yucca dump is an unacceptable environmental justice violation.

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Thank you for accepting comments,

Lynn Biddle

Consent Based Siting

From: james talbot
Sent: Thursday, May 19, 2016 1:09 PM
To: Consent Based Siting
Subject: Response to IPC

No consolidated interim storage!

Nothing but a time bomb.

Consent Based Siting

From: REKOLA, Kaitlin
Sent: Tuesday, May 17, 2016 11:56 AM
To: Consent Based Siting
Subject: Question to IPC deadline

Hello,

I wanted to confirm that the official deadline for filing is now July 31? The federal register noticed linked on the website still says June 15th and I was unable to find an updated federal register notice with the new deadline. Please advise if the July 31 is now the deadline to respond to the invitation for public comment on DOE's consent based siting questions.

Thank you,

Kaitlin E. Rekola
Staff Counsel, Legal Division

Nuclear Energy Institute



TAKE THE NEI FUTURE OF ENERGY QUIZ, www.NEI.org/futureofenergy

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Sent through www.intermedia.com

Consent Based Siting

From:
Sent: Monday, May 16, 2016 12:01 AM
To: Consent Based Siting
Subject: Response to IPC

DOE poses the following questions:

- How can the Department ensure that the process for selecting a site is fair?
- What models and experience should the Department use in designing the process?
- Who should be involved in the process for selecting a site, and what is their role?
- What information and resources do you think would facilitate your participation?
- What else should be considered?

-How can the Department ensure that the process for selecting a site is fair?

'Fairness' is a politically charged word that is entirely subjective.

-What models and experience should the Department use in designing the process?

By not creating such a model, and finding an actual solution to LWR waste. Solomon-like decisions are not in your purview.

-What models and experience should the Department use in designing the process?

Rolling dice? Flipping coins? You've created a false question to a real problem.

-Who should be involved in the process for selecting a site, and what is their role?

Anybody with the authority to increase NRC engineering budgets to include a greater number of engineers who can vet, approve and get Gen IV designs moving.

-What information and resources do you think would facilitate your participation?

Reviewing and reversing the execrable decision to walk away from MSR and/or IFR technology. We came to a political three way fork in the road in the early 1970s, and chose the worst route to get to where we are today.

At that point, you wouldn't need my participation. Capital investment would build Gen IV reactors everywhere.

What else should be considered?

Yucca Mtn has absorbed and squandered \$40 BILLION in a grossly mistaken attempt to hide high level nuclear waste for

100,000 years, when 95% of the extractable nuclear energy is still left in the waste.

A fleet of Gen IV nuclear reactors will leave a waste stream that is 5% the volume of the LWR high level waste originally generated. The waste is hot for 300 years, not 100,000 years. The volume is suitable for deep borehole disposal in ANY granite formation.

For that \$40B, we've politically aggravated the entire state of NV. At the same time, the volume of waste generated now, has you trying to find a way to sugar coat the reality that every state has an obligation to store/dispose uncomfortable quantities of hi-level waste, when it REMAINS a useful fuel with large amounts of untapped energy IN it.

Why are you dithering? MSR and IFR technology is a question of engineering. The private sector capital exists, but the political leadership to solve the waste problem AND create cheap, plentiful energy for electricity, refinery, district and desalinization heat, at the same time, is utterly lacking.

YOU have a chance to correct the awful political decisions that rolled out of the Nixon/Carter and, later, Bush 1 and Clinton administrations.

I'd be pleased to discuss this subject with anyone, although there are many others who are far more knowledgeable.

William Foote

Consent Based Siting

From: Joel Masser
Sent: Saturday, May 14, 2016 5:52 PM
To: Consent Based Siting
Subject: Response to IPC

During the public comments at the Sacramento meeting, one individual spoke about “voting with your feet.” I would like to respond to this argument.

The fact that San Clemente has grown during the time the San Onofre power plant has been operating was cited as proof that the public doesn't mind living near nuclear power generating stations. This paints an incomplete picture and is an invalid argument.

I can speak from my own experience. When I considered cities for relocation in retirement, I ruled out Orange County, San Diego County, and San Luis Obispo County because I didn't want constant exposure to the hazards of nuclear power generation. For me this raises the question, “Were the the people who moved to San Clemente fully informed of the potential dangers and were they able to understand the potential dangers?”

We know what happened but we don't know what might have happened if the situation were different. Population growth may have been much more without San Onofre. Tourism revenue and business growth may also have been much larger if the nuclear power plant were not so close by. It is notable that now that the plant is no longer generating electricity, the local residents are suddenly very eager to get the waste away from them as soon as possible and without regard for where it goes or what happens to it or who may be at risk.

Another thing to consider is that people have many reasons for not wanting to move, from simple inertia to a feeling of being rooted in the place they call home, to a real need to live on sacred lands. For many Native Americans, moving away is not an option.

Finally, I would like to observe that people seem to be able tolerate a nearby nuclear plant until there is an accident. But that changes when they have to face the reality of radioactive contamination. For example, the people of Fukushima don't want to return even in spite of government incentives and coercion.

I fear that innate optimism prevents people and especially their governments from objectively evaluating the facts and taking a prudent course of action.

Joel Masser

Consent Based Siting

From: Cindi Andersen
Sent: Friday, May 13, 2016 4:29 PM
To: Consent Based Siting
Subject: San Onofre Generating Station (San Onofre, Calif.)

Good afternoon, Department of Energy,

I would please like to ask about the future of the San Onofre Nuclear Generating Station (SONGS), which is located on Navy-owned land at Camp Pendleton. Since the lease runs for many more years, is there any chance for the electrical switchgear and transformers at SONGS to be re-purposed for use with a natural gas-powered electrical plant on the property? I wouldn't think that the U.S. Navy would object to having electrical energy produced from natural gas rather than nuclear power, especially when Camp Pendleton itself would benefit and Southern California Edison would continue to pay the Navy rent on the property. Since SONGS has its own railroad spur, underutilized portions of the land could generate extra rental income for SCE & the Navy as a civilian/military business park with light industry.

Also, local civilian harbors such as the ones at Dana Point & Oceanside lack vacancies for boats over 33' in length and have a severe shortage of room for dry-boat storage. As SONGS possesses a large seawall along the ocean-facing side of the plant, perhaps a small auxiliary harbor could be constructed along it. There was a very interesting 1949 design for a small harbor at San Clemente that was never built -- maybe the basic plan could be added to SONGS, along with an extension of the existing rail spur so as to accommodate the loading and unloading of cargoes. Security for SONGS would be enhanced through the presence of a small U.S. Coast Guard station at the harbor (per the 1949 design) and of course, any or all of these options would help to raise money for both SCE and the Navy through leases.

Small 1949 San Clemente Harbor Design -

http://www.habig.com/remember_harbor.html

Southern California needs the electricity and jobs produced by SONGS and it seems like such a waste of infrastructure for a perfectly-good facility to be scrapped just because the nuclear aspect is no longer on the table. As things stand, even while a natural gas plant operates on SONGS, the closed nuclear portion of the facility might be able to be gradually converted for use as a Thorium-based reactor in the future, if Thorium is indeed as promising as it is claimed to be.

Thorium Reactor Advantages -

<http://www.extremetech.com/extreme/160131-thorium-nuclear-reactor-trial-begins-could-provide-cleaner-safer-almost-waste-free-energy>

Thank you very much,
Cindi Andersen

Consent Based Siting

From: Friday, May 13, 2016 11:48 AM
Sent: Consent Based Siting
To:
Subject: response to IPC

Please help me understand.

Is there another place in California that has as much spent fuel as San Onofre? Look at a map. Where is the population most affected?

Please reconsider. We need to have a hearing in Orange County.

Thank you.

Toni Iseman
Mayor Pro Tem

Consent Based Siting

From: Mary Olson
Sent: Thursday, May 12, 2016 9:42 PM
To: Consent Based Siting
Cc: Mary Woollen
Subject: Your booklet

Hello,

Just looking at the map of nuclear waste sites on page 5 of the glossy booklet.

Nice graphic, but Savannah River Site is not in GA...and Hanford is on the Columbia River dams as your pix suggests...

Just thought you might want some greater credibility.

Sincerely,

Mary Olson
Nuclear Information and Resource Service, Southeast

Consent Based Siting

From: Joel Masser
Sent: Saturday, May 07, 2016 5:52 PM
To: Consent Based Siting
Subject: Response to IPC

1. How can the Department ensure that the process for selecting a site is fair?

1.1 Overall process fairness.

The entire process of setting standards, evaluating proposals, and site selection needs to be transparent, open, public, and democratic.

1.2 Fairness in meetings and hearings.

All meetings and hearings must be public. All proceedings must be recorded and published. DOE needs to ensure easy access to their public meetings and hearings and actively use public comments to improve their processes and plans. They must schedule public meetings and hearings at times and places that are conducive to broad community participation. DOE must provide timely notification to all potentially impacted municipalities, counties, states, and tribal governments. Potentially impacted means anyone who may feel that they are impacted.

1.3 Fairness of consent.

The definition of affected persons needs to be broad, certainly not limited to a host community and adjacent communities.

1.3.1 Informed Consent.

Consent must be based on decision-makers and voters being fully informed.

The public has a need and right to know immediately when any entity volunteers or inquires about volunteering. This is the only way citizens can determine for themselves whether they are affected and wish to participate in the process.

Affected persons being fully informed requires full disclosure by the Department of Energy of the accident and leakage histories of all of its past and present nuclear waste storage sites. Projected radioactive incidents in regard to a proposed site is material information required for making a decision. Therefore, the DOE must make this information freely available.

Because of the extraordinary and complex risks that would have to be assumed by a hosting community, the DOE must conduct extraordinary outreach to inform the public. DOE needs to use

direct mail and telephone contact with all potentially impacted citizens informing them of the issues affecting them.

Fairness in public discourse requires DOE to ensure that equal time and money are spent advising the public of pros and cons of hosting a storage site, including informational messages and advertising related to any referenda. Attempting to sell or force a site on a region would be an abuse of power.

Informed consent requires that detailed quantitative standards be finalized before any siting proposals are accepted. All requirements that a site needs to satisfy must be clearly defined. All standards and evaluations must be based on valid, up-to-date scientific knowledge and engineering best practices. The standards need to go through a public review and comment process. Currently existing standards fail to meet these requirements. Once finalized, the site standards and evaluation process and criteria must be set forth in the request for proposals. Setting, modifying, or waiving standards or granting exemptions for a specific proposed site must not be allowed. In addition, states need to have the legal authority to set higher standards than those of the federal government for nuclear waste storage, transport, and for radioactive emissions.

1.3.2 Democratic consent.

To be fair, consent must be democratic. Consent means the willing approval by governments and a majority of the people of each state, county, local government unit, and tribal organization within 100 miles of either a proposed site or within 50 miles of a transportation route to a proposed site.

1.3.3 Escape clause.

The contract for hosting a nuclear waste dump needs to be cancelable for cause, including unacceptable engineering changes, violation of safety standards or provisions, or other non-performance by the Department of Energy or its contractors. Further, it needs to be cancelable if material new information becomes available such that the hosting entity would not have entered into the contract if that information had been known.

1.3.4 Fairness in terms of Environmental Justice.

Economically disadvantaged communities are especially at risk. Special efforts must be made to inform and engage disadvantaged groups that could possibly be affected. They can easily be motivated by payments for hosting a site. They may not realize the importance of being informed by a complete, objective cost-benefit analysis in terms of money, safety, and health for both short and very long time frames. Siting in an under-informed disadvantaged community based on promises of money or jobs would be evidence of discrimination. DOE must strive to satisfy the requirements of Executive Order 12898 and to meet its own goals for Environmental Justice as set forth in its Environmental Justice Strategy document. In particular the Department of Energy needs to ensure that with respect to nuclear waste siting, it achieves its four stated goals:

1. Goal 1 – Identify and address programs, policies, and activities of the Department that may have disproportionately high and adverse human health or environmental effects on minority, low-income, and tribal populations.
2. Goal 2 – Enhance the credibility and public trust of the Department by further making public participation a fundamental component of all program operations, planning activities, and decision-making processes.

3. Goal 3 – Improve research and data collection methods relating to human health and the environment of minority, low-income, and tribal populations.
4. Goal 4 – Further Departmental leadership by integrating environmental justice with activities and processes related to human health and the environment.

2. What models and experience should the Department use in designing the process?

First of all, it must be recognized that experience is far more important and reliable than modeling. Relevant experiences include the disasters at Three Mile Island, Chernobyl, and Fukushima. The disasters of British Petroleum Deepwater Horizon and Porter Ranch methane leak are also relevant because they are examples of deep drilling that are hard to plug when leaking. Other relevant experience includes leakage at WIPP, Hanford, and US Ecology near Beatty, Nevada. The leaks are due to improper containment both in containers and geological setting. The experience to date shows that existing federal standards are not strong enough. The new process and storage methods must be designed with fail safe components that will preclude further disasters.

3. Who should be involved in the process for selecting a site, and what is their role?

3.1 Stakeholders.

All stakeholders must have the opportunity to provide input and all concerns must be addressed. Stakeholders include people who live or work within 100 miles of a proposed site or within 50 miles of a transportation route, public safety agencies, public health agencies, health professionals and organizations, social justice organizations, environmental justice organizations, and faith organizations.

3.2 Roles.

The role of stakeholders is to raise concerns and inform DOE how siting plans affect them. DOE's role, and responsibility, is to address all concerns to the satisfaction of the stakeholders.

4. What information and resources do you think would facilitate your participation?

4.1 Meetings.

The structure of meetings has been mentioned above under question 1 on fairness. Meeting structure can facilitate or discourage participation. In order to facilitate participation, meetings and hearings must conform to certain guidelines. First, advance notice of at least 4 weeks is required. Second, meetings must be held in evenings or on weekends. Third, meetings must be at locations that are served by public transit and also have ample free parking. Finally, meetings must have online video and audio access with 2-way communication for both listening and submitting comments or questions.

4.2 Inclusiveness.

My continued participation also depends on the degree to which my questions are answered and my comments are taken seriously and are used to improve DOE's processes and plans. If I felt DOE was not listening to me, I would mention it to my Congressional representatives.

5. What else should be considered?

5.1 Extraordinary project requirements.

The unprecedented length for a project life cycle for a human enterprise demands a conservative process, conservative standards, and a conservative approach to safety that incorporates early warning and redundant safety systems. The DOE process must accurately assesses risks and mitigate as much risk as is humanly possible. Backup plans and recovery plans are needed.

5.2 Unsolved safety problems.

Many safety issues remain unresolved. Containers and containment have been and continue to be plagued by problems. Existing means of transport are inadequate to ensure safety. A detailed assessment of needed upgrades in transport infrastructure and equipment is required. All of these issues must be resolved before any siting proposals can be considered.

5.3 Interim storage contra-indicated.

Proposed legislation and DOE contemplate both interim storage and permanent storage. Interim storage is a very bad strategy. It would double the hazards of transportation and would double the costs of site construction and preparation. Furthermore, it would greatly increase the risks to life and health since lower safety standards are contemplated for temporary storage.

5.4 Liability requirements.

The DOE must contract for an independent professional actuarial analysis of liability reserve requirements, including claims for property damage, loss of life, injury, illness, cleanup, and restoration of all damaged areas. Loss due to both storage and transport must be included. The funding needed for site maintenance also needs to be determined by accepted actuarial methods. Perpetually financing nuclear waste storage through fees based on nuclear power plant operations is a flawed strategy since nuclear power generation is uneconomical and is not a reliable source of financing in the long term. DOE needs to find a new, permanent, sufficient source of funding.

5.5 Government control

Private sector participation in waste storage must be severely restricted for several reasons. First, the future solvency of corporations cannot be guaranteed. Second, the temptation to cut costs is inescapable by for-profit businesses and cost cutting threatens safety. Third, the government needs to retain firm control over future costs, risks, and liabilities. Waste storage sites must be on public land. Construction must be closely supervised by the Federal Government. Once constructed, sites must be under direct government management.

5.6 Site proposal requirements.

Any site proposal must include:

1. Identification and scientific assessment of all hazards and all potential impacts of the proposed site on its surroundings and of the surroundings on the site.
2. Geological description and analysis of the proposed site.
3. Container and containment plan. Containers must be capable of being inspected and repaired.
4. Plan for site security plan, including and funding sources.
5. Plan for transporting waste to the site including transport security.

6. Plan for site maintenance, including funding sources. Site maintenance must include regular independent inspections of containers, containment structures, geological stability, early warning systems, and recovery systems. Site management must be subject to independent oversight.
7. Plans for emergency response, failure recovery, and damage remediation, including funding sources.
8. Plan for comprehensive testing for all above plans including full-scale, stress and multiple-fault testing. Physical testing needs to be conducted to verify compliance with established standards. In particular, containers, geological setting, transportation equipment and infrastructure, security systems, maintenance procedures, emergency response, and disaster recovery and remediation need to be thoroughly tested. A commitment to fix the problems found is also needed.
9. Results of testing.
10. Cost evaluation and financing plan.
11. Description of methods to be used for obtaining informed approval of all affected people.

Joel Masser

Consent Based Siting

From: George Courser
Sent: Friday, May 06, 2016 8:13 PM
To: Consent Based Siting
Subject: Response to IPC

05-06-16

DOE officials:

RE: Response to IPC

Please understand that there was never any consent based siting of San Onofre Nuclear Generating Station(SONGS) during the 65-years I have lived in Southern California. Certainly no one has ever agreed to store more than 3 million pounds of highly radioactive waste a hundred feet from our beach. The very concept is an absurdity. What sane population would invite storage of the world's most toxic substances subject to ocean corrosion and the impacts of potential tsunami waves? The DOE has no credibility in Southern California. Please leave our region and take these toxic poisons with you.

Sincerely,

George Courser

Consent Based Siting

From: Gordon Nesbitt
Sent: Friday, May 06, 2016 3:36 PM
To: Consent Based Siting
Subject: Response to IPC

Mr. Kotec:

DoE should not be allowing Edison to host a meeting aimed at gathering public input. Instead DoE should be managing the storage of San Onofre waste in a way that is independent of SoCal Edison's influence. It's time that DoE stop sleeping with SoCal Edison. First and foremost DoE should be representing the public's interests and not the financial well being of SoCal Edison.

v/r,
Gordon A. Nesbitt

Consent Based Siting

From: Rod Skeen
Sent: Thursday, May 05, 2016 9:19 AM
To: Consent Based Siting
Subject: Please add the Confederated Tribes of the Umatilla Indian Reservation to you mailing list

Good morning,

As the manager of the CTUIR Energy and Environmental Sciences Program I would like to be added to your mailing list on consent based siting. I believe the CTUIR would like to participate in the up coming meeting in Boise, ID and also may be interested in participating in the Nuclear Energy Tribal Working Group (NETWG).

Thank You,

Rod Skeen

Rodney S. Skeen, Ph.D., P.E.

Energy and Environmental Sciences Program Manager

Department of Natural Resources

Confederated Tribes of the Umatilla Indian Reservation

Consent Based Siting

From: Charles Langley
Sent: Wednesday, May 04, 2016 6:21 PM
To: Consent Based Siting
Subject: Response to IPC - SONGs Nuclear Waste Dump Hearings Requested

Dear DOE Consent-Based Citing Team,

We are concerned that the planned venue for community input regarding Consent-Based Siting for SONGs, the San Onofre Nuclear Generating Station is not an objective or appropriate one.

If I understand correctly, the current plan is for DOE to use the Southern California Edison-sponsored Community Engagement Panel (CEP) on June 22 to get input from the community.

You should be aware that this is a corporate sponsored media event that does not enjoy public support. Nor has it garnered the public's trust. I have personally been at meetings where former elected officials have been prevented from speaking, and where the paid Edison representative, Dr. David Victor, shouted at participants when they asked questions that his employer, Southern California Edison, did not approve of.

Furthermore, these meetings are heavily attended by employees and former employees of Southern California Edison. I am concerned that these are little more than Edison employees posing as "citizens" in order to prevent legitimate community voices from speaking and asking questions.

In the last meeting, I personally witnessed one of these corporate shills. He proposed turning SONG's irradiated cooling system into a desalination plant for potable drinking water. This ludicrous idea was presented in a manner that prevented concerned members of the public from speaking and asking legitimate and useful questions.

More troubling, the format is entirely controlled by Southern California Edison's public relations team. Do not mistake Edison's "Community Engagement Panel" for actual community engagement. It is a fraud and a sham.

We therefore respectfully request that the Department of Energy convene an independent DOE siting process that isn't controlled by Southern California Edison and includes meetings in Southern California.

Further, we request that these meetings be held in locations that actually serve the public without the corrupting influence and unsavory lobbying of Southern California Edison.

Cordially,

Charles Langley, Public Advocate
Public Watchdogs



Consent Based Siting

From: Howard
Sent: Wednesday, May 04, 2016 9:44 AM
To: Consent Based Siting
Subject: Fwd: SONGS request for public comment

Sent from my iPhone

Begin forwarded message:

From: Rita Conn
Date: May 3, 2016 at 3:19:13 PM PDT
To: Consent Based Siting <consentbasedsiting@hq.doe.gov>
Subject: SONGS request for public comment

Dear consent-based citing team,

I recently received a letter from acting assistant secretary for nuclear energy, John F. Kotek regarding the opportunity for public comment and concerns for San Onofre Nuclear Generating Station (SONGS) on June 22 at the Edison Community Engagement Panel.

We have a large following and our communities are eager to ask questions and express concerns. They hope that the Department of Energy will be unbiased and honest in response to their concerns. This has not been the case with any Edison Community Engagement Panel. I realize you are not aware of the negative public sentiment and distrust the citizens possess for Edison despite the millions of dollars Edison spends each year trying to whitewash their tattered reputation.

We are willing to work towards getting you a large group of eager people at a Southern California Consent Based Siting meeting if you can afford us the same opportunity as you did for Northern California which had an independent event. Our communities want to trust the DOE. Holding a Southern California meeting as part of the Edison CEP will leave only one hour at 8:30 PM for people to speak. This could equate to a one minute time limit per person further exasperating the people in Southern California.

Please provide us with an independent DOE siting process date and location sponsored only by the DOE and minus the negative stimuli of the utility company that will profit. It is only in this way that you will be able to get the amount of people you will need in order to say that you truly held consent based meetings throughout the country.

Thank you

Rita Conn
Chairwoman Let Laguna Vote/Secure Nuclear Waste

Sent from my iPhone

Consent Based Siting

From: Charles Langley
Sent: Wednesday, May 04, 2016 12:27 AM
To: Consent Based Siting
Subject: Request for legitimate DOE hearings on SONGS, June 22, Consent-Based Siting

Dear DOE Consent-Based Citing Team,

We are concerned that the planned venue for community input regarding Consent-Based Siting for SONGS, the San Onofre Nuclear Generating Station is not an objective or appropriate one.

If I understand correctly, the current plan is for DOE to use the Southern California Edison-sponsored Community Engagement Panel (CEP) on June 22 to get input from the community.

You should be aware that this is a corporate sponsored media event that does not enjoy public support. Nor has it garnered the public's trust. I have personally been at meetings where former elected officials have been prevented from speaking, and where the paid Edison representative, Dr. David Victor, shouted at participants when they asked questions that his employer, Southern California Edison, did not approve of.

Furthermore, these meetings are heavily attended by employees and former employees of Southern California Edison. I am concerned that these are little more than Edison employees posing as "citizens" in order to prevent legitimate community voices from speaking and asking questions.

In the last meeting, I personally witnessed one of these corporate shills. He proposed turning SONG's irradiated cooling system into a desalination plant for potable drinking water. This ludicrous idea was presented in a manner that prevented concerned members of the public from speaking and asking legitimate and useful questions.

More troubling, the format is entirely controlled by Southern California Edison's public relations team. Do not mistake Edison's "Community Engagement Panel" for actual community engagement. It is a fraud and a sham.

We therefore respectfully request that the Department of Energy convene an independent DOE siting process that isn't controlled by Southern California Edison.

Further, we request that these meetings be held in locations that actually serve the public without the corrupting influence and unsavory lobbying of Southern California Edison.

Cordially,

Charles Langley, Public Advocate
Public Watchdogs



Consent Based Siting

From: Stuart Bloom
Sent: Tuesday, May 03, 2016 6:29 PM
To: Rita Conn
Cc: Consent Based Siting
Subject: Re: SONGS request for public comment

Thanks dear Rita for doing this important work. I look forward to hearing more info when u get it.
Lottts of love to both you and Howard,
Stuart

Sent from my iPad

On May 3, 2016, at 3:19 PM, Rita Conn wrote:

Dear consent-based citing team,

I recently received a letter from acting assistant secretary for nuclear energy, John F. Kotek regarding the opportunity for public comment and concerns for San Onofre Nuclear Generating Station (SONGS) on June 22 at the Edison Community Engagement Panel.

We have a large following and our communities are eager to ask questions and express concerns. They hope that the Department of Energy will be unbiased and honest in response to their concerns. This has not been the case with any Edison Community Engagement Panel. I realize you are not aware of the negative public sentiment and distrust the citizens possess for Edison despite the millions of dollars Edison spends each year trying to whitewash their tattered reputation.

We are willing to work towards getting you a large group of eager people at a Southern California Consent Based Siting meeting if you can afford us the same opportunity as you did for Northern California which had an independent event. Our communities want to trust the DOE. Holding a Southern California meeting as part of the Edison CEP will leave only one hour at 8:30 PM for people to speak. This could equate to a one minute time limit per person further exasperating the people in Southern California.

Please provide us with an independent DOE siting process date and location sponsored only by the DOE and minus the negative stimuli of the utility company that will profit. It is only in this way that you will be able to get the amount of people you will need in order to say that you truly held consent based meetings throughout the country.

Thank you
Rita Conn

Chairwoman Let Laguna Vote/Secure Nuclear Waste

Sent from my iPhone

Consent Based Siting

From: Rita Conn
Sent: Tuesday, May 03, 2016 6:19 PM
To: Consent Based Siting
Subject: SONGS request for public comment

Dear consent-based citing team,

I recently received a letter from acting assistant secretary for nuclear energy, John F. Kotek regarding the opportunity for public comment and concerns for San Onofre Nuclear Generating Station (SONGS) on June 22 at the Edison Community Engagement Panel.

We have a large following and our communities are eager to ask questions and express concerns. They hope that the Department of Energy will be unbiased and honest in response to their concerns. This has not been the case with any Edison Community Engagement Panel. I realize you are not aware of the negative public sentiment and distrust the citizens possess for Edison despite the millions of dollars Edison spends each year trying to whitewash their tattered reputation.

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Thank you
Rita Conn
Chairwoman Let Laguna Vote/Secure Nuclear Waste

Sent from my iPhone

Consent Based Siting

From: carole hisasue
Sent: Friday, April 29, 2016 3:46 PM
To: Consent Based Siting
Subject: Response to IPC - Consent-based Siting

As someone who lives within ten miles of a nuclear facility, nothing would make me happier than to see the nuclear fuel and waste from Diablo Canyon disappear. However, sending it away to another area temporarily is not the answer. The answer is to shut down the nuclear facilities until you find a permanent solution to the waste problem instead of just letting the problem keep growing day by day.

The entire plan for any temporary storage sounds like a continuous shuffling of something that should be moved only once.

Furthermore, you have the logistical nightmare of transporting highly radioactive material. Even as it is, the waste is stored in inadequate casks and canisters. How could any of it be transported safely?

What are the chances that any of the “volunteer” sites are scientifically suitable for this high-level radioactive waste or that they can be managed for tens of thousands of years?

The concept is morally repugnant because in practice you would be throwing money at impoverished or marginalized communities to accept someone else’s highly toxic waste. This is environmental injustice and radioactive racism. In addition, what lies beneath the concept is not concern for public health, safety, the environment or taxpayers but the transfer of the liability for high-level nuclear waste, away from the industry that profits from its creation to the taxpayer and ratepayer.

It is wrong legally because we are talking about something that stays toxic and dangerous for generations to come. How can one generation give “consent” for future generations? If the next generation (or administration) decides they do not want the waste, does it get moved again?

Instead, I urge you to use Hardened On-Site Storage (HOSS) to secure and safeguard the wastes where they currently are until safe, secure and socially acceptable sites can be identified. And stop producing more of this waste today. Please shut down all nuclear facilities until you can find a permanent solution.

Carole Hisasue
Los Osos, California

Consent Based Siting

From: Elizabeth McCarthy
Sent: Wednesday, April 27, 2016 3:41 PM
To: Consent Based Siting
Subject: Re: Consent Based Siting Public Meeting in Sacramento

Please send the names and titles of the speakers from yesterday's meeting as it was difficult to get them between the sound problems and the telephone access and online access being out of sync.

On Tue, Apr 26, 2016 at 11:00 AM, Elizabeth McCarthy wrote:
Thanks

On Tue, Apr 26, 2016 at 10:59 AM, Consent Based Siting <consentbasedsiting@hq.doe.gov> wrote:

Yes, here is the webcast link <http://consentbasedsitingwebcast.azurewebsites.net>

From: Elizabeth McCarthy
Sent: Tuesday, April 26, 2016 1:56 PM
To: Consent Based Siting
Subject: Consent Based Siting Public Meeting in Sacramento

Is the meeting being webcast or available remotely?

--
Elizabeth McCarthy
Editor
California Current - *Your Energy Source*

--
Elizabeth McCarthy
Editor
California Current - *Your Energy Source*

--
Elizabeth McCarthy
Editor
California Current - *Your Energy Source*
www.cacurrent.com

Consent Based Siting

From: Mdc
Sent: Tuesday, April 26, 2016 8:15 PM
To: Consent Based Siting
Subject: Re: Sacramento Consent-based Siting Webcast --not working

Thank you. I attempted the web link and did register, but here is what I see when I click on the link.

Perhaps you can get this resolved for the next meeting. I have only been able to call in, but have no visuals.



Consent-Based Siting Sacramento, CA

Check back on Tuesday April 26, 2016 at 5pm PDT to join the live Webcast. During the webcast, participants will be able to type questions for panelists as part of the Q&A session. Please reference the meeting agenda [here](#).

Visit energy.gov/consentbasedsiting for the latest updates and information. To learn more about consent-based siting, refer to our [informational booklet](#).

The Department will host a public meeting on consent-based siting on April 26th in Sacramento at the Holiday Inn Capitol Plaza. The purpose of the consent-based siting public meeting is to hear from the public and interested stakeholders on what matters to you as the Department of Energy moves forward in developing a consent-based process for siting the facilities needed to manage spent nuclear fuel and high-level radioactive waste. The agenda includes a presentation from the Department of Energy's Acting Assistant Secretary for Nuclear Energy, John Kotek. Mr. Kotek will discuss the nuclear energy activities that have brought us to this point, as well as describe the Department's vision for an integrated waste management system and the need for a consent-based approach to siting. This presentation will be followed by a panel session with several experts providing diverse perspectives on the primary issues that need to be resolved in the design and implementation of a consent-based process. Participants will then have the opportunity to comment or ask questions to the Department and the panelists.

Following this session, there will be facilitated small group discussions on a variety of topics related to consent-based siting and integrated waste management. These small group discussions will provide the opportunity for participants to engage more closely on topics of interest to them. The Department intends for these small group discussions to be frank and open sessions on key topics that will inform

Marcia D. Castellani

On Apr 22, 2016, at 10:25 AM, Consent Based Siting <consentbasedsiting@hq.doe.gov> wrote:

Hello Ms. Castellani,

The direct webcast link for the consent-based siting meetings is <http://consentbasedsitingwebcast.azurewebsites.net>. Feel free to share the link with neighbors and colleagues.

Thank you for your recommendation on remote participation in the consent-based siting public meetings. We are livestreaming each of the eight public meetings. Remote participants can view everything except the small group facilitated discussions (due to logistics) and can type questions for the panelists during the Q&A session. The next meeting is on Tuesday, April 26th at 5pm PDT. For more information, please visit <http://energy.gov/consentbasedsiting> and <http://energy.gov/ne/activities-and-events>.

We hope you'll be able to participate!

Thanks,
The Consent-Based Siting Team

Consent Based Siting

From: Elizabeth McCarthy
Sent: Tuesday, April 26, 2016 2:00 PM
To: Consent Based Siting
Subject: Re: Consent Based Siting Public Meeting in Sacramento

Thanks

On Tue, Apr 26, 2016 at 10:59 AM, Consent Based Siting <consentbasedsiting@hq.doe.gov> wrote:

Yes, here is the webcast link <http://consentbasedsitingwebcast.azurewebsites.net>

From: Elizabeth McCarthy
Sent: Tuesday, April 26, 2016 1:56 PM
To: Consent Based Siting
Subject: Consent Based Siting Public Meeting in Sacramento

Is the meeting being webcast or available remotely?

--
Elizabeth McCarthy
Editor
California Current - *Your Energy Source*

--

Elizabeth McCarthy
Editor
California Current - *Your Energy Source*

Consent Based Siting

From: William Gloege
Sent: Tuesday, April 26, 2016 1:51 PM
To: Consent Based Siting
Subject: Response to the IPC

Below are responses to DOE questions to citizens associated with the April 26, 2016 Sacramento meeting:

For Sacramento DOE Consent-Based Waste Siting meeting April 26, 2016

1. How can the Department ensure that the process for selecting a site is fair?

Insure wide spectrum of community input by selecting unbiased community members on the subject of nuclear power

Insure all interested community organizations are notified far enough in advance of meetings to plan to participate. Do this by prior research of community organizations.

2. What models and experience should the Department use in designing the process?

Consult with government and private sources to find out what unique mechanisms the state, counties and local government have already in place to achieve fair and unbiased hearings. These kinds of hearings and programs happen constantly at the local, regional and state level. This wheel has been invented - find the best existing models for each hearing area and employ the best.

3. Who should be involved in the process for selecting a site, and what is their role?

See No. 2 answer. Previous, historic processes for arriving at a fair, unbiased decision on such a matter as consent based waste siting will provide the answer. Again, research specific to the area by DOE is required.

Avoid pitfalls we see in the present hearing whereby one side of the issue - anti nuclear protesters - are favored and those wanting to facilitate continuation and expansion of the energy source have been neglected.

4. What information and resources do you think would facilitate your participation?

A full, fair and unbiased evaluation of the value and contribution of nuclear power is the basic underlying framework needed for such a consent based siting meeting. Only in the full context of the value of what we are trying to preserve and facilitate - nuclear reactors - can we properly evaluate and facilitate an outcome that will place highest value on benefits government is obligated to honor - the benefit of the people.

5. What else should be considered?

Related to No. 4 above, the talks should be carried out with realization we are trying to facilitate a power source vitally important to fighting America's and the world's most threatening challenge of all time - global warming. Only by setting waste siting talks in this true context can we address the importance of the outcome for the well being of the people and the planet.

One more issue needs to be addressed, and one that may facilitate attracting communities to participate.

Spent nuclear fuel from today's reactors is ready fuel for new generation reactors which are close to commercial introduction.

The DOE should conduct research to quantify the estimated **future value** of this spent fuel which has only had 2% of its energy extracted. Informing potential waste site communities of the future value of the waste may enhance their joining the program.

Thank you.

William Gloege

CGNP.org

Consent Based Siting

From: John Heaton
Sent: Monday, April 25, 2016 5:38 PM
To: Consent Based Siting
Cc: Kotek, John
Subject: Consent Based Siting Questions
Attachments: ELEA-Holtec Consent Based Siting Questions Mtg 1-20-16.docx

Sir/Madam:

Please note that this paper should only be attributed to me, John A. Heaton. Thank you for reviewing it, and I hope it adds to your insight of the issue.

John Heaton

DOE Consent Based Siting Questions

How can the Department ensure that the process for selecting a site is fair?

Consent based siting seeks to ensure fairness in the distribution of costs, benefits, risks and responsibilities now and in future generations. How, in your view, can fairness be best assured by the process for selecting a site?

- a. Fairness depends to some degree, on how many sites you will choose, and the rigor of the process you use to award contracts. Every item in an RFP should be grounded in fact with absolutes in terms of points awarded. Arbitrary “quality” features should be eliminated to the extent possible. It would seem the realistic backdrop to this pursuit is that there will only be a few candidates, at the most, that will engage to the point of reaching a state contract with a governor. Again, being realistic, a local jurisdiction is the point to begin, but ultimately it will be the governor or state that will make the final decision. The state will be the final arbiter and should not be minimized or forgotten in the process.
- b. In fairness, you should make the decision right up front as to whether DOE is going to own the facility or whether you expect the facility to be developed by a private company. We should be clear about the fact that a private facility, although it must obtain state permits to operate and must subject itself to regulatory oversight by the state and NRC, generally is not subject to the political and social pressures a federal agency would have to endure. No doubt a private company would be subject to the NEPA process and NRC regulatory control, but the NRC is a scientific body that deals in facts, and has little to do with the political process in its decision making.
- c. Also, a decision should be made as to whether you intend to have more than one pilot facility, because if you limit it to one you will be eliminating committed sites and states, who will have gone through a rigorous and gut wrenching political process, and probably will never volunteer again.
- d. DOE should release funds immediately for the purpose of supporting willing communities, counties, consortium of regional entities, and states to educate their populations. Without the financial where-with-all to be able to educate the

stakeholders and elected officials, if one state is already more in a position to be more accepting, a breach of fairness and equal opportunity is lost. In order to achieve a consent-based decision making process, it is incumbent upon the DOE to provide funding that would allow stakeholders and state elected officials to educate themselves on the technical, business, and regulatory issues surrounding the potential hosting of a CISF. The GNEP process could be used for funding.

- e. Consensus and consent will mean many different things to every community, coalition, region and state. Consent for one community may be a city council vote of support, and another may want a community referendum, and yet another may defer to the mayor. Many different opinions will exist at the state level as well. One may believe an act of the legislature is consent, another may believe the governor can give consent, another may think the AG can elicit consent, and yet another may want a state-wide referendum. The point here is that DOE should not define what consent for a state is, but at the end of the day it must require a governor to sign an agreement with DOE to prevent what happened in Nevada from ever happening again.
- f. An RFP is the customary process for competing a contract that ensures head to head competition. However, when all the steps or phases of site acceptance by DOE are complete, it will be the “Host Agreement” or the conditions a state will demand that will be the final bargain to compare, as well as, the robustness of the storage system and its diversity.
- g. DOE can create fairness of competition by eliminating the distractions from the robustness of the facility and actual bid cost. Such items as defining economic and monetary incentives to the community and to the state, right up front, would level the playing field. By giving states and communities a “take it or leave it benefit” they would know up front what their reward for assuming responsibility for the nation’s UNF would be. Another distraction is transportation. The facility should know whether DOE is going to be responsible for loading, developing routes, providing transport casks, rail cars, scheduling, first responder support and transporting UNF or whether it will be in the contract or be a

- separate contract. Obviously, a company able and willing should be able to bid on that contract as well.
- h. Fundamentally, DOE must make it clear as to what their final agreement expectation must be from their perspective. Is it a governor agreement, and exactly what is expected from the government's point of view, and then states and communities will superimpose their desires and concerns into the agreement.
 - 2. Criteria for selection must be absolutely clear so the competition is not left to some arbitrary decision. The contents of the 4 or 5 filters you use must be detailed, transparent and done in specific phases:
 - a. Phase I Preliminary Phase DOE must develop specific siting criteria reflecting NRC licensing requirements for all siting considerations. If the community and state wish to go forward after fulfilling the requirements of Phase I it would trigger the release of funds by DOE for the development of broader education, consent and site evaluation. This first phase should be used to test whether or not general technical, geologic, social, political basic criteria are met that appear to make the site acceptable, such as:
 - i. Filter 1: Technical specifics of the site criteria including; seismic limitations, specific geo-technical requirements, archeological standards, ESA standards, etc.
 - ii. Filter 2: Geographic specifics as to distance from a community, distance from river, lake or other body of water, overhead air traffic, National Parks, State Parks, proximity to potential repository (define it), etc.
 - iii. Filter 3: Basic utility access and access to transportation capabilities within reasonable distances, such as, water, electricity, telecom, highway, heavy haul roads, and a minimum rail class.
 - iv. Filter 4: Basic community or region support to be defined by counties developing the project and resolutions of support from the elected bodies of the counties and cities within 40 miles of the project.
 - v. Filter 5: The provision of independent environmental monitoring must be available to ensure there are no releases and the site radiation integrity is maintained.
 - vi. Filter 6: A letter of support by the governor of the state where the project is located stating their support, and the general conditions under which, if the site proves its geo-

technical capability and health, safety, environmental, oversight, financial assurance and economic benefits to the state were met, would agree to subsequently contract with the Federal Government. This would be general and non-binding.

- b. Phase II: Proof of site's geo-technical siting considerations, geography and other technical issues. This would be triggered by the completion of the "Filters" in Phase I, and DOE would then provide funding to do a further in-depth review through a contract issued by DOE to definitely confirm the site qualifications to meet NRC licensing standards for an application preparation and any state requirements.
- c. Phase II would also require more funding provided by DOE to broaden the educational process in the state for consent.
- d. It would also provide funding to begin further contract development by the state to create a "consent agreement" with DOE. DOE would provide funding to engage the state in the development of a contract document or "host agreement" between the parties. Parties would be defined as Community, Governor and any affected Native American tribes.
 - i. Filter 1 Scientific investigation of the site to confirm that it meets all the standards for a license application to the NRC.
 - ii. Filter 2 Identification of all state licenses, permits and other regulatory oversight to assure the site and project can qualify for all state oversight obligations or authorities.
 - iii. Filter 3: A formal statewide or other educational program as required by the governor, local entities and other parties to develop consensus or secure defined level of support for the project as determined by local, state, Native American tribes and others to develop support. A basic "consent agreement" would be the basis from which discussions would occur to develop the final Agreement. This would conclude in satisfactory support being achieved by the parties to endorse the project and sign an agreement with DOE.
 - iv. Filter 4: The development of an Agreement between the governor, local entities and any Native American tribes,

the federal government and a private project entity outlining the conditions for hosting the project.

- e. Phase 3: This phase is the completion of the agreement with the participating parties and the federal government. Final consummation of the Agreement would not occur until affirmation of the Agreement by Congress. Essentially, through self-elimination, only those states that have completed an agreement are eligible for consideration as a site. At this point, a formal RFP would be generated by DOE and then the participating entities would respond with their system design, characteristics, capabilities, charge per ton of stored UNF on an annual basis, and any other requests in the RFP, as well as, their state and local contractual “Host Agreement.” Upon awarding one or more contracts, agreements would then be consummated by the parties and affirmed by Congress.

3. Points of Concern

- a. How does DOE expect to go forward without an appropriation?
- b. How does DOE expect to complete a CISF without Congressional action to eliminate the restrictions on Interim Storage of the 1987 amendments to the NWPA?
- c. No state will rely on a contract without Congress affirming the contract to ensure payment?
- d. Will DOE define consent for states and locals?
- e. What will “consent” be for DOE?
- f. Will different contracts be issued for the site and for the operator or will it be a separate contract?
- g. Will DOE fund design, construction and licensing or is the expectation that those costs would be amortized in the charges?
- h. Is it clear that DOE will take possession of the waste and liability?
- i. How will you deal with a private industrial developer?
- j. What if the site or the canisters cannot be re-licensed at the expiration of their license?
- k. What is the disposition of the UNF, HLW and GTCC if DOE is unable to open a permanent repository?
- l. How can linkage between a CISF and a repository be addressed?

- m. Should a caveat occur in a contract that will require DOE to provide a fuel pool and equipment for handling and repackaging of fuel when a canister can no longer be licensed if there is no repository?

What models and experience should the Department use in designing the process?

The challenges and opportunities of site selection drive us to continue to learn from previous or ongoing examples. From your perspective, what experience and models do you think are the most relevant to consider and draw from in designing the process for selecting a site?

1. The Yucca Mountain project, Private Fuel Storage, MRS and other U.S. efforts seemed to have failed because of lack of state support even though local support was significant. Consent processes in England, Japan and Canada seem to have significant problems. Sweden and Denmark are moving forward and are now close to the finish line. The political structure of those two countries has made it possible for communities to step up without the interference of states or other political sub-divisions, as exists in the U.S. France is also moving forward, but has an approval process in 100 years that may foil the process? WIPP is the only real success story in terms of a completed and active waste disposal facility. WIPP had no consent agreement. It had a number of oversight organizations that were both pro and con that allowed interveners, supporters, scientific investigators, politicians and others to vent their positions or put forth their questions which seemed to allow it to move forward. However, it was Carlsbad, the host community that really kept it from faltering. They fought hard every day to keep it moving in spite of furious odds. All the questions were finally asked and the answers provided. Only the people that had a basic, unsubstantiated opposition to anything nuclear were left. In the final analysis the state was dragging its feet in its permitting activity, but there was an answer to opening through moving non-RCRA waste into WIPP, and that scared the state into permitting it. This was a 30 year process, and we wouldn't think anyone would want to endure a process that lengthy. But maybe using C&C agreements, independent oversight critics, legislative oversight committees and other similar groups that give all parties access to the debate and reasonable input as the project develops,

creates an educational component and scientific component to allow a project to move forward. The real question is whether, in the case of Yucca Mountain, after spending \$15 billion will the project ultimately be viable with the public. This lack of an agreement, which should be based on NRC approval of a license or what ever is agreed to as the basis for opening, most assuredly creates the need for an agreement.

Who should be involved in the process for selecting a site, and what is their role?

The Department believes that there may be a wide range of communities who will want to learn more and be involved in selecting a site. Participation in the process for selecting a site carries important responsibilities. What are your views on who should be involved and the roles participants should have?

1. Cities, counties and Native American tribes' governing bodies represent their constituencies, and they should take the lead in identifying a site, developing public support through the multiple avenues of outreach to fulfill Phase 1 criteria. Once public consensus is reached, resolutions of support should then be acted upon by the entities. Selecting a site will be self-selecting to a large degree if the criteria for a site is laid out properly to meet NRC requirements. The socio-political aspects are much more difficult and ultimately it has to be about generating state support and achieving a contract with the state.

What information and resources do you think would facilitate your participation?

The Department of Energy is committed to ensuring that people and communities have sufficient information and access to resources for engaging fully and effectively in siting. What information and resources would be essential to enable you to learn the most about and participate in the siting process?

1. Knowing siting criteria.
2. Knowing what contractual agreement criteria from the federal government that will be required.
3. Knowing if a state agreement will be required, and what elected official will be required to sign it?

4. Knowing what the benefits to the state and region will be right from the beginning. If they are part of the bid process the state and region can have no confidence of any financial benefits accruing to them, and will view it as too risky to participate.
5. Knowing there are no legal barriers to creating a operating facility, such as, the 1987 amendments to the NWPA.
6. Knowing that funding from Congress is automatic and ongoing.
7. Knowing what DOE's responsibilities will be to operate or provide services, and what they are not.
8. Funding for media, speakers, travel, first responders and outreach.
9. Are the same transportation policies going to prevail as for Yucca, e.g., choice of rail, routing, dedicated trains, 180c support, etc.?
10. Status of the SNF in transport; who has the license for it, who is liable for it, responsibility for advanced notifications, etc.?
11. Who will have responsibility for getting states and communities along the transportation routes to "consent?"

What else should be considered?

The questions posed in this document are a starting point for discussion on the design of the process for consent-based siting of nuclear waste facilities, the Department of Energy would like to hear about and discuss any related questions, issues, and ideas that you think are important.

1. DOE has significant amounts of HLW, some vitrified and some not, as well as spent fuel. DOE move this material and its funding automatically to the chosen site to assure the site has adequate usage. DOE has the responsibility to develop facilities and the least it can do is participate in a facility.
2. Clearly a private public partnership should be considered whereby DOE takes possession of the waste, liability for it and then pays a private facility to store it.
3. The Waste Fund bonds will never be sold, and it is therefore incumbent on DOE to reinstate the charge which would be kept by the utility to pay for its offsite storage. Those utilities that are out of business and only have a decommissioned facility would have to rely on a certain percentage of the fee going directly to a trust fund managed by the utilities to pay for their storage costs. This, also, may require rescinding provisions in the 87 amendments to the NWPA to allow Waste Fund money to be used for Consolidated Interim Storage.

4. Placing Waste Fund money under the jurisdiction of a Federal Corporation to run the program and not be subject to appropriations.
5. Consider Waste Fund money collected by a utility to be used by the utility itself for resolving its own interim storage or repository problems with the Federal Government assuming possession and liability of the waste.

Consent Based Siting

From: Joni Arends
Sent: Sunday, April 24, 2016 2:03 PM
To: Consent Based Siting
Subject: Re: Background Information for Sacramento Consent-based Siting Meeting

Hi,

I printed out the informational booklet and found inconsistencies. Please reformat the pdf so that pages 1 and 2 and 4 through 7 and other pages not listed below can be printed out to reflect what is on the screen. Only 1/4 of the page may be printed on the page.

Nevertheless, pp. 8, 10, 12 through 15, 18, 23, 27 print out properly.

Please double check the font on the End Notes as it is not a common font - and as a result, does not print out properly.

Will there be copies available at the Sacramento meeting? If so, please hold two of them for me. Thank you.

Sincerely,

Joni Arends, CCNS

On 4/20/16 12:20 PM, Consent Based Siting wrote:

Hello,

Thank you for registering to discuss consent-based siting in Sacramento on Tuesday April 26th or on the web. We look forward to hearing your thoughts at the meeting, and during the open houses.

We put together an informational booklet to help frame the issues associated with developing a consent-based process for siting facilities needed to store, transport, and dispose of spent nuclear fuel and high-level radioactive waste.

<http://energy.gov/sites/prod/files/2016/04/f30/Consent-Based%20Siting%20Booklet.pdf>

Other informational materials including the agenda, speaker biographies, and posters are listed here:

<http://energy.gov/ne/downloads/meeting-materials-consent-based-siting-public-meeting-sacramento-april-26-2016>

Thanks again for your interest and hope to see you in Sacramento on Tuesday April 26th or online.

-The Consent-based Siting Team

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Joni Arends, Executive Director
Concerned Citizens for Nuclear Safety

www.nuclearactive.org

Consent Based Siting

From: Kirk Gothier
Sent: Friday, April 22, 2016 1:47 PM
To: Consent Based Siting
Cc: Gene Nelson; William P Gloege; Michael Shellenberger
Subject: DOE Consent Based Siting Comments

Please consider the following comments, in response to the Department of Energy (DOE) invitation to provide “input on important considerations in designing a fair and effective process” for “Consent Based Siting” of “our nation’s spent nuclear fuel and high-level radioactive waste.”

My comments are based on 40 years of local agency Community Development experience, 20 years owning and operating a small business, and 5 years volunteering to help develop all clean power technologies.

Comments:

The DOE invitation to “Join the Conversation” must clarify that this “Conversation” will be driven by:

1. Scientific Consensus: <http://www.pewinternet.org/interactives/public-scientists-opinion-gap/>,
2. The EPA Clean Power Plan “all of the above” energy strategy:
<https://www.epa.gov/cleanpowerplan/fact-sheet-clean-power-plan-opportunities-nuclear-power>,
3. DOE programs supporting Small Modular Reactors and siting requirements:
<http://www.energy.gov/ne/nuclear-reactor-technologies/small-modular-nuclear-reactors>,
4. Clarification that this nuclear fuel is not “spent”: <http://www.nei.org/Issues-Policy/Nuclear-Waste-Management/Recycling-Used-Nuclear-Fuel>,
5. Support for identification of a clear path towards compliance with all national, state and local emission mandates: http://docketpublic.energy.ca.gov/PublicDocuments/15-IEPR-11/TN205398_20150719T170914_Kirk_Gothier_Comments_Kirk_Gothier_Comments_on_Climate_Adaptati.pdf, and
6. Identification of ministerial performance standards, based on a clear comparison of the risks and benefits of all energy producing technologies: <https://www.epa.gov/risk/human-health-risk-assessment> <https://www.regulations.gov/#!documentDetail;D=NRC-2015-0057-0010>.

Our “ultimate energy source” is nuclear power from the sun, and the huge exponent in Einstein’s elegant equation provides all the guidance we need to deliver clean air and water, sustainable communities and prosperity, for billions, forever...

Unfortunately, industrial and special interest groups continue to oppose this strategy, while billions live in poverty and tens of millions die each year from energy poverty and air pollution:
<http://instituteforenergyresearch.org/analysis/eia-forecast-fossil-fuels-remain-dominant-through-2040/>
<http://www.who.int/mediacentre/news/releases/2014/air-pollution/en/>
<http://www.unmillenniumproject.org/documents/3-MP-PovertyFacts-E.pdf>.

Until we identify a clear path towards compliance with all emission mandates, the poverty, health impacts and deaths will continue...

--

Kirk Gothier
Senior Planning Advisor

Consent Based Siting

From: Elizabeth McCarthy
Sent: Friday, April 22, 2016 1:07 PM
To: Consent Based Siting
Subject: will the consent based nuclear meeting in Sacramento be webcast?

--

Elizabeth McCarthy
Editor
California Current - *Your Energy Source*

www.cacurrent.com

Consent Based Siting

From: Br Edmund ssf
Sent: Friday, April 22, 2016 7:51 AM
To: Consent Based Siting
Subject: Nuclear Waste - Response

May I as a former Particle Physicist simply offer a comment?

Back in the '70's High -level waste was due to be dumped in the Cheviot Hills, UK. Many of us were deeply concerned (a) that vitrification was an ad hoc and un-tried method; (b) that in a small fraction of the time scale involved (1/4 M years) seepage into surface water was inevitable; (c) that geological survey was incomplete.

We had the endorsement of Prof Martin Ryle, FRS, and were told our logic made very good sense.

Thankfully, the whole scheme was dropped.

More importantly, a time-bomb, un-touchable, precipitate, crazy, for future generations on earth to endure, was avoided.

Gentlemen, think of your children's children. Dick Feynman said it: "Science is not fooled."

Sincerely,

Edmund ssf

Consent Based Siting

From: William P Gloege
Sent: Thursday, April 21, 2016 3:16 PM
To: Consent Based Siting
Subject: Sacramento Consent Based Siting

Dear Department of Energy,

Will there be opportunities for citizen representatives to speak at this meeting on 4/28/16?

If so, what is the format? How long may we speak?

Thank you for your help in understanding the opportunities for citizens to participate in this important meeting.

William Gloege
Santa Maria, Ca

Consent Based Siting

From: Eduardo Garcia
Sent: Thursday, April 21, 2016 1:30 PM
To: Consent Based Siting
Subject: Wastes.....?
Attachments: RE_Présidence de la République.eml; residuesDocumento.rtf

Materials and waste

My vision is in the patent that have been achieved in France and sent them to their analysis grant me your opinion because the opinion of President Chirac and President Obama is very safe and want to protect well these dangerous products not be reached by inescrupolosos evil people.

By increasing and largely dissolve the dangers are less and so very long term we completely avoid the alienation of radioactive.

The permanent containment method is very safe as it previously has remained stable without CONTENT come to the surface for millions of years.

Nuclear safety and energy industry seek to reassure people concerned with reason today waste deposited in temporary locations and procupa us all.

For this reason I have come to patent the safe confinement for millions of years and dissolve the products to the maximum because the capacity of shelters for is more than very large so we achieve the mission proposal.

I want to be at that meeting and express my patent work so we can fix what ails us.

One proposal is to Yucca,, that there should be very safe to install several nuclear power plants for energy, geographically it is a very good place for your country.

It takes a waterway to complete the construction of the power nuclear system.

Please do forward accordingly, if need not be for you this message.

Eduardo Garcia
Technical
(I speak Spanish)

Consent Based Siting

From: Présidence de la République
Sent: Wednesday, December 24, 2003 8:14 AM
To:
Subject: RE:Présidence de la République



Cher Monsieur,

Le Président de la République française m'a confié le soin de répondre à votre message.

Croyez bien que Monsieur Jacques CHIRAC apprécie le souci d'information et d'échange dont votre correspondance porte témoignage.

Je puis vous assurer qu'une attention toute particulière a été portée à votre projet.

Bien cordialement.

Le Chef adjoint de Cabinet
Gérard MARCHAND

Monsieur Eduardo Daniel
GARCIA

BUENOS AIRES
ARGENTINE

*Neutralisation Dechets Nucleaires
Demande de Brevet d` invention
Déposée le 16 Avril 1997 sous le N° 97 04683
Titulaire: Eduardo D.García*

"PROCEDE DE NEUTRALISATION DE DECHETS DANGEREUX ET / OU NUCLEAIRES"

La présente invention est destinée à la neutralisation des déchets très dangereux et / ou nucléaires.

Actuellement, ces déchets sont stockés dans des dépôts ou décharges qui ne sont ni stables, ni permanents, ce qui les rends dangereux dans le futur.

La présente demande de brevet a pour objet un procédé qui est donc destiné à annuler les inconvénients de ces stockages.

Pour ce faire, nous proposons d` utiliser les anciens puits de pétrole ou de gaz, et d` injecter, dans l`un au moins de ces puits, des déchets dangereux, de préférence par le même conduit qui servait à extraire le pétrole ou le gaz, puis de sceller le ou les conduits d` injection, de préférence avec du béton.

Le procédé de neutralisation de déchets dangereux et / ou nucléaires de l`invention se caractérise donc en ce qu`il consiste à injecter lesdits déchets par au moins un conduit dans au moins un ancien puits de pétrole ou de gaz, puis à sceller chaque conduit d` injection.

Avantageusement, il consiste à utiliser, comme conduit d`injection, le même conduit ayant servi à extraire le pétrole ou le gaz.

Avantageusement en outre, il consiste à sceller au moins un conduit d` injection de déchets avec du béton.

Pour la plupart de ces déchets, il s`agit donc d` un retour à la source, donc écologiquement justifié.

Les hydrocarbures ou gaz d` hydrocarbures ou naturels ayant séjourné pendant des millions d` années dans ces poches, il n` y a pas de raison objective de craindre une dégradation des conditions de stockage.

Il y a lieu toutefois de réaliser une étude approfondie de la géologie du site avant son utilisation, en recherchant le plus grande profondeur possible.

L` invention a enfin pour but l` application des anciens puits de pétrole ou de gaz au stockage des déchets dangereux et / ou nucléaires dans l` un au moins de ces puits.

REVENDICATIONS

1. Procédé de neutralisation de déchets dangereux et / ou nucléaires, caractérisé en ce qu` il consiste à injecter lesdits déchets par au moins un conduit dans au moins un ancien puits de pétrole ou de gaz , puis à sceller chaque conduit d` injection.
2. Procédé selon la revendication 1, caractérisé en ce qu` il à utiliser, comme conduit d` injection, le même conduit ayant servi à extraire le pétrole ou le gaz.
3. Procédé selon l` une des revendications 1 et 2, caractérisé en ce qu` il consiste à sceller au moins un conduit d` injection de déchets avec du béton.
4. Application des anciens puits de pétrole ou de gaz, caractérisée en ce qu` elle consiste à stocker des déchets dangereux et / ou nucléaires dans l` un au moins de ces puits.

" PROCEDE DE NEUTRALISATION DE DECETS DANGEREUX ET / OU NUCLEAIRES "

ABREGE

Le procédé de neutralisation de l` invention consiste à injecter des déchets dangereux et / ou nucléaires par au moins un conduit dans au moins un ancien puits de pétrole ou de gaz, puis à sceller chaque conduit d` injection.

Application à la neutralisation de déchets dangereux et / ou nucléaires.

Consent Based Siting

From: Marcia D Castellani
Sent: Thursday, April 21, 2016 12:08 PM
To: Consent Based Siting
Cc: Jackson, Bartlett
Subject: Public Meeting Options

Hello Mr. Jackson,

I am wondering if you have considered making citizen participation in these meetings via "WebEx" or "GoToMeeting".

An issue this important should involve as many citizens as possible, and wonder if you can make arrangements for this at upcoming meetings.

I think you will have better management and ownership of this issue, if you do.

A concerned citizen,

Marcia D. Castellani, P.E.
Environmental Engineer
Global Environmental Policy

Consent Based Siting

From: William P Gloege
Sent: Thursday, April 21, 2016 12:49 AM
To: Consent Based Siting
Subject: Nuclear waste siting - California

Dear DOE,

Did you consider that nuclear waste will have value, maybe a lot of value, with new generation reactors?

Entities accepting a waste site could profit in the near future as some of these new designs are very close to market.

This fact might change acceptability of accepting waste for some communities.

William Gloege
Santa Maria, Ca

Consent Based Siting

From: kevin blanch
Sent: Wednesday, April 20, 2016 3:44 PM
To: Consent Based Siting
Subject: Re: Background Information for Sacramento Consent-based Siting Meeting

thank you i am coming all the way from utah, as a AML LEUKEMIA victim, the issue of the waste can not be ignored any longer i look forward to meeting all of you

On Wed, Apr 20, 2016 at 1:20 PM, Consent Based Siting <consentbasedsiting@hq.doe.gov> wrote:

Hello,

Thank you for registering to discuss consent-based siting in Sacramento on Tuesday April 26th or on the web. We look forward to hearing your thoughts at the meeting, and during the open houses.

We put together an informational booklet to help frame the issues associated with developing a consent-based process for siting facilities needed to store, transport, and dispose of spent nuclear fuel and high-level radioactive waste.

<http://energy.gov/sites/prod/files/2016/04/f30/Consent-Based%20Siting%20Booklet.pdf>

Other informational materials including the agenda, speaker biographies, and posters are listed here:

<http://energy.gov/ne/downloads/meeting-materials-consent-based-siting-public-meeting-sacramento-april-26-2016>

Thanks again for your interest and hope to see you in Sacramento on Tuesday April 26th or online.

-The Consent-based Siting Team

Consent Based Siting

From:
Sent: Wednesday, April 20, 2016 11:47 AM
To: Consent Based Siting
Subject: Response to IPC

With 43 states in the crosshairs of the mobilization of nuclear waste, I'm pleading that you think carefully about this proposal. The dismantling of nuclear waste plants to move "orphaned" or "stranded" irradiated nuclear fuel opens doors for contamination, accidents, and irreparable damage to the land and its inhabitants. Also, no thought is given to toxins present in soil, groundwater, fauna and flora, even after astronomically expensive "clean-up" is "complete".

Nancy Chismar USA

Consent Based Siting

From: Ann-Eve Hazen
Sent: Sunday, April 17, 2016 8:15 PM
To: Consent Based Siting
Subject: Response to IPC

Yes, please move as fast as possible to move the nuclear fuel to a temporary storage in a remote place. It is too dangerous to have in this area of San Onofre with six million people surrounding it and near a fault line.

Ann-Eve Hazen
Sent from my iPhone

Consent Based Siting

From: Allison Ostrer
Sent: Sunday, April 17, 2016 3:30 PM
To: Consent Based Siting
Subject: Response to IPC

I am a citizen, voter, taxpayer and business owner, and I demand an end to the production of nuclear waste and the securing the existing reactor waste in hardened on-site storage.

Sincerely,
Allison Ostrer
Seattle, WA

Consent Based Siting

From: Mark M Giese
Sent: Friday, April 15, 2016 1:38 PM
To: Consent Based Siting
Subject: "Response to IPC" [Invitation for Public Comment]

Concerning nuclear waste, please stop the idea of having essentially industry and government Mobile Chernobyls and parking lot dumps.

Thank you.

--Mark M Giese

Consent Based Siting

From: T Cassidy
Sent: Friday, April 15, 2016 12:31 PM
To: Consent Based Siting
Subject: Nuclear waste siting

Nuclear power is a legacy of the "magical" belief in novel, poorly understood technologies; the magic bullets which will save us from ourselves, if only they fully materialize in the nick of time. Storage of nuclear waste with extraordinary half lives that contaminate for eons is a problem from an industry the basic physics of which we little understand, though we know how to cause great destruction with it, both purposely and unintentionally. Wisdom in such a situation would dictate the precautionary principle be applied before undertaking ill-considered schemes to move/transport problems of its waste storage to areas which can't politically resist or are so desperately poor they will take even poisoned fruit to maintain their beggarly existence. Such devious magical thinking should not be a part of a Siting Plan which realistically must address evident and likely problems as well as provide rational solutions based on sound economics and competent science, not influenced by industry propaganda or venal legislators who have profited remarkably from ties to such a highly capitalized and economically insulated industry that itself is a product of the gargantuan military industrial clique which places all at risk while claiming to protect all from risks which never are to be resolved. Even should such an ill conceived and poorly crafted plan be enacted the risks of accident in transport or relocation have caused even the most ardent industry activists to hesitate to put such a scheme into practice when previously proposed. The old saw applies: there are three types of people, the wise are those who learn from the mistakes of others, the common are those who learn from their own mistakes, the remainder are those who actively make mistakes. Your agency must choose to be wise rather than active in dealing with siting of nuclear waste.

Consent Based Siting

From:
Sent: Thursday, April 14, 2016 11:50 PM
To: Consent Based Siting
Subject: Nuclear waste

To: Department of Energy

I disagree with Edison when they say their plans for storage at the facility are safe and do not pose any threat to the public. I understand they are using thinner and less expensive storage casts rather than purchasing the thicker higher quality more costly ones that are used worldwide. Those of higher quality should be the only option.

As a resident in nearby San Clemente I trust you will do whatever necessary to keep us safe--even removing the waste from the area if that is possible.

As our area is subject to earthquakes and even a terrorist attack our view should be heard and addressed. We should have our concerns addressed here in Orange or San Diego counties rather than just one In Sacramento. Please consider more than one hearing on this important subject.

Thank you for your attention.

juniel Worthington

Consent Based Siting

From: Vinu Arumugham
Sent: Thursday, April 14, 2016 10:15 PM
To: Consent Based Siting
Subject: Response to IPC

Stop generating nuclear waste. That is the fix. Dumping nuclear waste all over the country is COMPLETELY UNACCEPTABLE.

Consent Based Siting

From: james talbot
Sent: Thursday, April 14, 2016 5:31 PM
To: Consent Based Siting
Subject: Response to IPC

I am against Consent-based Siting as well as any and all use of nuclear power.
It is a time bomb with no recourse and must be phased out.
Please think of your children and your grandchildren and quit trading their futures to enrich the 1%.
Thanks but no thanks,
James Talbot
Austin TX

Consent Based Siting

From: lee zucker
Sent: Thursday, April 14, 2016 5:01 PM
To: Consent Based Siting
Subject: Response to IPC

We have read that as early as 2021 DOE hopes for approval of the first of one or more parking lot dumps for radioactive waste at such sites as Waste Isolation Pilot Plant, New Mexico, other DOE sites, Native American reservations, and/or nuclear power plants such as Dresden in Illinois. We see this as the tip of an iceberg that could open the way to untold numbers of future Chernobyls and Fukushimas, and could even lead to "bombs on wheels" on our roads, rails, waterways.

Knowing that no safe, permanent solution has yet been found anywhere in the world for the nuclear waste problem, and that in the U.S., the only identified and flawed high-level radioactive waste deep-repository site (Yucca Mountain, Nevada) has been canceled, we urge you to end production of nuclear waste and secure the existing reactor waste in hardened on-site storage.

American health and lives should trump all other considerations when past tragedies are taken into account.

Zucker family

Consent Based Siting

From: Judi Poulson
Sent: Thursday, April 14, 2016 4:44 PM
To: Consent Based Siting
Subject: Response to IPC

Please no radioactive waste dumps/Mobile Chernobyls.

Thanks.

Judi Poulson

Consent Based Siting

From: Carol Joan Patterson
Sent: Thursday, April 14, 2016 4:32 PM
To: Consent Based Siting
Subject: No nuclear dumps!

I oppose the bill that includes a pilot program for consolidated nuclear waste storage, introduced by U.S. Senator Lamar Alexander and ranking member U.S. Senator Dianne Feinstein. By as early as 2021, DOE hopes to ram through approval for the first of one or more parking lot dumps, targeted at such additional sites as Waste Isolation Pilot Plant, New Mexico, other DOE sites, Native American reservations, and/or nuclear power plants such as Dresden in Illinois. This would launch unprecedented thousands of Mobile Chernobyls, Floating Fukushimas, and Dirty Bombs on Wheels, onto the roads, rails, and/or waterways of most states. Thank you for considering my comments.

Carol Joan Patterson

Consent Based Siting

From: Mary Olson
Sent: Thursday, April 14, 2016 12:23 PM
To: Consent Based Siting
Cc:
Subject: RE: Chicago meeting recording--DOE query

THANKS! I was in Atlanta, so I don't have feedback on the quality of on-line participation this week...but the Chicago meeting was really BAD for callers. We really appreciate you offering the remote attendance! We think it is wonderful that people can listen / watch...but due to poor management of the service, we often COULD NOT hear.

Your staff has, or should have, the ability to MUTE all lines. It needs to be done.

Then, if you are going to take any verbal communication, most call services have a mechanism to "raise your hand" and un-mute at that time.

During Chicago session there were several side conversations among people who were NOT listening at all to your session and therefore did not hear any of us asking them to mute their own line. There were barking dogs (yes, I have some, but mine were behind 3 doors...these were full-on)...and there were people who are mouth-breathers.

Need I say more?

Anyway, I will publicize that the public CAN ask questions via the on-line service...and I will say that I have given feedback and have **every reason to believe the quality will be better!**

Thank you!
Mary

Mary Olson

NIRS Southeast www.nirs.org

From: Consent Based Siting [mailto:consentbasedsiting@hq.doe.gov]
Sent: Wednesday, April 13, 2016 5:33 PM
To: Mary Olson
Cc:
Subject: RE: Chicago meeting recording--DOE query

Hi Mary,

The meeting transcript for Chicago was posted last Friday, and all videos are now posted at
<http://energy.gov/ne/downloads/meeting-materials-consent-based-siting-public-meeting-chicago-march-29-2016>

We are still working on meeting notes, which will also be posted shortly.

From: Consent Based Siting
Sent: Wednesday, April 06, 2016 4:09 PM
To: Mary Olson
Cc:
Subject: RE: Chicago meeting recording--DOE query

Hello Mary,

Yes, we are working on posting meeting materials and they will be up this week including video, transcript, and notes.

The Consent-based Siting Team

From: Mary Olson
Sent: Tuesday, April 05, 2016 5:28 PM
To: Consent Based Siting <consentbasedsiting@hq.doe.gov>
Cc:
Subject: Chicago meeting recording--DOE query

Greetings!

I was told by David Kraft that y'all agreed to record the "consent" public meeting in Chicago. Thanks for all the other materials you offer on the page for that meeting. I don't see the recording. Is it going to be posted?

THANKS

Mary

Mary Olson
Nuclear Information and Resource Service, Southeast

Consent Based Siting

From:
Sent: Wednesday, April 13, 2016 10:06 AM
To: Consent Based Siting
Subject: (no subject)

April 13, 2016

To Whom It May Concern,

I would NEVER consent to nuclear waste being stored near me.

Thank you,

Robert Handelsman

Consent Based Siting

From: George Milkowski
Sent: Saturday, April 09, 2016 11:45 AM
To: Consent Based Siting
Subject: No consent

Dear Sir or Madam,

I am opposed and do not wish to give consent to having spent radioactive nuclear materials being shipped through my community. The danger that these materials pose to the *very* long term health, safety, and well being of people and the environment is too extreme to risk.

Peace,

George Milkowski

Consent Based Siting

From: Sandy McCanne
Sent: Saturday, April 09, 2016 10:34 AM
To: Consent Based Siting
Subject: Response to IPC

To: Department of Energy

My comments are in response to the recent article in the Orange County Register (CA) on April 5, 2016 regarding nuclear waste.

I live in a highly populated area not far from the closed down nuclear plant at San Onofre, CA. From the beginning, we were concerned with the problems of storing nuclear waste, which is on site and has remained since it's inception.

We have been assured that Edison's plans for storage at the facility are safe and do not pose any threat to the public. I disagree.

First, we are at risk for significant or even major earthquakes; and second, it is vulnerable to a terrorism attack. Because of those reasons, using less than adequate storage containers to save money is irresponsible. Those of higher quality that are used worldwide should be the only option. Also moving the waste out the facility should be a priority and done as quickly as possible.

Lastly, safety for residents of Orange and San Diego Counties should be a priority and their views should be heard and addressed. Having only one hearing on April 26 in Sacramento, does not fulfill that goal. Please consider having holding addition hearings that are accessible to residents that are affected by your agencies decisions.

Sincerely,
Sandra McCanne

Consent Based Siting

From: Eric Robinson
Sent: Tuesday, April 05, 2016 8:03 PM
To: Consent Based Siting
Subject: ³Response to IPC²
Attachments: Restore IBEW Jobs and Eliminate Spent Fuel.ppt

IPC,

Please see ppt that explores the possibilities of using safe, low pressure Molten Salt Reactors (MSR) to consume the spent nuclear fuel at San Onofre. This technology was developed at Oak Ridge National Labs and ran without technical difficulties for 5 years.

As you know the SONGS facility is producing no power and has 1600 Metric Tonnes of spent nuclear fuel are on site. California's energy production now produces 98,000,000 tonnes of Global Climate Changing CO2 and particulates annually.

I calculated the value of the energy that could be generated in a MSR from the spent fuel at San Onofre Nuc Gen Station. It is conservatively about 53% of the original energy produced from the fuel rods before being removed from the LWR. I used Pu239 = 1/3 the original energy produced and U235 – 1/5 the original energy produced from the fuel rod while in the LWR.

I have estimated the total energy generated from the (3) generators to estimate the spent fuel energy existing onsite.

1. 436 MW x 24 years = ~10GW years
2. 1070 MW x 30 years = ~32 GW years
3. 1080 MW x 29 years = ~31 GW years
4. Total 73 GW years 73 GW x 365 x 24 x .88 = 562,742 GWh (.88 is % time online, MSR should be closer to 98% since refueling takes place online)
5. MSR can use spent fuel, Pu = 1/3 the original energy produced and U- 235 – 1/5 the original energy produced, 187,000 GWh + 112,000 GWh =
6. = 299,000,000,000 kWh @.13/kWh = \$38.9 Billion (California rates) with line losses 6% = 36.5 Billion

- How much energy is derived by MSR from SONGS Spent Nuclear Fuel? 299,000 GW h
- Value of that energy in today's market assuming legacy 33% efficiency conversion? \$36.5 Billion
- What would NRC pay to dispose of SONGS Spent Nuclear Fuel? \$411 Million (Divide \$18 Billion Yucca Mtn by SONGS percent 2.3%)
- What is the approximate income from Spent Nuclear Fuel reuse per tonne? \$23 Million/metric tonne
- What is the potential income from SONGS Spent Nuclear Fuel reuse? \$36.9 Billion 1,600 Metric Tonnes
- What is the potential income from US Spent Nuclear Fuel inventory? \$1.6 Trillion 70,000 Metric Tonnes
- What is the potential income from total Spent Nuclear Fuel inventory? \$4.81 Trillion 210,000 Metric Tonnes worldwide
- **The MSR creates a profitable, environmentally friendly way to utilize Spent Nuclear Fuel which leads to the elimination of this currently unsustainable waste stream.**

Here are a few points that are worth consideration. I believe there is a case for MSR to warrant classification as renewable.

- 1) Like renewable Biomass, MSR takes a waste stream and makes useable energy from it. Better than biomass, MSR does not release CO2.
- 2) Like renewable Geothermal the heat from MSR comes from the fission of uranium or thorium. Better than geothermal MSR is scalable globally.
- 3) Like renewable Wind and Solar, MSR takes energy from processes found in nature. Better than Wind & Solar MSR has a small footprint, is dense and is always on.
- 4) Unlike conventional, MSR is a liquid fueled system:
 - a. Solves by consuming an existing, as yet, unsustainable spent nuclear fuel waste stream.
 - b. No mining required for MSR.
 - c. Does not require a high pressure reactor vessel.
 - d. Has no potential to blow up or melt down, fails safe.
 - e. Has no CO2 or particle exhaust.
 - f. May be used to sequester CO2 into carbon neutral liquid fuels.

- g. Is a sustainable global solution for 1000s of years.
- h. Great source of heat for affordable water desalination.
- i. Produces usable products (Medical isotopes, rocket fuel).

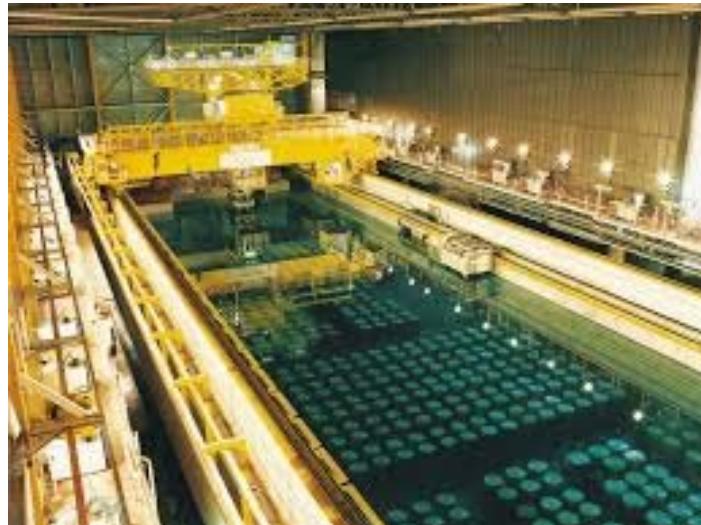
I look forward to your feedback.

Kind regards,

Eric Robinson

OMNISAFE.

*Restore and Build IBEW Jobs &
Eliminate Spent Nuclear Fuel*



A Proposal
For 2016

Eric Robinson
Omnisafe Co.

A Global Energy Solution

Problem

1. IBEW loses jobs as California Generation I Nuclear power plants get shut down.
2. Spent nuclear fuel, 1600 metric tonnes at San Onofre cannot legally be moved and has 10,000 year half life.
3. California has no viable plan to provide affordable, renewable, base load power needed by businesses as required by SB350 and AB32 implementation.
4. California is the 2nd highest CO₂ emitting state, producing 98 million tonnes of CO₂ and particulates annually.
5. Intermittent, diffuse sources like solar panel & wind farms require a clean source of back up power for continuous, affordable electricity.
6. California has a water shortage.

Solution

1. Secure IBEW union jobs can be restored by Generation IV Nuclear power which provides safe, affordable electric power.
2. A low pressure Gen IV Molten Salt Reactor will recycle and eliminate 99% of nuclear waste while generating power.
3. The modular Molten Salt Reactor can produce sustainable, no CO₂ base load power and is cheaper than coal at \$.02/kw.
4. Molten Salt Reactors produce no CO₂ or particulates.
5. A Molten Salt Reactor has a small footprint, is easily scalable and can provide continuous **base load** to support wind and solar.
6. Highly efficient Molten Salt Reactors provide low cost desalination.

Generation 1 Nuclear Power – 1950s era



We don't still use 1950s cars and phones. We can do better than 1950s Nuclear reactors.

Pros – Connected to Existing infrastructure
Cons – It is shut down and produces no power, 1600 Metric Tonnes of Spent Nuclear Fuel on site, 13 Feet above high tide. On a fault line. On a critical freeway Next to a military base.



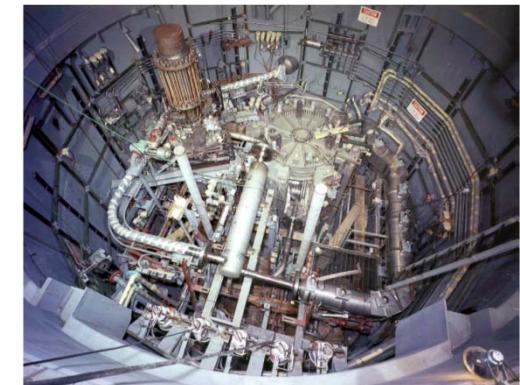
What can be done with the 1600 metric tonnes of spent nuclear fuel at San Onofre?



- Two things that can be done with spent nuclear fuel
 - **1) consume it in a reactor**
 - **2) store it for 30,000-years.**
- The inefficient processing of solid fuel in a high pressure Light Water Reactor accounts for the large amount of waste and why its so long-lived.
- Putting the spent fuel in a Molten Salt Reactors (MSR) results in a clean, environment with gigawatts of cheap, carbon-free electricity.
- Consuming nuclear waste in a MSR can reduce it from an unsustainable 30,000-year problem to a 99% smaller 300-year resource.
- Renewable energy providers utilizing MSR technology will consume our spent nuclear fuel 1) in CA or 2) at an interested out of state power generating facility.
- San Onofre has 1,600 tonnes of spent fuel (a tonne is a metric ton, or 1,000 kgs, which weighs 2,200 lbs.) The US has 70,000 tonnes, and the amount is growing at 4% a year.
- The MSR can convert this unsustainable waste into an endless green resource.

The Innovative Molten Salt Reactor *The Solution to our Energy requirements, a Fail-Safe future*

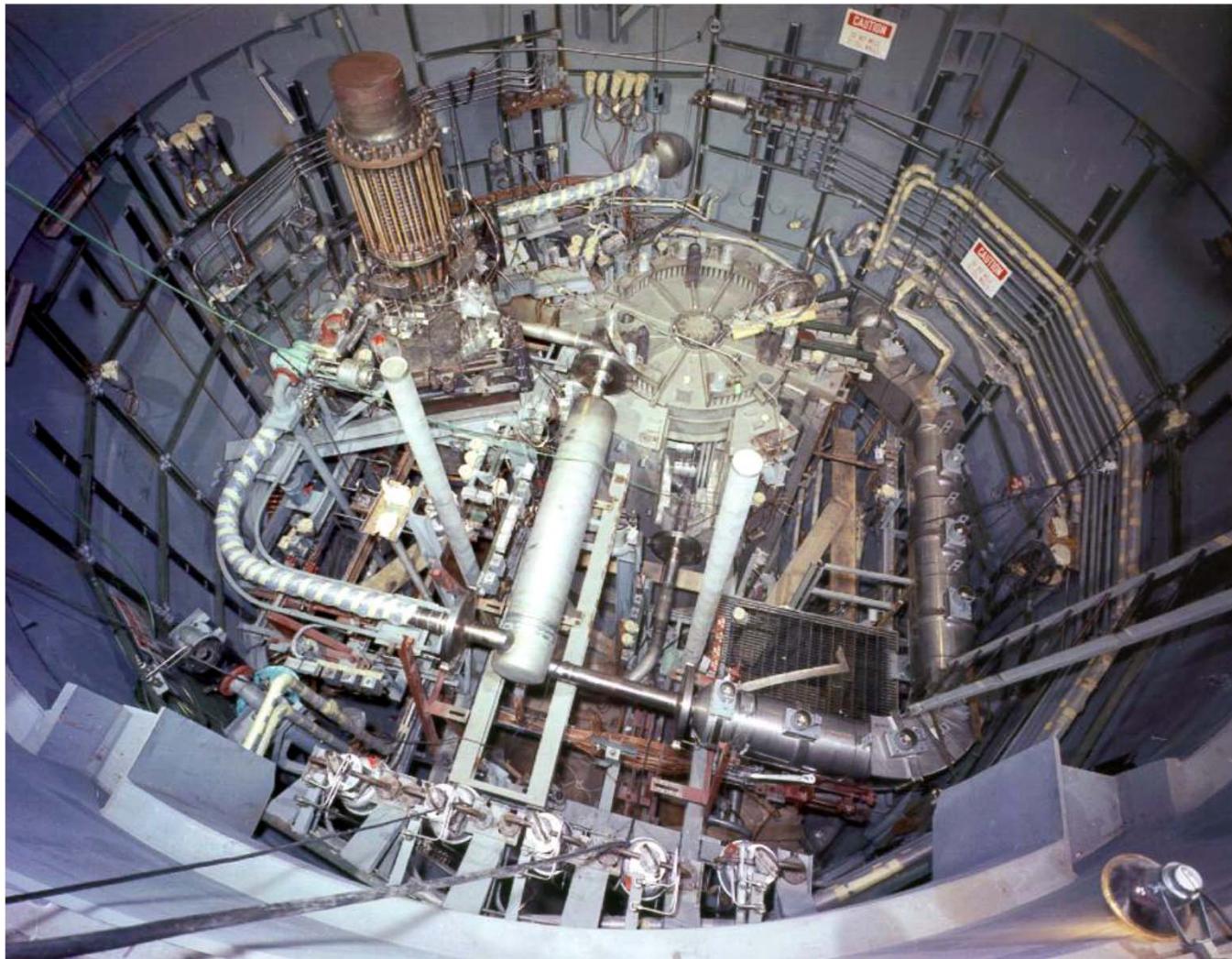
- **The Molten Salt Reactor (MSR)**, was designed and operated at Oak Ridge National Labs.
- The reactor ran for 5 years with no technical problems.
- MSR is low pressure, it cannot blow up because it is not pressurized.
- In **Molten Salt Reactors (MSR)**, The fuel is **liquid!**
- **Liquid** fuel is superior, it can't melt down.
- **Liquid** useful products produced by the reactor are continually removed for resale.
- **Liquid** reactor refueling can take place while it is running.
- **Liquid** fuel is self moderating meaning that as it heats up the fuel density decreases, decreasing the reaction rate. If the fuel temperature gets low the density increases, increasing the reaction rate. It consumes a large amount of long lived nuclear waste.
- It creates a very small amount of short lived products that can be used for medical isotopes, rocket fuel and a neutron source to start other reactors.
- If power is lost, a salt plug kept frozen by a fan, melts and the reactor passively empties into a, non-critical configuration, drain tank. It "fails safe"



Strategic Financial Plan

- How much energy can be derived by a Molten Salt Reactor from San Onofre Spent Nuclear Fuel? 307,034 GW h
 - Enough to power to replace San Onofre for 20 years without the 147,000,000 tonnes of CO₂ and particulates from replacement fossil fuels.
 - Value of that energy in today's market assuming legacy 33% efficiency conversion? \$36.5 Billion
- **The MSR creates a safe, profitable way to utilize Spent Nuclear Fuel to make clean energy. This efficiently leads to the elimination of this currently unsustainable nuclear waste stream.**
- **The success of the Molten Salt Reactor technology will expand and secure union jobs for the IBEW and UWUA.**

Generation IV Power – The Future



- Power cheaper than coal
- Clean electricity generation
- Do not need cooling water
- Reuse of LWR nuclear waste
- Low Pressure

Using modern, advanced technology



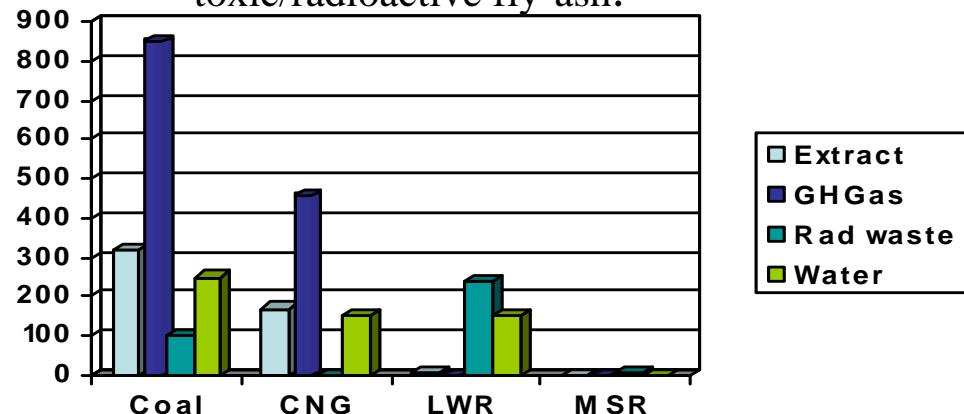
San Onofre – Spent nuclear fuel - 3 options

1. **Leave Spent nuclear fuel on the beach in San Onofre for 30,000 years**
2. **Consume Spent nuclear fuel onsite in CA**
 - Recondition fuel onsite at San Onofre .
 - Install MSR at San Onofre .
 - Resume & increase power production for So Cal.
 - Include Spent nuclear fuel energy from MSR as “renewable” in – SB 350, AB 32, San Diego Climate Action Plan.
3. **Consume Spent nuclear fuel at an out-of-state power plant**
 - Recondition Spent nuclear fuel onsite at San Onofre .
 - Deliver reconditioned fuel to out-of-state MSR.
 - So Cal Edison enters buyback, Long-Term Power Purchase Agreement with out-of-state provider.
 - Include Spent nuclear fuel energy from MSR as “renewable” in – SB 350, AB 32, San Diego Climate Action Plan.



1) Mine 3,200,000 tonnes of Coal

- emit 8,500,000 tonnes of greenhouse gases and particulates
 - landfill 900,000 cubic meters of toxic/radioactive fly-ash.



3) Mine 50,000 tonnes of uranium ore –

- emit no greenhouse gases
- produces 24 tonnes of long lived radiotoxic ‘waste’.
- In a Conventional, High pressure Light Water Reactor, (**LWR**)

2) Frack 1,730,000 metric tons Compressed Natural Gas CNG

- emit 4,600,000 tonnes of greenhouse gases and particulates.

Comparative Environmental impact of generating electricity for a 1 million people for 1 year.

4) Reuse 50 tonnes of waste spent nuclear fuel

- emit no greenhouse gases, requires no water cooling
- produces 0.8 tonnes of short lived reusable ‘waste’.
- In a Sustainable, Low pressure, Molten Salt Reactor, (**MSR**)

Is energy from spent nuclear fuel **“renewable”** and **“clean”** energy?



1. **Like** renewable Geothermal, the heat comes from uranium and thorium. Better than geothermal, MSR is scalable globally.
2. **Like** renewable Biomass, MSR takes a waste stream and makes useable energy from it. Better than biomass, MSR does not produce CO₂.

Unlike conventional Nuclear Light Water Reactors

- A. Consumes an existing, as yet, unsustainable spent nuclear fuel waste stream.
- B. No mining required for MSR fuel.
- C. A Fail Safe reactor
- D. No CO₂ or particle exhaust.
- E. Is a sustainable global solution for 1000s of years.
- F. Produces usable products (Medical isotopes, rocket fuel).
- G. Excess heat suitable for desalination.

Action Items

- Legislation - Direct So Cal Edison to invest a portion of the \$4 billion San Onofre decommissioning fund to implement Molten Salt Reactor technology eliminating their 1600 metric tonnes of spent nuclear fuel. This program can take place at San Onofre or an interested power generating facility out of state.
- Legislation - Append Section 25741 (a)(1) of the Public Resources Code to include the energy derived from recycling spent nuclear fuel in a Molten Salt Reactor as “renewable”. – Add MSRs to the following definition; "renewable electrical generation facility" must use one of the following: "biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation of 30 megawatts or less, digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current, and any additions or enhancements to the facility using that technology.“

Consent Based Siting

From: Mary Olson
Sent: Tuesday, April 05, 2016 5:28 PM
To: Consent Based Siting
Cc:
Subject: Chicago meeting recording--DOE query

Greetings!

I was told by David Kraft that y'all agreed to record the "consent" public meeting in Chicago. Thanks for all the other materials you offer on the page for that meeting. I don't see the recording. Is it going to be posted?

THANKS

Mary

Mary Olson
Nuclear Information and Resource Service, Southeast

Consent Based Siting

From: Tom Rielly
Sent: Tuesday, April 05, 2016 2:02 PM
To: Consent Based Siting
Subject: Consent-Based Citing Exit Evaluation
Attachments: C-B Exit Evaluation.jpeg

RE: Chicago Meeting

Hello,

We failed to leave this evaluation as requested on the day of the DOE Consent-Based Siting Meeting in Chicago.

Thank you for the invitation to attend.

Tom Rielly
Executive Principal
Vista 360

Attachment

Consent Based Siting -- Chicago Public Meeting Evaluation Form

Thank you for taking the time to participate in this evaluation. Your comments will enable us to better plan and implement our future public meetings.

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I found the open house and poster session to be helpful and informative.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
I found Dr. Rosner's opening remarks to be thoughtful and informative.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
I found John Kotek's panel presentation to be thoughtful and informative.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
I found Mayor Al Hill's remarks to be thoughtful and informative.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
I found Commissioner Ann McCabe's remarks to be thoughtful and informative.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
I found David Kraft's remarks to be thoughtful and informative.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
I found Kim Wasserman's remarks to be thoughtful and informative.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I found the Panel Question and Answer Session to be impartial and representative.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I found the Facilitated Small Group Discussions to be effective in allowing a free exchange of ideas	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I found the Public Comment Period to be effective and representative.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, the Overall Meeting proved to be worthy of my participation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
I participated on the Webinar and I felt that the video and audio feeds were sufficient.	<input type="radio"/>	<input checked="" type="radio"/>	<i>NOT APPLICABLE</i>	<input type="radio"/>	<input type="radio"/>
I would recommend that my colleagues attend future meetings on this topic.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

What did you like best about the meeting? PROMISING FORMAT

What would you like to see improved in future meetings? DISCLOSURES & UPDATE
RELEVANT CONNECTIONS

Thank you for your participation. Please place the completed survey in the box at the registration desk or email the completed form to consentbasedsiting@hq.doe.gov. Additional comments may also be sent directly to the Department via this same email address.

Consent Based Siting

From: Stephen Petty
Sent: Tuesday, April 05, 2016 1:37 PM
To: Consent Based Siting
Subject: Response to IPC

A fascinating article. I have two ideas.

-My first idea is to utilize another resource that has been difficult to recycle to help to dispose of the spent nuclear fuel. The “leaded” glass from discarded CRTs and picture tubes is, at present, a voluminous problem. Currently, only one factory in India is receiving this glass. There are huge stockpiles of it at various places on the globe. Because it contains lead, I think it could be re-purposed to be melt-molded into a suitable encapsulation container for this radioactive material and then “stacked” however is appropriate in the eventually, decided upon storage facilities.

-My second idea is as follows: Nobody wants radioactive *anything* anywhere near their towns, so perhaps there could be a controlled “sinking” into the Marianas Trench or other “deep-ocean” sites for these encapsulated units of nuclear waste. If there is a place on the planet which is actually “receiving” elemental matter into the *plate tectonics*, rather than spewing it forth as volcanic activity, perhaps that would also be a nice repository for this dangerous resource for centuries to come. I’m recommending letting the planet itself reabsorb the material that it yielded in the first place. If we could come up with such a method, we might breathe a little easier with the prospect of using clean nuclear energy in the future to help solve our global warming problem. I’m not a geologist, but perhaps somebody who is could look into this.

Consent Based Siting

From: Lois Kain
Sent: Tuesday, April 05, 2016 1:24 PM
To: Consent Based Siting
Subject: nuclear waste

To the Department of Energy,

I do not believe the idea of moving dangerous nuclear waste around the country for temporary storage in various locations is a solution to the horrible mess we have made from using nuclear power. It is madness. You want communities around the country to accept tons of radioactive waste. You want Americans to consent to radioactive waste being transported through our towns, cities, on our highways, railways, and waterways by trucks, trains, boats, which are all susceptible to accidents, crashes, even terrorists- domestic and foreign provocateurs. And, I bet you really don't care if Americans give their consent or not.

This country must come up with real solutions to our nuclear waste disaster. Moving waste around the country and dumping it where ever and spreading nuclear contamination is just not acceptable.

I agree with David Kraft, director of the Nuclear information Service, that safe on site containers would be best until we are able to build permanent storage for the deadly waste we have created.

Most Sincerely,

Lois Kain

Urbana, IL

Consent Based Siting

From: Jill
Sent: Monday, April 04, 2016 11:23 PM
To: Consent Based Siting
Subject: Nuclear rod transportation

Nuclear waste must be stored in place until a permanent storage facility is created. At this point moving it, on the road or by rail, is inviting accident and tragedy.

Jill Paulus

Sent from my iPad

Consent Based Siting

From: LeRoy Moore
Sent: Monday, April 04, 2016 8:42 PM
To: Consent Based Siting
Subject: Denver meeting

Hello:

I would like to register to speak at the May 24 Denver meeting. I see that the meeting begins at 5 PM. Can you send an agenda for the meeting so I have a sense of when I might be able to speak. What is the time limit for public comments?

Thank you,

LeRoy Moore, PhD

Consent Based Siting

From: Paul Berland
Sent: Monday, April 04, 2016 1:22 PM
To: Consent Based Siting
Subject: Nuclear Waste

Department of Energy,

Until a permanent burial site is found that can be constantly guarded and will not cause harm to nearby animals, plants, and people, nuclear waste should be given safer containers and kept at the nuclear power plants where the nuclear waste originated. Transporting nuclear waste is an unacceptable risk for temporary storage. You do not have my consent, as a resident of Illinois, to bring nuclear waste and store it in Illinois from other states or countries.

Paul Berland

Consent Based Siting

From: Sandra Booth
Sent: Sunday, April 03, 2016 1:21 PM
To: Consent Based Siting
Subject: Response to IPC

Since the 1970's not enough funding and research went into the safe storage of nuclear waste and the industry said they would take care of it, we have this under control. Well, that did not happen--the industry did not figure out how or where to safely store nuclear waste that must be stored longer and away from terrorism than anything we have ever had to store.

We absolutely can not have any increase in nuclear development until the industry pays for the research to figure out how to accomplish safe storage of nuclear waste. The industry and /or government have to be prepared to spend trillions of dollars to do what was said they would do: guarantee the safe storage of nuclear waste. Safe permanent storage of nuclear waste has not happened in the forty years since this promise was made.

It is very foolhardy to continue any future development of nuclear power until the huge problem of nuclear waste is truly resolved. What can you be thinking to ask communities to "consent" to having nuclear wastes stored within range of where radiation leaks spell health disaster to the inhabitants?

Sincerely,

Sandra Booth

Consent Based Siting

From:
Sent: Sunday, April 03, 2016 11:54 AM
To: Consent Based Siting
Subject: Intermediate transport of nuclear waste - Opposed

To: Secretary Moritz
Department of Energy
1000 Independence Ave. SW
Washington, DC 20585

Re: Request for comments and consent for transportation of nuclear waste for interim storage

Dear Secretary Moritz,

I am strongly opposed to intermediate transport of nuclear waste in this country.

We, in the Chicago area, might be candidates for intermediate nuclear waste to add to the tons we now have.

I am strongly opposed to the shipping of railroad trains to travel around the country with radioactive deliveries.

We have seen already repeated disastrous derailments and explosions of trains carrying petroleum.

You must be aware that terrorists, as in Belgium, could be tracking a nuclear facility for material for a dirty bomb - centralized locations and railroad trains would be an added attraction.

As in the Chicago area, many trains transit through large urban areas daily. Transport of nuclear waste by train is potentially risking the lives of millions of people.

The proposal is dangerous, even unconscionable.

Sincerely,

Beverley Walter

Consent Based Siting

From: Jan Boudart
Sent: Sunday, April 03, 2016 10:29 AM
To: Consent Based Siting
Subject: Please, send no more HLNW to Illinois.

Jan Boudart, Rogers Park, Chicago

Consent Based Siting

From: Jan thomas
Sent: Sunday, April 03, 2016 9:48 AM
To: Consent Based Siting
Subject: Radioactive waste

Gentlemen:

Moving radioactive waste around the country by rail is an extremely stupid idea. It is bad enough that bomb trains are rolling through our communities without our consent or knowledge. Radioactive material ups the ante exponentially. And this is not to mention the perils of terrorists and other crazy people attempting to steal it in transit.

The time has come to move beyond nuclear and fossil fuels to a clean energy future. Money should be spent on wind, solar, ocean wave and other electricity generating technologies instead. Establishing as-yet-unknown sites to stockpile nuclear waste is a step in the wrong direction.

Please say no.

Thank you and sincerely,
Jan Thomas



Virus-free. www.avast.com

Consent Based Siting

From: Bill and Judy Traynor
Sent: Saturday, April 02, 2016 10:53 PM
To: Consent Based Siting
Subject: We Oppose

We oppose unplanned and unpublished transport of radioactive materials across our rails, roads and rivers. Storage in distributed depots is unthinkable. Are you all mad?

Bill and Judy Traynor

Consent Based Siting

From: Rita M Conn
Sent: Saturday, April 02, 2016 12:02 PM
To: Consent Based Siting
Subject: Re: Meeting Dates Finalized for Consent-Based Siting Public Meetings

Unfortunately the hours of the Sacramento meeting makes it impossible for those of us from Southern California to attend. At 9:30 pm the Orange County airport is closed. There are quite a few of us who would like to be there. Is it possible to change the hours of the meeting?

Rita Conn
Chairwoman Let Laguna Vote/Secure Nuclear Waste

Sent from my iPhone

On Mar 31, 2016, at 1:17 PM, Consent Based Siting <consentbasedsiting@hq.doe.gov> wrote:

Please reference the corrected hyperlinks below. All information is also on the consent-based siting website listed below. Hope to see you at one of the public meetings.

The U.S. Department of Energy concluded its first public meeting in Chicago on March 29th to discuss consent-based siting. We are holding our next meeting in Atlanta on April 11th. In addition, the remaining six cities are now available for registration. Please reference the links below and visit our website energy.gov/consentbasedsiting for more information.

- **Sacramento, California** on April 26th at the Holiday Inn Capitol Plaza. Please register [here](#) to attend the Sacramento meeting in person or view the event online. To see a draft agenda, please click [here](#).
- **Denver, Colorado** on May 24, 2016 at the Embassy Suites Denver - Stapleton. Please register [here](#) to attend the Denver meeting in person or view the event online.
- **Boston, Massachusetts** on June 2, 2016 at the Hyatt Regency Boston. Please register [here](#) to attend the Boston meeting in person or view the event online.
- **Tempe, AZ** on June 23, 2016 at the Marriott Phoenix Tempe at the Buttes. Please register [here](#) to attend the Tempe meeting in person or view the event online.
- **Boise, ID** on July 14, 2016 at Boise Centre. Please register [here](#) to attend the Boise meeting in person or view the event online.
- **Minneapolis, MN** on July 21, 2016 at the Hilton Minneapolis. Please register [here](#) to attend the Minneapolis meeting in person or view the event online.

We look forward to your participation!

-The DOE Consent-based Siting Team

Consent Based Siting

From:
Sent: Friday, April 01, 2016 6:13 PM
To: Consent Based Siting
Subject: "Consent" re. radioactive waste storage

To gain "consent" for storage of radioactive waste, the site must be an earthquake- free zone. Next, the proposal must be put up for a vote of all the registered voters in the area or state. Environmental impact studies must be performed before the election and be made available to voters both at city and county buildings and online. To gain "consent" the proposal must pass by at least a 2/3 majority. Voters should also be able to select "permanent non-consent" as one of their choices. Some areas that are subject to earthquakes whether due to faults in the tectonic plates or fracking are not appropriate sites for radioactive waste storage.

Leslee McPherson

--
Sent from my Android device with K-9 Mail. Please excuse my brevity.

Consent Based Siting

From: Charlene Lilie
Sent: Friday, April 01, 2016 4:58 PM
To: Consent Based Siting
Cc: Joan Goddard
Subject: nuclear waste

dear sirs,

Nuclear waste is unsafe to transport. Since you can not store nuclear waste forever at a reactor site, ALL REACTOR SITES need to be phased out.

you also have no clear consent process for cities to OPT OUT of storage consideration

sincerely
C Lilie

Consent Based Siting

From: Betsy Madru
Sent: Friday, April 01, 2016 3:22 PM
To: Consent Based Siting
Subject: Email distribution list

Will you please add me to the email distribution list?

Thanks!

Betsy Madru
Vice President of Government Affairs
Waste Control Specialists LLC

Consent Based Siting

From: Stuart Price
Sent: Friday, April 01, 2016 12:44 PM
To:
Subject: Free event: Highlighting nuclear industry outreach

Hello, all.

I will deliver a presentation on reaching out to stakeholders in the nuclear industry.

Hopefully, you will be able to view this free streaming event on April 26, Noon >
<http://www.eventbrite.com/e/siren-stuart-v-price-preserving-clear-community-relations-during-the-dark-days-of-nuclear-emergency-tickets-23451009601>

Taking place at Virginia Tech's campus outside Washington, DC, this presentation addresses building new nuclear reactors, managing nuclear emergencies, and managing radioactive/hazardous waste products.

As regards ultimate geologic disposal, the talk highlights the need for consent-based siting.

I hope you can take part.

Onward,

stuart

Stuart V. Price

Consent Based Siting

From: Leuer, Kevin (DPS)
Sent: Thursday, March 31, 2016 12:47 PM
To: Consent Based Siting
Subject: RE: Meeting Dates Finalized for Consent-Based Siting Public Meetings

The links for the future dates do not work

Kevin C. Leuer
Director, Preparedness Branch
Minnesota Department of Public Safety
Division of Homeland Security and Emergency Management

"Keeping Minnesota Ready"

<http://hsem.dps.mn.gov>

From: Consent Based Siting [mailto:consentbasedsiting@hq.doe.gov]
Sent: Thursday, March 31, 2016 11:02 AM
Subject: Meeting Dates Finalized for Consent-Based Siting Public Meetings

The U.S. Department of Energy concluded its first public meeting in Chicago on March 29th to discuss consent-based siting. We are holding our next meeting in Atlanta on April 11th. In addition, the remaining six cities are now available for registration. Please reference the links below and visit our website energy.gov/consentbasedsiting for more information.

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- **Minneapolis, MN** on July 21, 2016 at the Hilton Minneapolis. Please register [here](#) to attend the Minneapolis meeting in person or view the event online.

We look forward to your participation!

-The DOE Consent-based Siting Team

Consent Based Siting

From: Mary Jane Williams
Sent: Thursday, March 31, 2016 12:11 PM
To: Consent Based Siting
Subject: Re: Not possible to register for Chicago meeting today on your website!

You need a website devoted only to the "Consent Based Siting" meetings. Going through the DOE website is too confusing. Do you want to reach the public or not? If yes, do away with the bureaucratic hurdles.

Advertise in newspapers. Put flyers in public libraries. DO NOT ASSUME EVERYONE GOES ONLINE. They do not.

From your website it looks like registration is mandatory. So I'd say start off with a huge headline on your website: "Registration not mandatory!" Then say: "If you want your name tag to be all printed for you when you arrive, register. Otherwise just come! ALL INVITED"

Actually. Many of those coming might prefer to have no name tags.

I have other suggestions:

It is INSULTING to members of the public to confine public comments to a very short segment! The people coming will already be very well versed on nuclear waste problems. We don't need your "experts" to blather on for hours.

We've come to tell you what we think, not have you tell us what the government thinks. We know what the government thinks. And now we have 70 years of faulty government thinking on nuclear waste to deal with. So now you come to us the public, hat in hand, so to speak, saying: "Please could we bury the most toxic stuff on earth which will last hundreds of thousands of years on your land."

1. Totally reverse the ratio of your people talking to the public talking. Have your people explain the history and introduce the subject for 45 minutes at the start of the day. Then devote the REST OF THE DAY to public comments. Perhaps limit the time for each person to 4 minutes.
2. Do not waste the public's time on "small group" sessions. We will have come to talk to YOU, not to each other. What point would it serve talking to each other! Except for possibly just "giving us something to do" in your DOE minds.

We are not interested in busy work.

On Thursday, March 31, 2016 11:26 AM, Consent Based Siting <consentbasedsiting@hq.doe.gov> wrote:

Thank you for your comments. Both the webinar link and in-person public meetings are open to walk in (or drop in) attendees. In other words, registration is not required, it just helps us plan for the number of attendees to expect. Registration links did close the evening before the meeting in Chicago so we could print a final list of name tags. We will leave registration links active through the meeting start time for the next 7 meetings to avoid any confusion.

-The Consent-based Siting Team

From: Mary Jane Williams
Sent: Tuesday, March 29, 2016 11:30 AM
To: Consent Based Siting
Subject: Not possible to register for Chicago meeting today on your website!

If you click on "registration" it says: "No registrations are available." !

Consent Based Siting

From: Tami Allen
Sent: Wednesday, March 30, 2016 10:56 PM
To: Consent Based Siting
Subject: Response to IPC

Nuclear Waste Acceptance Consent?

- 1) Who in their right mind would consent to accepting nuclear waste?!
- 2) Nuclear Energy is NOT the future; it is NOT clean energy - it produces hazardous nuclear waste.
- 3) Clearly there are major issues with nuclear waste disposal, so how about we just stop creating it...??!!

Nuclear power plants are costly to build and maintain. They are also prone to deadly "accidents". There is no safe way or place to dispose of nuclear waste - the stuff is toxic, and it remains so for eons and generations.

Shut them all down. Stop building them. Stop nuclear power. No more nuclear waste. Problem solved.

Nuclear power is no better than fossil fuels. We need to transition to clean, green, renewable energy sources ASAP! Wind and solar, for example, won't harm our health, the environment, or add to climate change.

It all seems pretty simple!

Consent Based Siting

From: Tami Allen
Sent: Wednesday, March 30, 2016 8:42 PM
To: Consent Based Siting
Subject: Nuclear Waste Acceptance Consent?

- 1) Who in their right mind would consent to accepting nuclear waste?!
- 2) Nuclear Energy is NOT the future; it is NOT clean energy - it produces hazardous nuclear waste.
- 3) Clearly there are major issues with nuclear waste disposal, so how about we just stop creating it...????!!

Nuclear power plants are costly to build and maintain. They are also prone to deadly "accidents". There is no safe way or place to dispose of nuclear waste - the stuff is toxic, and it remains so for eons and generations.

Shut them all down. Stop building them. Stop nuclear power. No more nuclear waste. Problem solved.

Nuclear power is no better than fossil fuels. We need to transition to clean, green, renewable energy sources ASAP! Wind and solar, for example, won't harm our health, the environment, or add to climate change.

It all seems pretty simple!

Consent Based Siting

From: Susan Gill
Sent: Wednesday, March 30, 2016 10:32 AM
To: Consent Based Siting
Subject: Re: Nuclear Waste

We must stop using this Dangerous method of energy!
Susan Gill
Sent from my iPhone

Consent Based Siting

From: john sonin
Sent: Tuesday, March 29, 2016 1:47 PM
To: Consent Based Siting
Subject: Plan for suicide?

We must STOP this attritional-suicide of our future! Either quit producing this profane, toxic planetary-additive or successfully & sustain-ably re-introduce it to the organic system of Earth!

John S. Sonin
Juneau, AK

Consent Based Siting

From: Ross Harder
Sent: Tuesday, March 29, 2016 8:29 AM
To: Consent Based Siting
Subject: Chicago meeting

Greetings,

The time of day that this meeting starts is not specified. The registration page does not even include it.

Ross

Sent from my iPhone

Consent Based Siting

From: Pamela Gibberman
Sent: Monday, March 28, 2016 8:54 PM
To: Consent Based Siting
Subject: Nuclear Waste Storage

To Whom It May Concern:

Is there any sane person who Wants to have nuclear waste stored in or near his/her community? There is no safe way and no safe place for it here on planet Earth. Perhaps you could send it to the sun. I most emphatically do NOT consent to have it anywhere in California!!!

Sincerely,
Pamela Gibberman

Consent Based Siting

From: Donna Gilmore
Sent: Monday, March 28, 2016 4:07 PM
To: Consent Based Siting
Subject: Question on IPC

Why is the mailing address required on the Federal Register comment form? An email address should be sufficient. I do not want my mailing address made public and see no justification for this.

<https://www.federalregister.gov/articles/2015/12/23/2015-32346/invitation-for-public-comment-to-inform-the-design-of-a-consent-based-siting-process-for-nuclear#open-comment>

Consent Based Siting

From: Donna Gilmore
Sent: Monday, March 28, 2016 3:59 PM
To: Consent Based Siting
Subject: Response to IPC – DOE's radioactive spent fuel storage plan is designed to leak
Attachments: DOE-DesignedToLeak2016-03-28Handout.pdf; CommentsDOE-PlanDesignedToFail2016-03-28DG.pdf

Both a longer and shorter version of my comments are attached.

----- Forwarded Message -----

Subject: Response to IPC – DOE's radioactive spent fuel storage plan is designed to leak
Date: Mon, 28 Mar 2016 12:55:22 -0700
From: Donna Gilmore
To: consentbasedsiting@hq.doe.gov

See attached DOE Invitation for Public Comment to Inform the Design of a Consent-Based Siting Process for Nuclear Waste Storage and Disposal Facilities.

Please address these issues at your public meetings and in a written response.

Thank you,

Donna Gilmore

reference: <https://federalregister.gov/a/2015-32346>

DOE's radioactive spent fuel storage plan is designed to leak

Before seeking input on consent-based siting the Department of Energy (DOE) must resolve issues that will likely result in major radiation leaks into the environment. The existing over 2000 highly radioactive thin-walled spent fuel storage canisters, each containing about a Chernobyl's worth of Cesium-137, are not safe and the DOE's proposed pilot design uses these canisters. The DOE must demonstrate that the federal government can fund, transport, and manage nuclear waste without significant radiation leaks and demonstrate the federal government can comply with existing nuclear waste laws, contracts and agreements. They have not done this.

Storage Risks

- **Existing thin (1/2" to 5/8" thick) stainless steel canisters can crack, cannot be inspected, repaired, maintained or adequately monitored.** The DOE must require systems that do not have these flaws and not accept promises of future solutions. NRC Mark Lombard: <https://youtu.be/QtFs9u5Z2CA>
- **Canisters cannot be inspected or repaired and even a microscopic crack will release millions of curies of radiation into the environment.** Holtec canister CEO Kris Singh: <http://youtu.be/euaFZt0YPi4>
- **Once cracks start they can penetrate hot canister walls in 5 years or less.** Canisters are vulnerable to cracking from marine environments and other conditions, such as air pollution (sulfites). A similar component at the Koeberg nuclear plant leaked in 17 years with numerous cracks thicker than most nuclear waste canisters. A Diablo Canyon canister has all the conditions for cracking in a 2-year old canister. <http://bit.ly/SAND2015-2175R> <http://pbadupws.nrc.gov/docs/ML1425/ML14258A081.pdf>
- **DOE plan assumes nothing will go wrong with the canisters or fuel, so no pools or other method to remediate problems has been addressed.** The current NRC approved remediation for a failed canister or fuel is to unload fuel in a spent fuel pool. DOE has no spent fuel pool or other adequate plan.
- **Near real-time radiation monitoring with public access and emergency planning are needed.**
- **Most other countries use thick-walled (about 10" to 20" thick) irradiated spent fuel storage/transport casks that don't have these problems,** such as in Germany, and Japan at Fukushima. These countries store their irradiated spent fuel casks in hardened structures for additional protection.

Transport Risks

- **Cracked canisters cannot be transported** (NRC 10 CFR § 71.85). Existing canisters may have cracks.
- **Major transport infrastructure issues and the safety of transporting irradiated spent fuel through our communities have not been adequately addressed.**
- **Canisters need up to 45 years cooling (after removed from reactor) before transport per DOT.** <http://pbadupws.nrc.gov/docs/ML1411/ML14114A132.pdf> www.nwtrb.gov/meetings/2013/april/boyle.pdf

Funding and Legal Authority Inadequate

- **Storage container requirements must be based on meeting short and long term needs, rather than on how much money Congress is willing to allocate each year.** The DOE's current recommendation is the latter (partially due to Congress redirecting existing funds originally designated for a permanent repository). The federal government must guarantee sufficient funds will be allocated for as long as the waste needs be transported and needs be stored – up to 120 years for short-term storage (per NRC definition of short-term) and for long-term storage, which is basically forever.
- **States and Tribal Nations must have legal authority and funding** to set and enforce higher standards for storage and transport, aging management, radiation levels, and emergency planning.
- **States and localities must be legally authorized to establish their own criteria for standing and volunteer status, and no further requirements may be set by the federal government except that any expression of interest must affirm that it is consistent with the requirements of Executive Order 12898 regarding Environmental Justice.**
- **Communities impacted by radioactive releases need to be adequately financially compensated.**

Once started cracks can grow through canister wall in less than 5 years

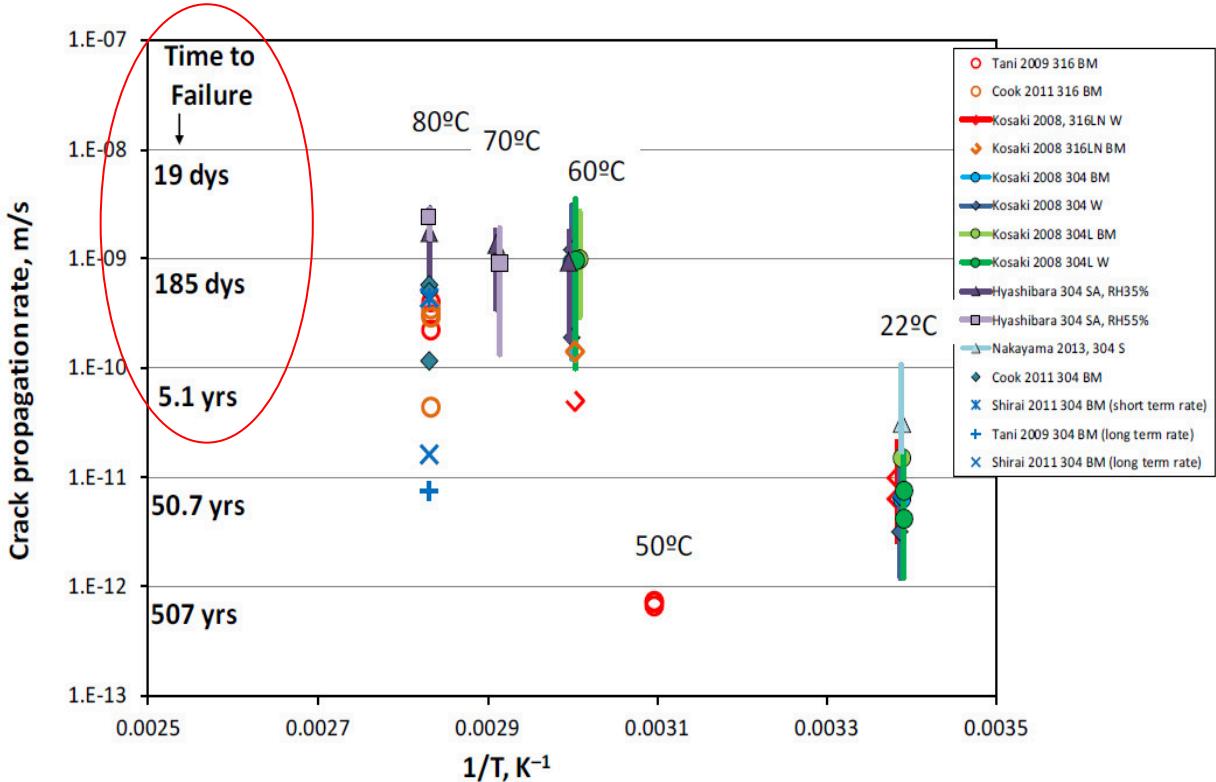


Figure E-5. SCC propagation rates for atmospheric corrosion of 304SS and 316SS. BM –base metal; W–weld sample; SA–solution annealed; S–sensitized. Bars represent reported ranges (if more than one), while symbols represent average values. Time to failure corresponds to the time required to penetrate a 0.625" thick canister wall.

Up to 45 years cooling required before meets DOT safety transport regs (~20kW)



Long-Term Performance Challenges

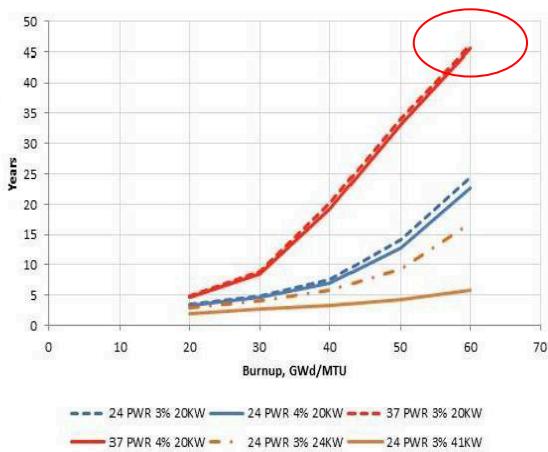
Nuclear Energy

www.nwtrb.gov/meetings/2013/april/boyle.pdf

Thermal Load Management

- DPCs are now loaded at about 20 kW
- Canister design storage limits are typically 24 kW, maximum currently available is rated to 40.8 kW for storage
- Hottest waste packages considered for Yucca Mountain emplacement were 18 kW
- Other repository design concepts call for much cooler waste packages (e.g., SKB calls for initial load per package ≤ 1.7 kW)

Estimated Cooling Time for PWR fuel to Reach Specified Thermal Power, as a Function of Canister Size and Burnup



Other performance considerations

- Engineered barrier performance at elevated temperatures (e.g., clay-based backfill/buffer performance)
- Criticality control

March 28 2016

TO: Department of Energy
U.S. Department of Energy
Office of Nuclear Energy, Response to IPC
1000 Independence Ave SW.
Washington, DC 20585
consentbasedsiting@hq.doe.gov

RE: Response to IPC – DOE's radioactive spent fuel storage plan is designed to leak

Before seeking input on consent-based siting the Department of Energy (DOE) must develop a safer plan and have “informed” consent. Existing nuclear plant highly radioactive spent fuel storage facilities are not safe and the DOE’s proposed pilot design models those inadequacies. The following issues must be addressed or the DOE’s pilot plan is doomed to fail and leak radiation into the environment.

The majority of current U.S. irradiated spent fuel storage facilities use thin-walled (1/2" to 5/8") stainless steel canisters that the Nuclear Regulatory Commission (NRC) acknowledges are vulnerable to cracking and leaking. Once a crack initiates the NRC states it can grow through the canister wall in 16 years. <http://pbadupws.nrc.gov/docs/ML1425/ML14258A081.pdf>

A 2015 Sandia Lab report states that in hotter canisters cracks can grow through the wall even faster – less than 5 years (Attachment – Sandia Lab). These canisters have been in use for a number of years and may already have partial cracks. Partially cracked canisters are not approved for transport.

These canisters cannot be inspected (even on the outside), so no one knows the condition of the canisters. They cannot be repaired and maintained and have no early-warning monitoring system prior to a radiation leak. Most of these thin-walled canisters have not been in use long enough to leak. However, we will be reaching that point soon. Your plan to relocate these existing canisters without addressing these issues is a design to fail.

- **Storage containers.** Storage containers must be designed to be inspectable (inside and out), repairable, maintainable, not subject to structural cracks, and have early-warning monitoring prior to radiation leaks. Sites must have provisions for replacing failing fuel or failing canisters. Most other countries use thick-walled (about 10" to 20" thick) irradiated spent fuel storage casks that don’t have these problems, such as in Germany, and Japan at Fukushima. Those countries also store their irradiated spent fuel containers in reinforced structures for additional environmental protection.
- **Radiation monitoring.** Near real-time radiation monitoring with public access must be required.
- **Long-term requirements.** Storage container requirements must be based on meeting short and long term needs, rather than on how much money Congress is willing to allocate each year. The DOE’s current recommendation is the latter (partially due to Congress redirecting existing funds that were designated for a permanent repository).
- **Safety record.** The DOE must demonstrate that the federal government can fund, transport, and manage nuclear waste without significant radiation leaks and demonstrate that the federal government can comply with existing nuclear waste laws, contracts and agreements. They have not done this.
- **Funding.** The federal government must guarantee sufficient funds will be allocated for as long as the waste needs be transported and needs be stored -- up to 120 years for short-term storage (per NRC definition of short-term) and for long-term storage, which is basically

forever. Communities impacted by a radioactive release need to be adequately financially compensated.

- **Legal authority.** States and Tribal Nations must have legal authority to set higher standards for such things as storage and transport containers, aging management and radiation exposure levels. States must have enforcement authority for nuclear waste stored in or near their communities based on potential radioactive contamination zones. They also must have adequate funding to administer and enforce these requirements.
- **Transport.** The DOE must address major transport infrastructure issues and the safety of transporting irradiated spent fuel through our communities. Communities must have on-line access to transport accident records and status of transport infrastructure for any potential routes used for transport. Some canisters may require up to 45 years of cooling before they meet Department of Transportation radiation limits (Attachment – Transport).
- **Consent.** Regarding consent, each state and locality must be legally authorized to establish its own criteria for standing and volunteer status, and no further requirements may be set by the federal government except that any expression of interest must affirm that it is consistent with the requirements of Executive Order 12898 regarding Environmental Justice.

Until such time as these issues are addressed, it would be folly for any community to agree to be a spent fuel storage site for high level nuclear spent fuel, where each thin-walled canister contains about as much Cesium-137 as was released from Chernobyl and could start leaking after 20 years of use with no plan to mitigate leaks.

DETAILS

Current DOE sites leak radiation: Current DOE managed sites consistently leak radiation into the environment from leaking or exploding inferior storage containers, such as Hanford in Washington, Savannah River Site in South Carolina, the Waste Isolation Pilot Project (WIPP) in New Mexico, Idaho National Lab and other sites.

There is a pattern of selecting inferior containers that are not even sufficient for short-term storage – containers that cannot be inspected, monitored, repaired and maintained. In essence, these storage containers are designed to fail. The DOE must demonstrate they can resolve these issues before moving forward with any consent-based siting process.

DOE pilot project is designed to fail and leak radiation: The proposed DOE irradiated spent fuel nuclear waste storage plan is designed to fail. It proposes transporting and storing existing thin-walled stainless steel canisters (1/2" to 5/8" thick) that cannot be inspected, repaired, maintained, have no early warning system prior to a radiation leak, can corrode and crack, and can start leaking millions of curies of radiation after 20 years of storage, possibly sooner. A 2015 Sandia Lab report shows that once cracks start in hotter thin-walled stainless steel canisters, they can grow through the wall of the canister in less than 5 years (Attachment - Sandia Chart).

A failure of even one of these “Chernobyl” canisters could be catastrophic. There is potential for explosions, due to the unstable and pyrophoric nature of these materials when exposed to air. (*Damaged Spent Nuclear Fuel at U.S. DOE Facilities, Experience and Lessons Learned, INL, Nov 2005 INL/EXT-05-00760, Page 4 & 5*). <https://inldigitallibrary.inl.gov/sti/3396549.pdf>

The DOE pilot design has no provisions to address these issues and provides no remediation for failing canisters. Most of the over 2000 U.S. thin-walled canisters have been in use less than 20 years, so we have not seen through-wall cracks yet. However, the DOE must address this issue in

their plans. The NRC's initial 20-year dry storage container certification considers "out of scope" any problems that may occur after 20 years. In their relicensing the NRC aging management plan (NUREG-1927 Rev 1 Draft) requires canisters with 75% through-wall cracks be taken out of service. However, the method to accomplish this or even inspect and measure cracks does not exist for canisters filled with irradiated spent fuel. <http://pbadupws.nrc.gov/docs/ML1605/ML16053A199.html> NRC regulations do not allow the transportation of canisters with even partial cracks (10 CFR § 71.85 *Packaging and Transportation of Radioactive Materials*).

Neither the outside or inside structure of these thin-walled welded canisters can be inspected, let alone repaired. Other countries use thick-walled casks that do not have these problems.

Both the DOE and NRC have chosen to continue endorsing the inferior technology even though NRC Commissioners directed staff to "encourage the adoption of state of the art technology for storage and transportation". *Staff Requirements – COMDEK-09-0001 – Revisiting the Paradigm for Spent Fuel Storage and Transportation Regulatory Programs*, February 18, 2010 <http://pbadupws.nrc.gov/docs/ML1004/ML100491511.pdf>

NRC Director of Spent Fuel Management Division, Mark Lombard states **inspecting these canisters "is not a now thing"** (<https://youtu.be/QtFs9u5Z2CA>).

Dr. Kris Singh, Holtec thin-walled canister President, states that **even a microscopic crack will release millions of curies of radiation into the environment and that the canisters are not repairable.** (<https://youtu.be/euaFZt0YPi4>).

Canisters may need to stay on-site for up to 45 years before they are cool enough to meet Department of Transportation radiation dose requirements (Attachment – Transport).

Don't take us for a ride: Would you buy a car for your family that could not be inspected, maintained, and repaired and provided no warning before the engine or brakes failed? That is basically what you are asking our families to do with these thin-walled irradiated spent fuel storage canisters. The Delorean cars looked good until the stainless steel 304 alloy panels began corroding. This is the same material used in most of the over 2000 U.S. thin-walled stainless steel canisters. NRC material engineers state that operating experience with both 304 and 316 stainless steel alloys demonstrate these problems. Numerous environmental and other factors can initiate corrosion and cracking (e.g., corrosive salt particles and from sulfites in air pollution and vehicle exhaust).

States need legal authority: States and communities currently have no legal rights to set higher standards for storage and transport and have no legal recourse for DOE mismanaged facilities or for DOE broken promises. The State of Idaho is one of the few states with a legal agreement, yet the DOE has not met the conditions of that contract. DOE's promise to remove nuclear waste from Idaho by 2035 appears to be a goal rather than a commitment.

<https://www.deq.idaho.gov/inl-oversight/oversight-agreements/1995-settlement-agreement/>

Consent-based siting meetings and process inadequate: At the first consent meeting on January 20, 2016, the question was asked about having public meetings covering technical issues. The DOE appears to want to skip over this part of the process. Instead, we were referred to another federal agency, the Nuclear Waste Technical Review Board (NWTRB) who does not have responsibility for the design and management of the sites. Their function is to perform independent scientific and technical peer review of the DOE program for managing and disposing of high-level radioactive waste and spent nuclear fuel and provide findings and recommendations to Congress, the Secretary of Energy, and public. Questions about the issues with the existing thin-walled canisters were ignored.

SUMMARY

Unless the issues identified in this document are resolved, the DOE project is designed to fail and leak radiation into the environment.

The DOE must choose the best technology available internationally for interim storage and not rely on U.S. vendors for their technology solutions, as is now the case. This must be a decision based on long-term safety, not short-term cost savings, as is now the case. Anything less is unacceptable.

The DOE must exceed NRC minimum standards in order to avoid radiation leaks and potential explosions. Most of the rest of the world uses thick metal storage/transport casks (10" to 20" thick) and stores them in reinforced buildings for additional security and environmental protection. They do not have the issues of the thin-walled canisters and they are designed to be maintained. A quality engineering design has aging management built into the design. These thin-walled canisters do not meet that standard yet the DOE plans to use them.

Transportation issues are mentioned as problematic, but insufficient details are provided in terms of costs, technical and safety issues. For example, no mention has been made about the amount of cooling time required before transport (which may be over 45 years for 37-fuel assembly canisters) or how to address the fact that existing thin-walled canisters may already have cracks.

Since the interior of the canisters also cannot be examined, the condition of existing fuel assemblies is unknown. And the DOE is ignoring the DOE Standard Contract that requires fuel assembly retrievability.

Rather than consent-based siting, DOE efforts and public meetings must be focused on storage, transport, and funding; state, local and Indian Nation legal authority; and environment justice issues identified in this document.

It would be folly for any community to consent to the transportation and storage of high level irradiated spent nuclear fuel until all these critical issues are resolved.

Donna Gilmore
SanOnofreSafety.org

ATTACHMENT – Sandia Chart

Thin-walled stainless steel U.S. irradiated spent fuel storage canisters at higher temperatures will have faster crack growth rate. The Sandia Chart below shows higher temperatures can cause canisters to penetrate the wall in less than 5 years. This chart assumes canister wall is 0.625" (5/8") thick. The majority of the U.S. canisters are only 0.50" (1/2") thick. It is unknown when a crack will start, but these canisters are subject to corrosion and cracking from environmental conditions such as chloride salts, air pollution (sulfides), pitting, and microscopic scratches. The report states that canisters such as those at Diablo Canyon have temperatures in these heat ranges.

Draft Geologic Disposal Requirements Basis for STAD Specification, A. Ilgen, C. Bryan, and E. Hardin, Sandia National Laboratories, March 25, 2015, FCRD-NFST-2013-000723 SAND2015-2175R, PDF Page 36 & 46 <http://prod.sandia.gov/techlib/access-control.cgi/2015/152175r.pdf>

34

Draft Geologic Disposal Requirements Basis for STAD Specification

March 25, 2015

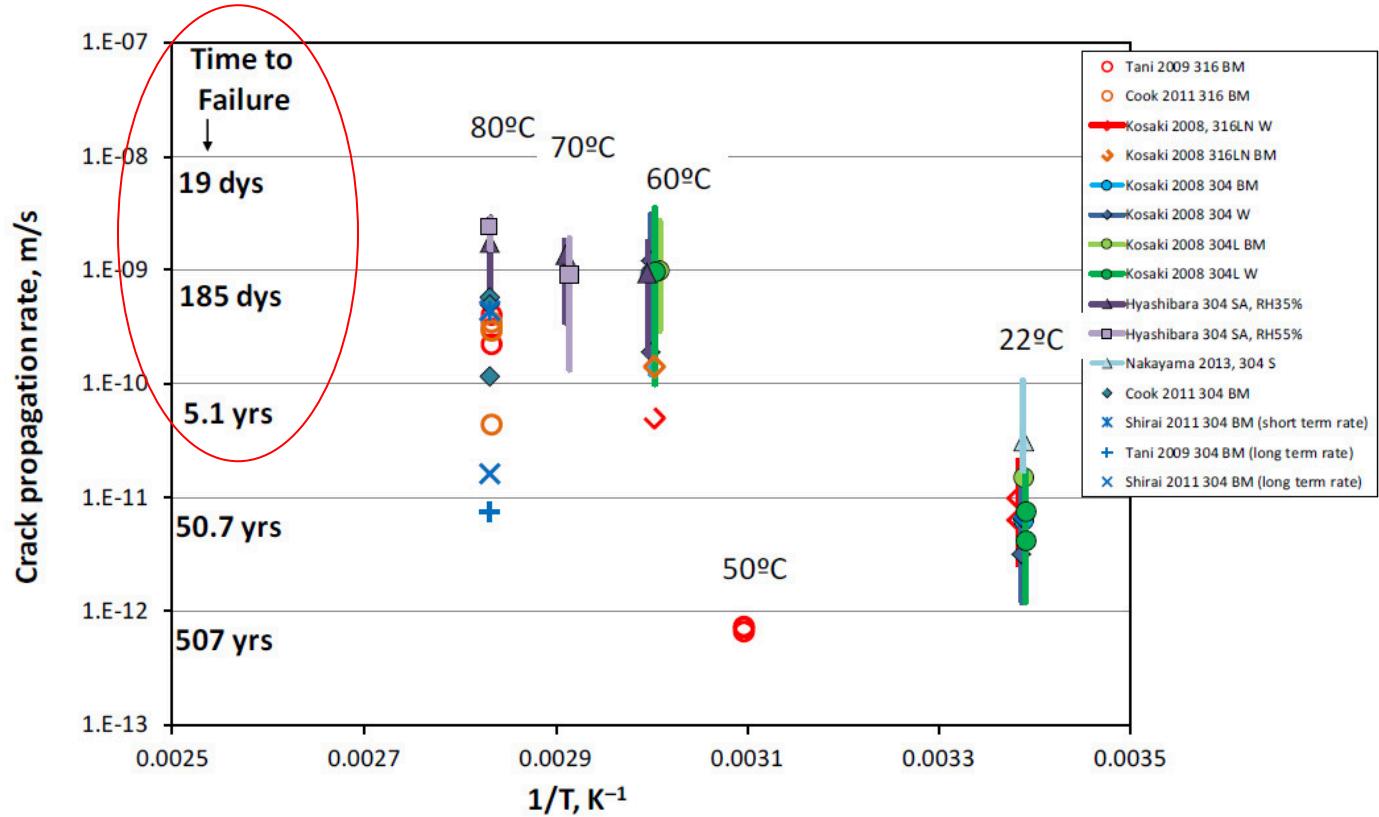


Figure E-5. SCC propagation rates for atmospheric corrosion of 304SS and 316SS. BM –base metal; W-weld sample; SA=solution annealed; S=sensitized. Bars represent reported ranges (if more than one), while symbols represent average values. Time to failure corresponds to the time required to penetrate a 0.625" thick canister wall.

ATTACHMENT – Transport

Canisters with 37 spent fuel assemblies may require up to 45 years to cool (after removal from the reactor) before they are safe enough to transport (~20 kW) per Dept. of Transportation radiation limits.

Research and Development Activities Related to the Direct Disposal of Dual Purpose Canisters, William Boyle, Director, Office of Used Nuclear Fuel Disposition R&D (NE-53), U.S. Department of Energy, Nuclear Waste Technical Review Board Meeting, April 16, 2013 <http://www.nwtrb.gov/meetings/2013/april/boyle.pdf>

Safety Evaluation Report Docket No. 71-9302, NUHOMS-MP197HB, Certificate of Compliance No. 9302, Rev. 7, Page 14

<http://pbadupws.nrc.gov/docs/ML1411/ML14114A132.pdf>

Note: The only NRC approved high burnup transport cask is the NUHOMS MP197HB.



Long-Term Performance Challenges

Nuclear Energy

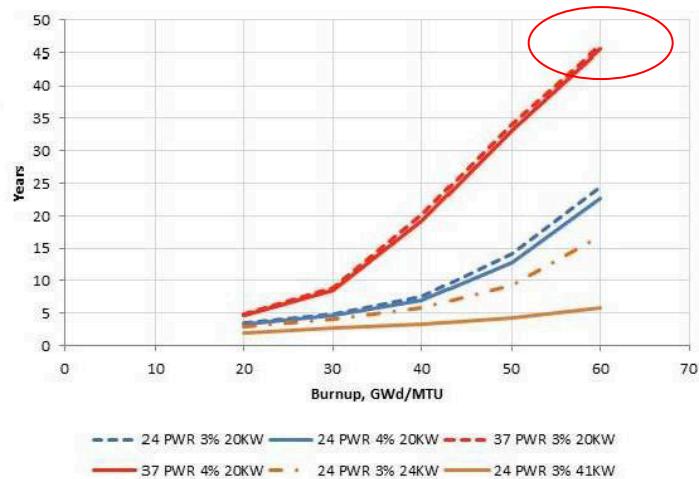
Thermal Load Management

- DPCs are now loaded at about 20 kW
- Canister design storage limits are typically 24 kW, maximum currently available is rated to 40.8 kW for storage
- Hottest waste packages considered for Yucca Mountain emplacement were 18 kW
- Other repository design concepts call for much cooler waste packages (e.g., SKB calls for initial load per package ≤ 1.7 kW)

Other performance considerations

- Engineered barrier performance at elevated temperatures (e.g., clay-based backfill/buffer performance)
- Criticality control

Estimated Cooling Time for PWR fuel to Reach Specified Thermal Power, as a Function of Canister Size and Burnup



Consent Based Siting

From: Donna Gilmore
Sent: Monday, March 28, 2016 3:55 PM
To: Consent Based Siting
Subject: Response to IPC – DOE's radioactive spent fuel storage plan is designed to leak
Attachments: DOE-DesignedToLeak2016-03-28Handout.pdf

See attached DOE Invitation for Public Comment to Inform the Design of a Consent-Based Siting Process for Nuclear Waste Storage and Disposal Facilities.

Please address these issues at your public meetings and in a written response.

Thank you,

Donna Gilmore
SanOnofreSafety.org

reference: <https://federalregister.gov/a/2015-32346>

DOE's radioactive spent fuel storage plan is designed to leak

Before seeking input on consent-based siting the Department of Energy (DOE) must resolve issues that will likely result in major radiation leaks into the environment. The existing over 2000 highly radioactive thin-walled spent fuel storage canisters, each containing about a Chernobyl's worth of Cesium-137, are not safe and the DOE's proposed pilot design uses these canisters. The DOE must demonstrate that the federal government can fund, transport, and manage nuclear waste without significant radiation leaks and demonstrate the federal government can comply with existing nuclear waste laws, contracts and agreements. They have not done this.

Storage Risks

- **Existing thin (1/2" to 5/8" thick) stainless steel canisters can crack, cannot be inspected, repaired, maintained or adequately monitored.** The DOE must require systems that do not have these flaws and not accept promises of future solutions. NRC Mark Lombard: <https://youtu.be/QtFs9u5Z2CA>
- **Canisters cannot be inspected or repaired and even a microscopic crack will release millions of curies of radiation into the environment.** Holtec canister CEO Kris Singh: <http://youtu.be/euaFZt0YPi4>
- **Once cracks start they can penetrate hot canister walls in 5 years or less.** Canisters are vulnerable to cracking from marine environments and other conditions, such as air pollution (sulfites). A similar component at the Koeberg nuclear plant leaked in 17 years with numerous cracks thicker than most nuclear waste canisters. A Diablo Canyon canister has all the conditions for cracking in a 2-year old canister. <http://bit.ly/SAND2015-2175R> <http://pbadupws.nrc.gov/docs/ML1425/ML14258A081.pdf>
- **DOE plan assumes nothing will go wrong with the canisters or fuel, so no pools or other method to remediate problems has been addressed.** The current NRC approved remediation for a failed canister or fuel is to unload fuel in a spent fuel pool. DOE has no spent fuel pool or other adequate plan.
- **Near real-time radiation monitoring with public access and emergency planning are needed.**
- **Most other countries use thick-walled (about 10" to 20" thick) irradiated spent fuel storage/transport casks that don't have these problems,** such as in Germany, and Japan at Fukushima. These countries store their irradiated spent fuel casks in hardened structures for additional protection.

Transport Risks

- **Cracked canisters cannot be transported** (NRC 10 CFR § 71.85). Existing canisters may have cracks.
- **Major transport infrastructure issues and the safety of transporting irradiated spent fuel through our communities have not been adequately addressed.**
- **Canisters need up to 45 years cooling (after removed from reactor) before transport per DOT.** <http://pbadupws.nrc.gov/docs/ML1411/ML14114A132.pdf> www.nwtrb.gov/meetings/2013/april/boyle.pdf

Funding and Legal Authority Inadequate

- **Storage container requirements must be based on meeting short and long term needs, rather than on how much money Congress is willing to allocate each year.** The DOE's current recommendation is the latter (partially due to Congress redirecting existing funds originally designated for a permanent repository). The federal government must guarantee sufficient funds will be allocated for as long as the waste needs be transported and needs be stored – up to 120 years for short-term storage (per NRC definition of short-term) and for long-term storage, which is basically forever.
- **States and Tribal Nations must have legal authority and funding** to set and enforce higher standards for storage and transport, aging management, radiation levels, and emergency planning.
- **States and localities must be legally authorized to establish their own criteria for standing and volunteer status, and no further requirements may be set by the federal government except that any expression of interest must affirm that it is consistent with the requirements of Executive Order 12898 regarding Environmental Justice.**
- **Communities impacted by radioactive releases need to be adequately financially compensated.**

Once started cracks can grow through canister wall in less than 5 years

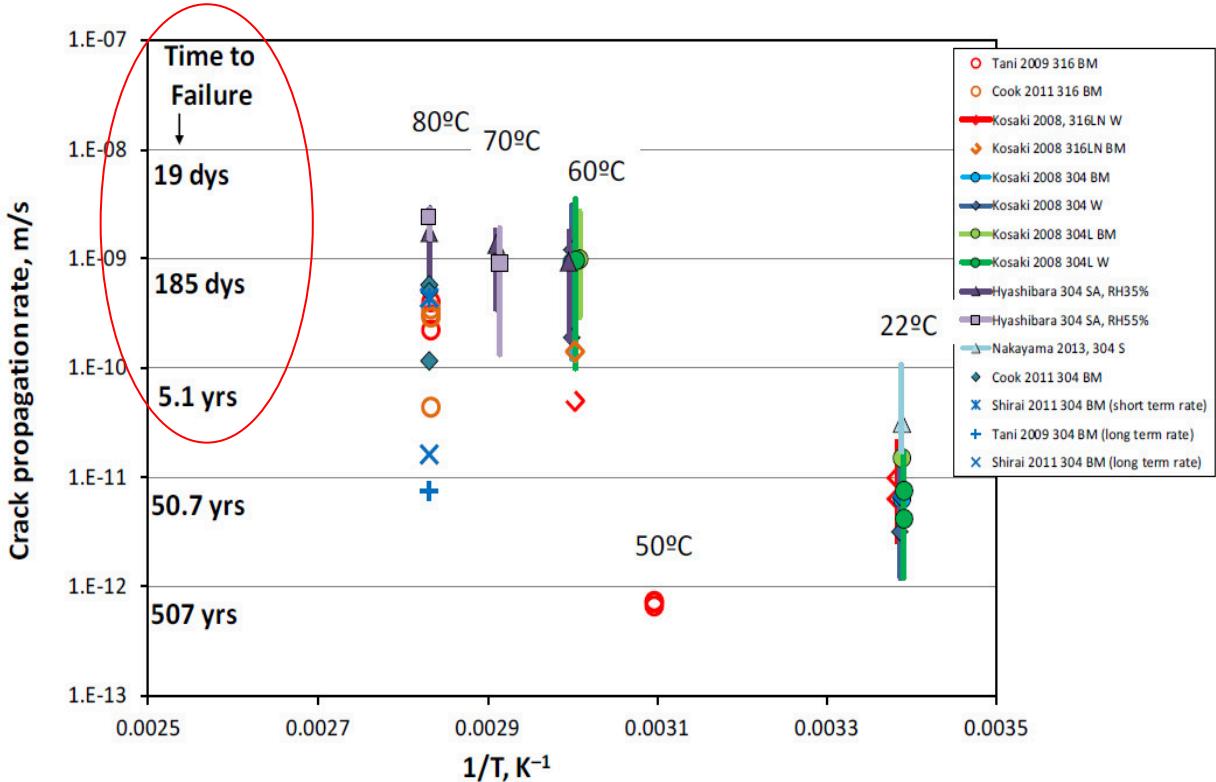


Figure E-5. SCC propagation rates for atmospheric corrosion of 304SS and 316SS. BM –base metal; W–weld sample; SA–solution annealed; S–sensitized. Bars represent reported ranges (if more than one), while symbols represent average values. Time to failure corresponds to the time required to penetrate a 0.625" thick canister wall.

Up to 45 years cooling required before meets DOT safety transport regs (~20kW)



Long-Term Performance Challenges

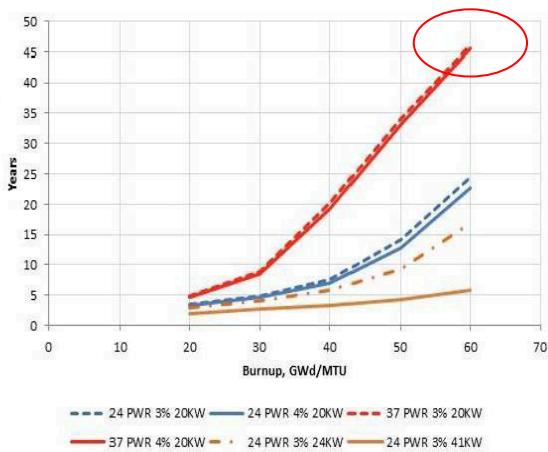
Nuclear Energy

www.nwtrb.gov/meetings/2013/april/boyle.pdf

Thermal Load Management

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Estimated Cooling Time for PWR fuel to Reach Specified Thermal Power, as a Function of Canister Size and Burnup



Other performance considerations

- Engineered barrier performance at elevated temperatures (e.g., clay-based backfill/buffer performance)
- Criticality control

Consent Based Siting

From: arthurkennedy
Sent: Monday, March 28, 2016 1:59 PM
To: Consent Based Siting
Subject: Response to IPC

I in favor of local control of both determining means of the proposed consent information gathering and of the transport and siting of nuclear waste products.

Arthur Kennedy

Consent Based Siting

From: Helen Hays
Sent: Saturday, March 26, 2016 10:10 PM
To: Consent Based Siting
Subject: response to IPC

Department of Energy,

Nuclear Power must be replaced with increased efficiency energy generation and a large increase in renewables. Also, no more high-level radioactive waste can be produced. Spent nuclear fuel must be disposed of in hardened on-site storage, thus eliminating things that can go - and have gone - wrong moving spent fuel by road, rail and/or waterway.

Thank you for your attention,
Helen Logan Hays

Consent Based Siting

From: Charles Anderson
Sent: Saturday, March 26, 2016 7:56 PM
To: Consent Based Siting
Subject: Disposing of nuclear waste

I cannot think of any case in which I would want my state to receive nuclear waste. No amount of exposure is healthy!
We do not need nuclear power plants! We have regenerative natural sources of energy that should be used!!

Nancy Anderson

San Diego CA

Consent Based Siting

From:
Sent: Friday, March 25, 2016 1:10 PM
To: Consent Based Siting
Subject: Fw: Response to IPC� [Invitation for Public Comment]

To Whom It May Concern:

The most obvious long-term solution is to not make highly-radioactive nuclear material to begin with; but given the real world and the present threat from terrorism, where there are no "safe" options for handling existing highly-radioactive nuclear material, the challenge then remains to envision affordable use and storage options that are least likely to produce a worst-case scenario.

At the top of the list: first, power plants require further hardening and security in all aspects of handling highly radioactive material, including immediate closure of most-vulnerable facilities; second, a hardened, geologically-stable site for storage of spent fuel is a matter of immediate necessity--this must be done while minimizing threats while in transport..

Time is short and warning bells have already been sounded in Europe.

Respectfully submitted,

Richard McBroom

Consent Based Siting

From:
Sent: Friday, March 25, 2016 10:38 AM
To: Consent Based Siting
Subject: Response to IPC

No Fukashimas in the US. No more nuclear plants in the US, and please shut down the aging reactors we have. Nuclear energy is NOT a safe energy source. Wind, solar, and tidal are safe.

Sent from Windows Mail
Response to IPC

Consent Based Siting

From: Mark W
Sent: Tuesday, March 22, 2016 8:38 PM
To: Consent Based Siting
Subject: Response to IPC

Would you be so thorough as to provide a more detailed explanation of the language used in your submission to the Federal Register of the United States of America? It is of the most critical concern as to the operations of the Department of Energy, and their lack of clarity concerning nuclear waste. SPECIFICALLY, I am inquiring as to the nature of this notice, AND THE LOCALITIES, STATE AND CITY/TOWN LEVEL, WHICH ARE IN QUESTION. Thanks.

Sent

Consent Based Siting

From: Richard Longley
Sent: Thursday, March 24, 2016 8:10 PM
To: Consent Based Siting
Subject: Response to IPC

No to Mobile Chernobyls or parking lot dumps.

Richard Longley

Consent Based Siting

From:
Sent: Thursday, March 24, 2016 3:51 PM
To: Consent Based Siting
Subject: Response to IPC

Thank you for the opportunity to comment of this proposed process.
I am Lynn Biddle, writing as an individual, living at . I can be reached at and .

Although it is important to me, my comment does not address any particular question, and should be classified as an Additional Comment.

Sincerely,

Lynn Biddle

Consent Based Siting

From: Glenn Mitroff
Sent: Thursday, March 24, 2016 3:16 PM
To: Consent Based Siting
Subject: Response to IPC

I urge the DOE to replace nuclear power as soon as humanly possible. This should be accomplished through energy conservation and renewable energy sources.

It is unconscionable to continue producing high-level nuclear waste which could result in unending tragedies such as Chernobyl and Fukushima.

Existing waste should be contained in hardened on-site storage. The risk is too high to ship high level nuclear waste by rail, road or waterways which compromise major population centers such as Chicago or on Lake Michigan or the other Great Lakes.

Glenn Mitroff

Consent Based Siting

From: Mari Mennel-Bell
Sent: Thursday, March 24, 2016 1:46 PM
To: Consent Based Siting
Subject: response to IPC

TO Whom It May Concern:

This email is to advocate for [Hardened On-Site Storage](#), and against [risky shipments by road, rail, and/or waterway](#) through places like downtown Chicago, or on Lake Michigan, bound for nonsensical centralized interim storage sites.

Said another way, [no Mobile Chernobyls or parking lot dumps](#)

Sincerely,

Mari Mennel-Bell & Joel Greenbaum

Consent Based Siting

From: Rosemary Doyle
Sent: Thursday, March 24, 2016 11:35 AM
To: Consent Based Siting
Cc:
Subject: IPC

Michigan is recovering from the Flint water crisis where it has been determined that government regulators were not informed of the hazards of old pipes. I use this as a model for decision-making on depositories for high level radioactive nuclear waste; Please note that science has said there is no safe depository mechanism in place as yet. The radioactive waste can last a million years. I do not want me or future generations to live with this threat. Ask science to develop a process to reduce the radio active threat to humankind. Please do not allow transport or burial of this waste until a solution is developed.

Rosemary Doyle

Consent Based Siting

From: Mike Strawn
Sent: Thursday, March 24, 2016 12:10 AM
To: Consent Based Siting
Subject: Response to IPC

From : Michael Strawn, Warren, MI.

3. Who should be involved in the process for selecting a site, and what is their role?

Everyone who lives in the state of siting should be allowed to vote on the question of siting within that state. Those who are still in high school, ninth grade or above, should be allowed to vote on the question as well, since they are capable of understanding what they are voting on and since they will be living with the nuclear waste for their entire lives (unless they happen to move away).

In addition, in a separate election, everyone who lives in the county of siting should be allowed to vote on the question of siting within that county as well.

5. What else should be considered?

The very idea of transferring responsibility and liability for the nuclear waste to the federal government is a really, really bad idea and should not be pursued. Those who did not benefit from the nuclear energy should not be forced to pay any part whatsoever of the costs of storing the consequent waste.

Consent Based Siting

From:
Sent: Wednesday, March 23, 2016 6:07 PM
To: Consent Based Siting
Subject: QUESTION ON IPC

Hello DOE,

Just a heads up... no complaint or criticism intended...

You have an upcoming meeting - the Consent Based Initiative – Chicago Tues. March 29, 2016. We realize you have posted a Federal Register Notice fulfilling formal obligations but it seems you may not be aware there presently is no informational notice on the DOE's respective web outreach page on this Chicago meeting initiative.

Thomas P. Rielly
Executive Principal
Vista 360

Consent Based Siting

From:
Sent: Wednesday, March 23, 2016 5:56 PM
To: Consent Based Siting
Cc: Thomas Rielly
Subject: Question on IPC

Hello DOE,

Could you please provide us with the names, titles and Departments/ Divisions of the respective DOE staff attendees who will be present at the upcoming CHICAGO, ILLINOIS CONSENT BASED SITING PUBLIC COMMENT INITIATIVE – Tuesday, March 29th, 2016 pursuant to the Federal Register Notice.

Advise of who will be heading the field visit also appreciated?

Is there a Federal Facilitator? If so Who?

Are DOE contractors also included in the visit? If so Who?

Is there or will there be a formalized agenda for the visit? Please remit accordingly.

Thank you and advise accordingly

Thomas P. Rielly
Executive Principal
Vista 360

Consent Based Siting

From: Elizabeth Garratt
Sent: Wednesday, March 23, 2016 5:30 PM
To: Consent Based Siting
Subject: Response to IPC

Nobody wants or deserves nuclear waste to be anywhere near them! In fact, we should get rid of nuclear power all together before the next storm wipes out the power grip thus causing nuclear plants to go into meltdown (i.e Fukushima.)

Consent Based Siting

From: elaine bitzel
Sent: Wednesday, March 23, 2016 4:33 PM
To: Consent Based Siting
Subject: Owner's of Nuclear Waste

Whoever (the corporations?) are that are gaining from the creation of the waste of nuclear reactors should be required to deal with the waste. No foisting it off on innocent people and their communities. Because from past practice we know that only the poorest communities will be asked to participate. This is so not fair.

Long range, nuclear waste will still be a problem. Let's stop creating it in the first place. What a novel idea!

E. Bitzel

Consent Based Siting

From: Mark M Giese
Sent: Wednesday, March 23, 2016 1:25 PM
To: Consent Based Siting
Subject: Response to IPC

DOE is not asking how a community can refuse to consent, nor to express permanent “non-consent.”

The DOE process is intended to seek a means of establishing consent for both permanent and "interim" radioactive waste storage concepts. But since an "interim" radwaste dump could easily become a de facto permanent site, what does consent to a "temporary" storage concept really mean?

No consideration of the rights or consent of those along radioactive waste transport routes is being made or requested. Although one of the greatest dangers to the most people, environments and ecosystems is the movement of tens of thousands of tons of nuclear waste on roads, rails and waterways, DOE stated at its Washington DC 'kickoff' meeting that there is complete federal preemption over transport of nuclear waste so that would not be part of the process.

There is no mechanism for consideration of the rights of future generations that inevitably would be affected.

The nuclear industry is eager for volunteers or consenting communities to take the waste off its hands and for DOE to take title to it. As long as the lethal waste remains on its property, the reactor owners own it -- as they should.

These issues need addressing.

Thank you.

--Mark M Giese

Consent Based Siting

From: David Helkenn
Sent: Wednesday, March 23, 2016 12:19 PM
To: Consent Based Siting
Cc:
Subject: Response to IPC

Hello,

I understand the DOE is asking for comments concerning obtaining 'consent' for disposing of nuclear waste. these are my comments:

1. Given the Nuclear Regulatory Commission's (NRC) past performance on even regulating or controlling this industry, I do not believe anything the NRC says about anything related to this topic. I used to think my government told the truth, but it is now the case that the government's statements are false... that is, a lie. The DOE does not fair much better as the tendency is to protect and promote the nuclear industry at the expense of public concerns and safety. Therefore, asking for comments on getting 'consent' by the public is a sham of the first order. After all, the DOE and NRC have a history of making sure the industry 'commenters' have preference. I know about planting shills.

2. I want no waste storage in California. I mean NO STORAGE at all -- temporary (another word for permanent) period. I am in favor of putting a reduction plant on site to render the waste absolutely neutral. I know that is expensive, but the alternative is way more expensive -- as in illness, death, and ecological and environmental disasters! Just look at Japan's experience! Talk about political lies and propaganda and its nuclear industry's 'honesty' and 'forthrightness'! What a lesson!

3. I think some terms need definition and clarity. What does "consent" actually mean? Whose voice will proclaim "consent"? What does 'temporary' even mean? How will it be defined? Many, many more questions like that.Until the parameters of the discussion are better understood, NO WASTE STORAGE IN CALIFORNIA -- EVER!!!

4. If you really want to find a place to store the waste, select the home and neighborhoods of the wealthy. How about the home of the CEOs of the nuclear industry?! How about the home of the Secretary of the DOE? Put the stuff in their neighborhoods. It need not be much. How about just a single ton of the stuff within a thousand yards of their neighborhood and school, perhaps next to their source of drinking

water! After all, it is safe in all those containers, right? What's to worry?

Sincerely,
David Helkenn

Consent Based Siting

From: Philip Jamtaas
Sent: Wednesday, March 23, 2016 12:17 PM
To: Consent Based Siting
Subject: Response to IPC

My feeling as to what it would take for me to consent to accept nuclear waste in my region:

I would never consent, even for a gazillion dollars, to have nuclear waste deposited in my state.

I have never consented to its creation in the first place.

We don't even need nuclear power plants, let alone their toxic byproducts.

Put it in the backyards of the politicians and energy CEOs who thought it was such a great idea.

Then dismantle the plants and never build another one again.

As for medical waste, maybe we should protect it in containers capable of withstanding a rocket malfunction, and send it to the sun.

Sincerely,

Philip Jamtaas

Consent Based Siting

From: Ann Rennacker
Sent: Wednesday, March 23, 2016 11:59 AM
To: Consent Based Siting
Subject: Response to IPC - Consent to store Nuclear Waste

There is no safe place to store Nuclear Waste along the California Coast, as we are riddled with seismic fault lines and subject to intense earthquakes. I live in Fort Bragg, Ca which is the site of the superfund cleanup where the G/P Corporation had a sawmill, and for the past 12 years it has been undergoing toxic cleanup under the eye of the Department of Toxic Substance Control (DTSC). The work on toxic removal and remediation on the wetlands and Mill Ponds is just beginning. This is the worst area in the cleanup plan, due to the fact that toxins were burned in the Power House, including Nuclear waste and other toxics that were trucked in and burned at night. There are 32 feet of dioxin sludge with heavy metals in the Mill Pond, and many people here have had tumors and cancers.

I object to the plan to move radioactive waste from sites of origin to communities in storage containers across our roads, rails, or waterways. There will be spills or accidents resulting in seepage or leakage that will result in danger and risk to people, wildlife, environments and ecosystems which could endanger future generations. I was very unhappy that our City Council agreed to Land Use Covenants with DTSC that allow a certain amount of toxins to remain after the cleanup, and we certainly do not want any Nuclear Waste in our communities! Our Coast will not consent to being subjected to accepting and nuclear waste, and we worry about the transport routes of the materials. Today in Fort Bragg we are having a test of our Tsunami warning systems, as it is just a matter of time before we have another earthquake event. We are directly across the Ocean from the Fukushima meltdown, which is spilling thousands of gallons of nuclear waste into the Pacific Ocean every day. Nuclear energy is dangerous, and we want to move to clean and renewable energy sources as soon as possible. Our old leaky Nuclear Plants at San Onofre and Diablo Canyon are huge problems, and they must be dismantled and removed, but what is the plan to transport the nuclear waste? And where will it end up?

Let the public know what the federal plans are over transport of nuclear waste and give us a comment period before trying to find places where communities will accept this waste. Consent is not possible until we know the plan. It will affect the future generations and environments where it is taken for storage in a negative way. Americans want to leave a healthy and beautiful planet for our future generations.

Thank you, Ann Rennacker

Consent Based Siting

From: Jean Lindgren
Sent: Wednesday, March 23, 2016 3:30 AM
To: Consent Based Siting
Subject: Response to IPC

In response to your questions:

(1) How can the Department of Energy ensure that the process for selecting a site is fair?

By very carefully examining the proposed site in relation to the nearby population, its affect on the environment, and also geologically...what is under and around it? Most importantly, by soliciting input from the people most directly affected by the site and complying with their concerns and demands.

(2) What models and experience should the Department of Energy use in designing the process?

Public input should head your list in the process component. That input should be taken very seriously. It must be very obvious to you by now that nuclear waste sites leak radioactive material...that's a given. For example, the Hanover site in Washington has been leaking for many years and very negatively affecting the health of those who live near it. There is no such thing as a completely "safe" nuclear waste site. Do we really need/want more of them???

(3) Who should be involved in the process for selecting a site, and what is their role?

The ordinary people who will be living near the site should have the defining say as to where a site is or is not located.

(4) What information and resources do you think would facilitate your participation?

I'm not open to having any nuclear waste site located anywhere in California. That said, I would be very willing to express my ideas and opinions on the subject if asked to do so.

(5) What else should be considered?

First of all, nuclear energy should be phased out completely, we don't need it. The technology is available right now to totally supple the energy needs of everyone in the country using renewable energy: solar, wind, hydro, geothermal, as well as ocean currents and at a reasonable cost. Secondly, serious research must ensue to discover a way to totally neutralize all existing nuclear waste so that it is safely disposed of with no remaining toxicity.

Thanks for considering my comments.

Jean Lindgren

San Francisco, CA

Consent Based Siting

From: Rich Yurman
Sent: Wednesday, March 23, 2016 1:23 AM
To: Consent Based Siting
Subject: resonse to IPC

There is sufficient scientific evidence to show that there is no safe level of nuclear radiation, especially radiation generated by the nuclear industry. And the storage of nuclear waste has to be such that there can be no leaks or spillages for thousands of years.

No technology exists to that will can create safe storage for these vast time periods.

It follows that no nuclear storage facilities ought to be created; all new industrial nuclear activity ought to cease and all the moneys that would have gone into these endeavors, both public and private funds, ought to be directed toward finding a sane way of dealing with the huge amounts of nuclear waste (industrial, medical and military) that already exist.

Richard Yurman

Consent Based Siting

From: robert raven
Sent: Wednesday, March 23, 2016 1:03 AM
To: Consent Based Siting
Subject: IPC

Protect the People from nuclear accidents on our roads and railroads, in our cities and neighborhoods!
Close nuclear power plants! No good solution for wastes, danger of accident or terrorism, they heat air and water!

Consent Based Siting

From: Daniel Ferra
Sent: Wednesday, March 23, 2016 12:16 AM
To: Consent Based Siting
Subject: Poisonous Nuclear Waste !

There is No More Room For Nuclear Poisonous Elements !

"We fool ourselves if we are not deeply alarmed by the recent news about the state of global warming. According to [new data released](#) by the US National Oceanic and Atmospheric Administration, measurements taken at the Mauna Loa Observatory in Hawaii show that carbon dioxide (CO₂) concentrations jumped by 3.05 parts per million (ppm) during 2015, **the largest year-to-year increase in 56 years of research**. 2015 was the fourth consecutive year that CO₂ grew more than 2 ppm.

Scientists say they are [shocked and stunned](#) by the "unprecedented" NASA temperature figures for February 2016, which are 1.65°C higher than the beginning of the twentieth century and around 1.9°C warmer than the pre-industrial level." Climate Red Alert

We Are All Ready Baked in to a Record Breaking Temps., Wind, Rain and Snow That are HIGHER, Than EXPECTED ! We are going to go Off the Charts !

GREENLAND !

The Koch bros. Warren Buffet, and Bill Gates and Their Fossil Fuel Agenda,

Killing us And Destroying Our Life Sustaining Fragile Eco-Systems !

There is No Atmospheric Budget of Carbon, Methane, or Nuclear !

by Lowana Veal, November 23, 2015

Reykjavik, Iceland - Over the past year, a number of giant, mysterious holes have emerged in Siberia, some as deep as 200 metres.

Scientists say the craters may be emerging because the frozen ground, or "permafrost," that covers much of Siberia has been thawing due to climate change.

Allowing methane gases trapped underground to build up and explode !

Permafrost is ground that is permanently frozen, where the ground temperature has remained below 0 °C (32 °F) for at least two years. It covers about a quarter of the northern hemisphere's land surface.

"Permafrost soils contain vast amounts of carbon, nearly twice as much as is currently in the atmosphere.

As the permafrost thaws in a warming climate, the soil decomposes and releases carbon to the atmosphere as carbon dioxide and methane. These are greenhouse gases, and they warm the Earth even more.

This leads to more permafrost thawing, more carbon release, and so the cycle continues," Chadburn said.

At the recent Arctic Circle Assembly in Reykjavik, Iceland, Max Holmes from the US-based Woods Hole Research Center (WHRC) said in a presentation that the Siberian sinkholes "are an additional indication that vast changes are under way in the Arctic."

We must Stop the Koch bros, Warren Buffets, Bill Gates, and their Fossil Fuel allies from FUKUSHIMIATIZING Us !

Greenland is Melting and Calving Now, Jonas just went over Greenland at above Freezing Temps, for the first Time.

"And for the Winter of 2016 it's possible that the Arctic may never experience typical conditions.

For, according to NOAA, the first half of February saw this record, Spring-like, warmth extend on through today.

It's as if these coldest zones in the Northern Hemisphere haven't yet experienced Winter

— as if the freak storm that drove Arctic temperatures to record levels during late December has, ever since, jammed the thermometer into typical April levels and left it stuck there. " Robert Scribbler

Greenland has 20 Feet of Sea Level Rise !

Now is the Time for Feed in Tariff Clean Kilowatts, Home Owners and Commercial Business owners selling Renewable Energy, Wind and Solar to the Utility !

Dump Net Metering (Second Utility) Third Party Leasing.

Protect Our Communities with Solar Policies that keep the Money in the Wallets and Purses of Head of House Holds.

In Order to Ready Themselves for coming, Record Breaking Rain, Wind and Snow.

Food Shortages, High Temps, Floods, Fire, Quakes, and Sea Level Rising 220 feet !

With Ca. Residential and Commercial Feed in Tariff

Help Protect Hard Working, Tax Paying, Voting, Citizens from our Koch Bros, Warren Buffet, Warren Gates, Fossil Fueled Energy and Water Policies !

Each 1C. Temp Rise, Atmospheric Moisture increases 7%

We have increased Temp 1.4C. and Climbing

1850 ppm Carbon 270

1980 ppm carbon 350

2015 ppm of Carbon 405 and Rising

What will the ppm of Carbon be when Greenland All Melts ?

Diablo Nuclear, San Onofre Fuel Rods, and All Nuclear needs to be relocated to 3000 feet above Sea Level

Over 3 Million Years of Waxing and Waning From the Poles, with the Arctic Keeping North America Cool, Now it is Greenland Because of Fossil Fuels !

Massive Sea Life Die Off on Pacific and Atlantic Coast !

Pacific and Atlantic Oceans 4 - 18 degrees warmer than Normal

Antarctica has 200 feet of Sea Level Rise

Arctic Region Warming Twice as fast as the rest of the planet !

Over 400 Nuclear Reactors at Sea Level Now !

Sign and Share for a Ca. Residential Feed in Tariff. Go to the youtube site, look six inches below video, click on Show More, then click on blue link to sign the petition.

<https://www.youtube.com/watch?v=v9GRkZMTqCs>

Attachments area

Preview YouTube video We Need To Ban Fracking.

We Need To Ban Fracking.

Attachments area

Preview YouTube video We Need To Ban Fracking.

Consent Based Siting

From: Carolyn J Wheeler
Sent: Wednesday, March 23, 2016 12:04 AM
To: Consent Based Siting
Subject: radioactive waste

What are you doing? Everyone knows there is no safe place for radioactive waste and that one spill can and does affect the entire planet! Why have we not switched to other forms of energy production? Nuclear is NOT cheaper considering the longterm hazard & cost. The middle of the desert is the furthest place for people, seems like the only logical place for it. Still not safe and never will be.

Carolyn Wheeler

Consent Based Siting

From: Darcy Skarada
Sent: Tuesday, March 22, 2016 11:08 PM
To: Consent Based Siting
Subject: Let's get to the principle of democratic process

It is a ruse to discuss terms of consent if there is no choice to refuse consent! This is basic.

Darcy Skarada

Consent Based Siting

From: Tache
Sent: Tuesday, March 22, 2016 10:51 PM
To: Consent Based Siting
Subject: Response to IPC

Sirs and Mesdames,

I don't believe there is any way that people will consent to having a facility for nuclear waste in their area. Not temporary, not permanent. The dangers are too great—in the present and for future generations. My family would never allow for a waste facility anywhere near us. The routes to and from the facility would also be too dangerous.

In fact, nuclear energy is simply too dangerous an option. I do not know one person in favor of it. So forget about waste facilities. Forget about nuclear energy. Human beings make mistakes—think Chernobyl. Designers make mistakes—think General Electric's design of Fukushima. Of the design of San Onofre. Nuclear plants leak—think Hanford and Three Mile Island, and we know many of them have leaked.

Nuclear energy is too dangerous for our world, for human beings.

So please just drop it. Invest in wind, in solar, in wave motion, in geo-thermal.

Thank you.

Janet Tache

Consent Based Siting

From: Diane Harper
Sent: Tuesday, March 22, 2016 10:28 PM
To: Consent Based Siting
Subject: Response to IPC

I do not want any nuclear waste in California that does not originate in California. As for my city, Long Beach, California, NO storage not interim, not permanent. California is a land of earthquakes. Hundreds of them every day. While most are small, we're cautioned that the big one is coming soon. The San Andreas fault is way overdue for a big quake. Long Beach has not had a big quake since 1933 6.4 and that one nearly destroyed this city, .October 1987 Whittier Narrows 5.9. October 17, 1989 Loma Prieta 6.9, April 25, 1992 Cape Mendocino 7.2, an aftershock on the 26 6.5, January 17 1994, Northridge 6.7, August 24, 2014 Napa 6.0. The San Francisco quake of 1906 was 7.8. All of these earthquakes are from CalTech University.

The list I have lists 39 large quakes.Cape Mendocino has had 5 large quakes from 6.5 (2 quakes) to 7.2 (3 quakes)

Sincerely,
Diane Harper

Consent Based Siting

From: Mark W
Sent: Tuesday, March 22, 2016 9:12 PM
To: Consent Based Siting
Subject: RESPONSE TO IPC

Would you be so thorough as to provide a more detailed explanation of the language used in your submission to the Federal Register of the United States of America? It is the the most critical concern of he people, and to those involved with the DOE, their lack of clarity concerning nuclear waste. SPECIFICALLY, I AM INQUIRING AS TO THE NATURE OF YOUR SUBMITTED NOTICE(S), AND THE STATE/CITY/TOWNS THAT ARE IN QUESTION.

thanks

Consent Based Siting

From:
Sent: Tuesday, March 22, 2016 9:05 PM
To: Consent Based Siting
Subject: Response to IPC

(1) How can the Department of Energy ensure that the process for selecting a site is fair?

The company/utility that created the radioactive waste should bear the full cost of the site; construction, management, monitoring, and maintenance. They should also bear all liabilities related to the site. They should also hold funds in escrow to cover future costs in case they were to go bankrupt.

(2) What models and experience should the Department of Energy use in designing the process?

The DOE should review successful and unsuccessful sites that are currently in use or shut down in order to determine the best qualities.

(3) Who should be involved in the process for selecting a site, and what is their role?

The residents of the state should be contacted for a vote on approval or not.

(4) What information and resources do you think would facilitate your participation?

Provide a list of all the costs involved and who will pay for them. Provide a list of all the risks involved and who will be responsible / liable for any problems. Provide an emergency response plan that details what will be done if there are problems. Provide details on the oversight, monitoring, and auditing of the site that will be performed and how this information will be made available to the public.

(5) What else should be considered?

The physical location of the site in comparison to potential natural disasters (earthquake, hurricane, etc). The watershed and potential migration of contaminants if there was a leak.

Thanks,
Paul Weber
Petaluma, CA

Consent Based Siting

From: Chris Casper
Sent: Tuesday, March 22, 2016 7:27 PM
To: Consent Based Siting
Subject: Response to IPC - NO "consent" to accept nuclear waste

I live in the Midwest & I do not give you nor any other organization consent to use any land for nuclear waste storage, either permanent or "interim". The very idea of temporary storage sites is ludicrous, how do tons of toxic waste get moved from one site to another safely? If certain sects of our Government want nuclear plants for energy then I say they, along with all the people who work for nuclear power plants, need to take that toxic waste home with them, store in their own yards & see how safe it is. This proposal certainly isn't more illogical than what's proposed.

I have an idea, how about we STOP all nuclear power right now & stop trying to create more plants. How about we work on fully developing solar & wind & use some common sense for once. So many aspects of our culture is just plain WRONG. Let's finally get this right.

Thank you.
Chris Casper
Stevens Point WI

Consent Based Siting

From: Dennis
Sent: Tuesday, March 22, 2016 7:15 PM
To: Consent Based Siting
Cc: ; Dr Chris Busby; Clair Tomlinson; Bill McIntyre; Daghda Vision-
Subject: An alternative to burial of nuclear waste: The Roy Process - Professor Christopher Busby explains why 'burying' nuclear waste will not work

Dennis F. Nester

To. The United States Department of Energy,

Dear Sir or Madame,
An alternative to burial of nuclear waste: The Roy Process

Conduct a proper test for 'proof of process'. Measure the decay heat. Independent scientists said the Roy Process was 'entirely feasible'. This unique method 'eliminates' nuclear waste' to zero radioactivity plus the decay heat can generate electricity.

THE ROY PROCESS FOR NEUTRALIZATION AND ELIMINATION OF RADIOACTIVE WASTE

From an Email:

I think its simply amazing, but the Asians understood this long ago and represented the dance of the Universe as that symbol for the ying and the yang.
Dr. Roy was in a way another Tesla and represented a great danger to the psychopaths trying to eat the earth and everyone on it. He was a political prisoner of the bankers like Tesla, Werner von Braun, and others who have come to the US with a dream and woken up to a nightmare.

Website

<http://web.archive.org/web/20110430022218/http://members.cox.net/theroyprocess/>

No Time To Waste: E.I.S. - The Roy Process
for Neutralizing Nuclear Waste - About 18 min.
<http://www.youtube.com/watch?v=XnGHSnDXLgQ&feature=youtu.be>

Nuclear Storage: Explosive Developments by Chris Busby
<http://www.youtube.com/watch?v=nAl5IKAWhk0>

Regards,
Dennis F. Nester

Consent Based Siting

From: Peter and Sharron Childs
Sent: Tuesday, March 22, 2016 7:01 PM
To: Consent Based Siting
Subject: Response to IPC

There is no safe place to dispose of nuclear waste. This genie should never have been let out of the bottle.

Consent Based Siting

From: emainland
Sent: Tuesday, March 22, 2016 5:56 PM
To: Consent Based Siting
Subject: Response to IPC

There is no solution for nuclear waste disposal. The problem is intractable and impossible. The only perhaps viable working deep-granite geological repository for high-level radioactive waste I've heard of is located in Sweden. Another such depository is located in Finland. Unless similar sites can be found in the United States, the only consent I'll approve is sending high-level radwaste to Sweden. Just don't ship it anywhere near where I live. Meanwhile, the best that can be done is store the radwaste on site at nuclear power plants, in casks, as impenetrable as possible, until such time as a viable solution, if any, can be found. And stop producing more of it — that is, phase out nuclear power as quickly as possible, replacing it with renewables and efficiency. A dollar spent on new nuclear power buys less energy and less greenhouse-gas emissions reduction than a dollar spent on any other cleaner and more practical alternative resource.

Consent Based Siting

From: David Osinga
Sent: Tuesday, March 22, 2016 5:01 PM
To: Consent Based Siting; Personal - David Osinga
Subject: Response to IPC

"Consent" to dump nuclear waste in America's back yard is not going to be approved by the American people, no matter how your PR Strategists message the lipstick on that pig.

There has been a generational change in the attitude of constituents, Millennials are on their way to the polls.

- 1) You're asking for consent without telling constituents how much nuclear waste a community would be consenting to accept, of course it's impossible to consent to a project without defining its basic parameters!
- 2) Abdicating transportation regulatory oversight to protect communities en-route to a waste disposal facility to federal preemption over transport are not satisfactory conditions for consent!
- 3) Displacing responsibility for nuclear waste from reactor owners, by shipping it off to "consenting" communities is not a satisfactory condition for community consent!

In case you haven't noticed, there is a progressive swing sweeping the nation after 30 years of Corporate graft and corruption and legislative malfeasance. If you thought this has been a contentious issue to date...

The Dept of Energy and Nuclear Regulatory Commission are both populated with old tone deaf industry memes! Even defense contractors have been transitioning to modern Life Cycle Engineering standards over the last 20 years... Looks like the DOE and the NRC need to do a lil refresher on current engineering standards to get up to speed!

You'd think the nuclear research and nuclear power generation sector's history of exposing the public to radio isotopes, the crappy reactors GE supplied to plants like Fukushima, and generally poor maintenance and upgrade standards required for nuclear power generating facilities in current operation would be enough to re-think the viability of the mythology of "safe" nuclear power.

Keeping nuclear reactors in service across America just increases our collective risk from malevolent terrorist threats.

Time to finally and fully commit to Alt energy research and infrastructure development!

Apparently Americas nuclear power lobby will stop at nothing to preserve their financial stake in the nuclear sector of the energy market.

David Osinga

Consent Based Siting

From: Carla
Sent: Tuesday, March 22, 2016 4:27 PM
To: Consent Based Siting
Subject: "Response to IPC"

First let me say that without ripping off tax paying citizens to subsidize the nuclear energy cartel, there would be no nuclear power plants. Without the massive, high financed relentless and dishonest ad campaigns stuffed down our throats about the benefits of nuclear energy, people would understand the threats and eviscerating realities caused by the nuclear cabal and its profiteers.

The nuclear enterprise, the NRC and the DOE threaten everything on earth. Their combined lack of rational assessment and comprehension is astounding, the dismissive basis upon which they misinform people, and the overt denial of devastating impacts worldwide caused by the psychopathic greed for profiteering, keeps us all hanging in the balance.

There is no way that I or anyone I know would 'consent', for any reason, to the madness of trucking nuclear waste anywhere. It's a brainlessly outrageous notion that any of us would agree to take on the burden so the above mentioned psychopaths can implement 'solutions' to the impossible disposal of this waste. Even insurance company big shots understand enough not to cover this form of energy generation.

Japan has gone back 'online' despite the ever present poisons being leaked from Fukushima, the huge rates of cancer, opposition by the people, and the very real devastation to families and culture. On the west coast we're finding massive quantities of infected objects and radiated fish.

In case you haven't noticed, and as a reminder, we still have the sun, the technology and the absolute appeal of going solar.

Wake up!

Consent Based Siting

From: Shaw, Henry
Sent: Tuesday, March 22, 2016 4:17 PM
To: Consent Based Siting
Cc:
Subject: nuclear energy and transport of nuclear waste

To whom it may concern at the D.O.E.,

22, March, 2016

I am a physician concerned with public health. I strongly believe that the use of nuclear energy, (using the fission process), and the transportation of the resulting radioactive waste, (and storage thereof), is an unnecessary threat to public health. It is unnecessary as the use of wind energy alone could provide more than our countries needs for electric power and if combined with photovoltaic power production we could avoid the use of nuclear and fossil fuels altogether. It just requires a change of investment to those renewable sources which I believe are more cost effective in the long run. Remember that the renewable sources of energy are FREED. We need only invest in the infrastructure and conversion of the electric grid system. Nuclear plants are very expensive and require a long time to construct. The renewable production can be put in place rapidly in a modular fashion. Storing excess power for use at later times of low wind and night time is possible. Hydrogen may be produced and stored then used in place of natural gas.

This would be a great service to the future health of our people and the preservation of our environment upon which we all depend, (consider the costs of climate change, etc.). In the long run our people would benefit economically. This should be your concern, rather than catering to the greed and self-interest of the fossil fuel and nuclear energy industries, both of which MUST change for the welfare of our society and the world.

Sincerely,
Henry H. Shaw, M.D.

Consent Based Siting

From: Lizard Blizzard
Sent: Tuesday, March 22, 2016 3:49 PM
To: Consent Based Siting
Subject: response to IPC

We would never consent to being poisoned. Poisoned from the beginning of mining radioactive substances to their use, to their waste. Radioactive forever and no way to get rid of it.

Consent Based Siting

From: Priscilla Rocco
Sent: Tuesday, March 22, 2016 3:44 PM
To: Consent Based Siting
Subject: Permanent Storage of Spent Radioactive Waste from Nuclear Power Plants

The DOE has spent decades trying to force-feed the proposed Yucca Mountain nuclear dump down the throats of Nevadans and the Western Shoshone Nation.

You want to know how to be fair, who to include in the consent process, and what resources it will take to induce community participation in the nation's radioactive waste program. However, the DOE is not defining exactly what or how much nuclear waste a community would be consenting or not consenting to accept. It is impossible to consent to a project, or not consent to accept a project, for which the basic parameters are not known. All that has been provided to the communities is diagrams of storage containers and systems, and ideas and plans for the tens of thousands of tons of nuclear waste in this country, DOE is not defining exactly what or how much nuclear waste a community would be consenting or not consenting to accept. It is, of course, impossible to consent to a project for which the basic parameters of the project are unknown.

The DOE process is intended to seek a means of establishing consent for both permanent and "interim" radioactive waste storage concepts. But since an "interim" radioactive waste dump could easily become a de facto permanent site, what does consent to a "temporary" storage concept really mean?

No consideration of the rights or consent of those along radioactive waste transport routes is being made or requested, although one of the greatest dangers to the most people, environments and ecosystems is the movement of tens of thousands of tons of nuclear waste on roads, rails and waterways. Even the DOE stated at its Washington DC 'kickoff' meeting that there is complete federal preemption over transport of nuclear waste so that would not be part of the process.

In the DOE's plans there is no mechanism for the consideration of the rights of future generations that inevitably would be affected.

The nuclear industry is eager for volunteers or consenting communities to take the waste off its hands and for DOE to take title to it because as long as the lethal waste remains on its property, the reactor owners own it, but the system isn't set up to listen to the people who have already and definitively said that they DO NOT WANT ANY NUCLEAR WASTE AT YUCCA MOUNTAIN!

IT IS TIME FOR THE DOE TO FIND ANOTHER SITE FOR THE PERMANENT DISPOSAL OF NUCLEAR MATERIAL, OR SHUT DOWN ALL OF THE NUCLEAR REACTORS BECAUSE THERE IS NO SAFE WAY OR PLACE TO STORE THE SPENT NUCLEAR MATERIAL, AND NO COMMUNITY THAT WANTS IT!!!

Thank you,
Priscilla Rocco

Consent Based Siting

From: Tom Falvey
Sent: Tuesday, March 22, 2016 3:40 PM
To: Consent Based Siting

I live in a densely populated urban area, so I would never consent to local storage of nuclear waste.

If I lived in a suitable rural area my condition would be that no more of it be created. The radioactive horror we have inflicted on future generations for thousands of years must eventually be put somewhere. But we should not make any more of it.

Nuclear power is uneconomical, surviving only because of massive subsidies and insurance exemptions. It is insanely dangerous, as we should have learned by Chernobyl and Fukushima (which may yet destroy Japan). Aging plants, human error, terrorist threats - any of these could take down a continent in a matter of days. We must try to clean up the monster we have created - but not make any more of it.

Tom Falvey

Consent Based Siting

From: Lynn Manzione
Sent: Tuesday, March 22, 2016 3:34 PM
To: Consent Based Siting
Subject: solutions for the long-term, sustainable management of our nation's spent nuclear fuel and high-level radioactive waste

My father worked for DuPont at the Savannah River site--solutions for the long-term, sustainable management of our nation's spent nuclear fuel and high-level radioactive waste are impossible— Savannah River Plant used to bury their waste in the parking lot until it leached into the river and made the parking lot soil radioactive—they had to pave over it—anywhere you put this stuff... it will escape whatever you put it in--Radioactive waste is hazardous and potentially lethal to most forms of life and the environment. My father died of cancer because we didn't know the effects back then. We know them now and we must quit generating nuclear waste before the whole planet is contaminated. By the 60's the US had stockpiled mountains of radioactive garbage from plutonium production. What's to be done with 52,000 tons (47,174 metric tons) of dangerously radioactive spent fuel from commercial and defense nuclear reactors? With 91 million gallons (344.5 million liters) of high-level waste left over from plutonium processing, scores of tons of plutonium, more than half a million tons (453,592 metric tons) of depleted uranium, millions of cubic feet of contaminated tools, metal scraps, clothing, oils, solvents, and other waste? And with some 265 million tons (240 million metric tons) of tailings from milling uranium ore—less than half stabilized—littering landscapes? Plutonium or cesium or strontium or other "-ium" elements created in a nuclear reactor emit dangerous radiation that can literally knock electrons off the atoms in our cells, disrupting or destroying cellular function or even causing cells to mutate. This radiation comes in the form of tiny alpha or beta particles or gamma rays traveling with great energy. Building 771, a former plutonium fabrication center once described as the "most dangerous building in the U.S." and still a radiation threat despite partial cleanup. But it's at Hanford Site, in Washington State, where the country's greatest volume of high-level nuclear waste resides. Hanford inventory includes 53 million gallons (200 million liters) of waste from plutonium processing stored in underground tanks, nearly 2,300 tons (2,087 metric tons) of spent fuel, four and a half tons (four metric tons) of plutonium, 25 million cubic feet (707,921 cubic meters) of solid waste, and 38 billion cubic feet (1.1 billion cubic meters) of contaminated soil and groundwater. In a storage pool there the nation's most lethal single source of radiation except from reactor cores—1,936 steel cylinders containing cesium and strontium covered by 13 feet (3.9 meters) of water. Later, waste stored in underground tanks leaked into the soil, and 45 billion gallons (170 billion liters) of contaminated liquids were dumped onsite, some near leaking tanks. Thus contaminated plumes were created underground, some threatening the Columbia. The press began reporting claims of increasing rates of cancer in people and birth defects in people and animals in farm areas near Hanford. The public has been betrayed by the classified information kept secret for people's lifetimes—only to find out they have cancer and I know my father died because of where he worked!!! The government needs to start research to find better ways of dealing with nuclear waste--Yucca Mountain is no solution!—at least spend some of the government's money to protect people —follow Sweden's lead use steel containers coated with copper, which won't corrode in the absence of oxygen, imbedded 1,800 feet (549 meters) in granite (an option rejected in the U.S.) and surrounded by impervious clay to inhibit moisture transport. Or maybe Yoon Chang is right...he wants to use that fuel in an advanced "fast" reactor that, on paper, promises to burn 99.9% of the fuel, including all but 0.1% of the plutonium and its -ium friends requiring long-term storage.

Lynn Manzione

Consent Based Siting

From: Robert Elder
Sent: Tuesday, March 22, 2016 3:28 PM
To: Consent Based Siting
Subject: Suicidal consent

No rational person can give consent for a potential existential threat to be harbored in their neighborhood in the midst of their fellow citizens.

Robert Elder

Consent Based Siting

From: Ron Galen
Sent: Tuesday, March 22, 2016 3:20 PM
To: Consent Based Siting
Subject: Nuclear waste

Nuclear waste is inherently UNSAFE. We don't need more targets for terrorism.

Consent Based Siting

From:
Sent: Tuesday, March 22, 2016 3:15 PM
To: Consent Based Siting
Subject: Consent based siting is an insult to Humanity

No thinking human would ever “consent” to allowing nuclear waste anywhere in their nearby environment.

Any properly informed person would reject any such consent.

The bottom line is that we have to stop making this stuff, this radiation and heavy metals, the whole uranium cycle needs to come to a close.

Each atomic energy plant produced the equivalent of radiation of 3 nuclear bombs per day, over 1000 bombs per year per plant, over 400,000 nuclear bombs per years across the world.

If that is not the definition of insanity, then perhaps you should ask Einstein or Oppy.

Phase it out now, renewable is so much cheaper.

Steven Olsen
President and Chief Engineer
Certified Energy Manager
Pacific Energy Strategies LLC

Consent Based Siting

From: Martin Iseri
Sent: Tuesday, March 22, 2016 3:07 PM
To: Consent Based Siting
Subject: What is consent

Sirs:

The request for what constitutes consent is a flawed exercise on two counts. First, it disallows any possibility for indicating non-consent. Second, it disallows any possibility to comment on transportation of wastes.

This call for comment seems designed to manufacture "consent" to whatever DOE intends to do.

Sent from my iPhone

Consent Based Siting

From: Joachim
Sent: Tuesday, March 22, 2016 2:57 PM
To: Consent Based Siting
Subject: No nuclear waste dumps!

Nuclear waste is destroying our planet earth. I want us to do everything possible to use only natural energy sources, such as solar, wind, water, etc.

Sincerely,

Edward Lally
Grand Rapids, MI

Consent Based Siting

From:
Sent: Tuesday, March 22, 2016 1:49 PM
To: Consent Based Siting
Subject: Question on IPC

Hello,

The DOE's request for comments on the Consent-Based Siting for nuclear waste disposal sites should clarify the type of facilities that the DOE is referring to.

Some people are under the impression that this consent-based process applies to commercial interim irradiated fuel storage operations, such as proposed in Texas and New Mexico, or other commercial operations for the disposal of other types of high-level nuclear waste.

My understanding is that commercial operations will be licensed by the Nuclear Regulatory Commission (NRC) pursuant to the Atomic Energy Act and NRC regulation. My understanding is that the DOE has no official role in the siting or licensing of these commercial facilities.

My understanding is that the DOE is only seeking comments on DOE owned and operated pilot, temporary, or permanent irradiated fuel operations and other types of nuclear waste disposal sites. It is not seeking comments related to any type of commercial operation, since the siting of those operations do not require specific "community consent."

In fact, with the possibility of commercial temporary (whatever that means) irradiated fuel storage operations, it is unclear why the DOE intends to license its own pilot and permanent temporary irradiated fuel storage facility.

Another aspect of the consent-based siting process is that it does not include any discussion of the types of geologic land forms that would be suitable for permanent irradiated fuel disposal and perpetual care. No matter what type of consent a community provided, if there are no suitable geological formations, the community consent is irrelevant.

The DOE must clarify these things as soon as possible.

Sincerely,

Sarah Fields
Director
Uranium Watch

Consent Based Siting

From: Carol Joan Patterson
Sent: Monday, March 21, 2016 3:52 PM
To: Consent Based Siting
Subject: Nuclear dumps: Response to IPC

To Whom it May Concern:

Nuclear dumps are a terrible prospect for any community. Aside from that, here are some problems with your community outreach:

Who adequately represents a community and will “consent” or claim to agree to take nuclear waste? You do not define exactly what or how much nuclear waste we would be “consenting” or not consenting to accept.

You do not ask how a community can refuse or express permanent “non-consent,” although you can let them know that if you choose to.

Although you have reports, diagrams of storage containers and systems, ideas and plans for the tens of thousands of tons of nuclear waste in this country, you claim to want to negotiate with communities who would “consent” to take it forever or *supposedly* temporarily.

NO CONSIDERATION OF THE RIGHTS OR CONSENT OF THOSE ALONG TRANSPORT ROUTES IS BEING MADE OR REQUESTED. Although one of the greatest dangers to the most people, environments and ecosystems is the movement of tens of thousands of tons of nuclear waste on roads, rails and waterways, DOE stated at its Washington DC ‘kickoff’ meeting that there is complete federal preemption over transport of nuclear waste so that would not be part of the process. There is NO Consideration of the rights of future generations who will inevitably be affected.

Nuclear reactors are a disaster waiting to happen. Getting rid of the toxic waster generated is just one problem impossible to solve.

Thank you for considering my comments.

Carol Joan Patterson

Consent Based Siting

From: George Richmond
Sent: Monday, March 21, 2016 6:16 AM
Subject: Good day

Please kindly confirm receipt of my previous mail.

Thank you,
George Richmond ESQ.

Consent Based Siting

From:
Sent: Sunday, March 20, 2016 8:21 AM
To: Consent Based Siting
Subject: Response to IPC

History has proven that the government changes parameters and agreements to suit their needs. The sooner the transportation of weapons grade nuclear waste to the US and Aiken, SC in particular is stopped, because it is recognized as too dangerous for the future of our civilization and our planet, the better. To list all the human error practices contributing to health problems to those exposed, the inability to store or dispose of the toxic waste, and the threat to our air, soil and water is well known and documented.

When is our government going to start looking after its citizens now and tomorrow? Can the government do the hard but right thing and not sell our country short by bringing in highly enriched nuclear waste from other countries that will ultimately be the most expensive and fatal choice we make? Leave the waste where it is. Send our engineers over to help them dispose of it as an alternative. If government doesn't stand up for its people, who will?

I vote no to the importation of more nuclear waste.

Elizabeth Darden
Aiken, SC

Sent from my iPad

Consent Based Siting

From: Croitiene ganMoryn
Sent: Saturday, March 19, 2016 3:15 PM
To: Consent Based Siting
Subject: Response to IPC

This is unsafe. Period.

My response is NO.

Respectfully,

C. n. ganMoryn

Consent Based Siting

From: Wendy Fast
Sent: Saturday, March 19, 2016 11:57 AM
To: Consent Based Siting
Subject: Response to IPC re: "spent" nuclear storage

Gentlepersons:

Until such time as you can come up with a real plan to store so-called "spent" nuclear waste safely for the eons it will take it to no longer be a danger to us and future generations, we should STOP producing it. It is unacceptably dangerous. We don't want it near us, We don't want it transported anywhere near us. It is unacceptable that we have produced it in the first place, given that we have no idea how to actually store it safely.

Sincerely,
Wendy Fast

Consent Based Siting

From:
Sent: Friday, March 18, 2016 9:15 PM
To: Consent Based Siting
Subject: Doesn't exist

Gentlemen: No one in their right mind will consent to having nuclear waste buried, dumped, encased, floated or sent into space anywhere near them or far away. We knew when we started with this disaster of nuclear energy that the waste was not disposable in any fair and safe fashion. But you people knew better than any of us that this would be an insoluble problem at some time in the future.

The future is now. And we will not have it put anywhere in the environment, land, sea, air or fresh water. Not buried near any of the above nor sent into space.

And it's just unthinkable, with this problem looming large, that you are actually building TWO MORE REACTORS WITH SIXTY MORE IN PLANNING. With all due respect, this is a form of insanity, threatening all life on earth. Please try to learn from Three Mile Island and Chernobyl and, most of all, Fukushima. The latter is killing the Pacific Ocean and will end up probably killing all of us.

Give up all plans of finding people who will "consent" to having the waste disposed anywhere near them. And give up all plans of creating new reactors. Very truly yours, Beverly H Foster, PA

Consent Based Siting

From: Concerned Citizens for Nuclear Safety
Sent: Thursday, March 17, 2016 6:30 PM
To: Consent Based Siting
Subject: email alerts

Good afternoon,

Is there a way to sign up to receive email alerts about new postings, for example, for meeting dates and times, on the DOE website for the consent based siting process?

Sincerely,

Concerned Citizens for Nuclear Safety (CCNS)

www.nuclearactive.org

Consent Based Siting

From: Teresa McFarland
Sent: Thursday, March 17, 2016 5:20 PM
To: Consent Based Siting
Subject: Response to IPC

Dear Sirs:

I am requesting that you add the following for consideration during the Consent-based Siting process:

A way for communities to opt out permanently from storing nuclear waste ever.

A regulation that would allow all communities along the route the nuclear waste would follow to the storage site to veto the passage of dangerous nuclear waste through their community.

There is no safe place anywhere in the world to store nuclear waste long term. It must stop being produced immediately--that should be your focus. I and many other people will vehemently oppose any efforts to store waste in our communities.

Thank you for considering these points.

Dr. Teresa McFarland

Consent Based Siting

From: J Perinchief
Sent: Thursday, March 17, 2016 4:14 PM
To: Consent Based Siting
Subject: Response to IPC

To Department of Energy representatives,

There is NO WAY I would consent for my community to agree to take nuclear waste.

Sincerely,

Jana Perinchief
Sacramento, CA

Consent Based Siting

From: Allison Ostrer
Sent: Tuesday, March 15, 2016 10:52 AM
To: Consent Based Siting
Subject: Response to IPC

I do not consent to accepting nuclear waste in my community, or anywhere else in my country. I'm a citizen, voter, business owner and taxpayer. Nuclear power is the dirtiest, most dangerous form of energy generation on the planet and should be ceased immediately. Stop generating waste which cannot be disposed of, and stop radiating people and the planet.

I wish I could tell you this in person but none of the meetings are near me.

Allison Ostrer
Seattle, WA

Consent Based Siting

From: Kenneth Gibson
Sent: Friday, March 11, 2016 12:58 AM
To: Consent Based Siting
Subject: Response to IPC Re Consent-Based Siting for Integrated Waste Disposal

Please include me, at this new address, on the notice list for announcements of public meeting dates and locations. I understand a meeting is to be held in Sacramento.

Regards,

Kenneth T. Gibson
Oakland CA

Consent Based Siting

From: Sandy Gentei
Sent: Thursday, March 10, 2016 9:11 PM
To: Consent Based Siting
Subject: Response to IPC

Dear Persons Engaged in the Serious Business of the Disposal of Radioactive Waste:

It is my opinion that no one should create radioactive waste. It is too dangerous over too long a period of time. The preferred solution is to unsplit the atom. If the atom can be split, surely there is a way to unsplit it.

Thank you.

Consent Based Siting

From: Joy MacNulty
Sent: Thursday, March 10, 2016 6:55 PM
To: Consent Based Siting
Subject: Response to IPC

Under NO circumstances whatsoever would the people of my area, Williamstown, Massachusetts, ever consent to receive nuclear waste at ANY level. Williams College, a primo college of distinction among the Ivy Leaguers of New England, is here...and the world-renowned Clark Art Institute; also a singularly educated and privileged citizenry; nearby North Adams hosts the Massachusetts College of Liberal Arts and Mass MoCA (art gallery). Moreover the climate is inhospitably damp and varied, and there have been earthquakes. It is not likely that the area would ever be seriously considered as a nuclear waste repository, no matter how "temporary", but the very idea calls for a most peremptory response: **DEFINITELY NOT!!!**

Yours truly.

PS The only reasonable, doable solution to the problem of storing nuclear wastes for the period of lethal toxicity is the one proposed years ago by the eminent nuclear opponent Larry Bogart, a citizen of New Jersey, activist/educator from the '70's of the dangers inherent in the nuclear option.

He warned that a most serious and long-lasting consequence would be the storage of nuclear waste over time. It was his prediction that by the end of the nuclear era (now) no place in this country would accept the



wastes. The federal government would be compelled to take over the problem, as we see happening in our time.

The solution then would be to entomb the radioactive substances, half-life of a quarter of a million years, inside each reactor as it was shut down, and to repack the wastes on a recurring basis over that period of time, and to continually repack the containments themselves as they became dangerously radioactive over time.

It would be necessary to fence each area completely and to post armed guards, at all hours and at all seasons, not only to prevent people from accidental exposure, but also because the wastes could possibly become a desirable target of opportunity for saboteurs. And, it logically follows, he thought that the guards should become a sort of volunteer priesthood, agreeing not to marry and have children, because of the possible genetic damage from escaping radioactivity no matter what precautions were set up and maintained...

It gives me no pleasure to see his predictions verified at this point in time... I give thanks that, owing to his selfless efforts, many fewer reactors were ever built than were planned --Governor Nelson Rockefeller, during the war privy to nuclear secrets as the head of the old Atomic Energy Commission, had intended to line the Hudson with 1,000 nuclear reactors, emitting "sunshine units" of radioactivity, and supplying nuclear-generated electricity to the country...That would surely have given new meaning to the title "The Empire State..."

But the work of Larry Bogart and his Citizens Energy Council, plus a cadre of independent scientists and activists around the country, kept that from happening, simply by educating the citizens around every proposed site, who denied the utilities access, except for 104 locations.

Also the mining sites and especially the reprocessing centers must be rendered off limits to people... And even then, it is going to be impossible to reverse the genetic damage entirely... The mark of the nuclear age is now forever imprinted in the geographic history of Mother Earth...and now we have "climate change".



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Consent Based Siting

From: Eduardo Garcia
Sent: Thursday, March 10, 2016 4:12 PM
To: Consent Based Siting
Subject: Sr. Andrew Griffith

According requested by DOE my intention is to bring to your knowledge that since 1997 in France have registered with the approval confinement of toxic and nuclear waste.

No limits and volume status.

France and President Chirac gave us welcomed the solution presented and documentation of the patent.

In Chile and Argentina after more than seven years deliberating I have distinguished themselves with a huge satisfaction saying it is "obvious", the interpretation and definition is they have no doubt my proposal of safe confinement deadlines arriving neutralize the effects and contamination of these residues and contaminated products from the dismantling of plants.

If doubts or questions about the procedure I suggest, without limits can answer what comes to them as doubts or fears arise making my proposal.

Before the call for proposals, I ask that you send me a private email to dump the documentation certifying my sayings and present the summary of the patent Paris - France - 1997.

The note from the Government of France representing the President Chirac ..

Eduardo Garcia
WhatsSp
Tecnico Industrial Mechanic

Consent Based Siting

From: Connie Simkins
Sent: Tuesday, March 08, 2016 4:51 PM
To: Consent Based Siting
Subject: Lincoln County Nevada answers please
Attachments: Lincoln Co Site Based Consent answers 3-7-16.pdf

Good Afternoon Ladies and Gentlemen

Attached please find Lincoln County Nevada's answers to questions posed by DOE during the initial webinar on January 20, 2016 from Washington D.C.

If you have any questions or need further information, please feel free to contact Oversight program coordinator Connie Simkins at Connie.Simkins@doe.gov or [202-501-7000](tel:2025017000).

Have a nice day

Connie Simkins



*Board of County Commissioners
Lincoln County, Nevada*

P.O. Box 90 – Pioche, Nevada 89043
Telephone (775) 962-5390
Fax (775) 962-5180

COUNTY COMMISSIONERS

Kevin Phillips, Chair
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DISTRICT ATTORNEY

Daniel M. Hooge

COUNTY CLERK

Lisa C. Lloyd

March 7, 2016

Mr. John Kotek
Principal Deputy Assistant Secretary
Office of Nuclear Energy
US Department of Energy
1000 Independence Avenue, S W
Washington, D. C. 20585

Submitted by email to: consentbasedsiting@hq.doe.gov

Re: Consent Based Siting processes

Dear Mr Kotek

The Lincoln County Commission is pleased to respond to your invitation to submit comments on the Consent Based Siting processes. As a congressionally designated Affected Unit of Local Government, Lincoln County has been involved in this work for the past 32 years. It remains the position of this local county government to protect the health and welfare of our citizens. This Commission seeks to provide our citizens the most current and pertinent information about the full life cycle of spent nuclear fuel.

Attached please find Lincoln County's answers to the DOE questions, initially proposed during the kickoff webinar hosted in Washington, DC on January 20, 2016, in which Lincoln County participated.

Sincerely

Kevin J Phillips, Chair
Lincoln County Commission

Encl: Answers to Consent Based Siting Questions



U.S. DEPARTMENT OF ENERGY

Invitation for Public Comment Question and Answer Form

1. How can the Department ensure that the process for selecting a site is fair?

DOE must first define what it means as fair. What may be a fair process to a state may be unfair to a local government. A good starting point would be to depoliticize the siting process and to follow the law regarding siting. For example, the Nuclear Waste Policy Act, as amended, is the law and includes a process for site selection. However, DOE has elected to ignore the current law regarding siting and to seek to define a new process outside of current law. This approach to siting is inherently unfair as it has introduced a great deal of uncertainty into how siting will occur and has exacerbated the risks associated with spent fuel and high-level radioactive waste management by leaving the waste at sites all over the United States. The failure by DOE to follow existing law is also unfair to future generations as resolution of the waste management issue has been effectively delayed for 30-40 plus years. The process for selecting a site will be fair when the DOE begins to follow existing law.

2. What models and experience should the Department use in designing the process?

While many would suggest that the Department look to Sweden or other European countries for models of successful siting processes, it is important to note that the legal frameworks regarding federal, state and local governance and related land uses decisions are quite different from those in the United States. In Europe, local communities enjoy significantly greater control over land uses proposed by national governments. The process for siting defined within the Nuclear Waste Policy Act recognized the significant role of the federal and state governments in the United States regarding land use decisions and the role of local governments regarding said decisions. The Nuclear Waste Policy Act also sought to have the siting process be driven by science rather than politics. As evidenced by the consent to siting a repository at Yucca Mountain by Nye County, this process was working until Senator Harry Reid and the President agreed to allow politics to override sound science and terminate further siting work at Yucca Mountain. The DOE need only to look to the Nuclear Waste Policy Act for a sound model for achieving a science-based and equitable siting decision.

3. Who should be involved in the process for selecting a site, and what is their role?

Local government is on the front line when it comes to ensuring the health, safety and welfare of persons residing in the United States. Local governments strive to provide for the health, safety and welfare of their residents in part through making informed decisions regarding land uses. Local governments then should be foundational and integral participants in any siting process. The crafters of the Nuclear Waste Policy Act understood this important role for local governments and said role is central to the siting process contained within the Act.

What is missing from the Act, is an effective means of ensuring that an equitable package of compensation/benefits to local areas and states hosting a repository and related waste handling/transportation infrastructure is available and can be guaranteed. A weakness of the



U.S. DEPARTMENT OF ENERGY

Nuclear Waste Policy

Act has been the inability of DOE to make firm commitments to equitable compensation which has opened up opportunities for those opposed to locally supported siting options to claim that there will be no equitable compensation/benefits for hosting a repository and related waste handling/transportation infrastructure.

4. What information and resources do you think would facilitate your participation?

A repository is not likely to be sited in a metropolitan area but rather in a rural area with limited financial resources. Any area being considered as a site for a repository or for related waste handling/transportation infrastructure, whether the site has been volunteered or has been identified by DOE, should be provided financial assistance to effectively participate in all facets of planning, impact analysis, licensing, monitoring and adaptive mitigation of impacts, including emergency first response, of such repository and related infrastructure. The information most useful to and trusted by residents of areas being considered for hosting a repository or related infrastructure will be that developed by and for said residents by their local government.

5. What else should be considered?

Name: Connie Simkins, Coordinator, Lincoln County Repository Oversight Program

Contact Information:

Consent Based Siting

From: Cochran, Justin
Sent: Tuesday, March 01, 2016 1:55 PM
To: Consent Based Siting
Subject: Question on IPC: Public meeting in Sacramento

Good day,

I work for the State of California, Nuclear Policy Advisor for the California Energy Commission, and I have a few questions concerning the upcoming public meeting that will be held in Sacramento California. Specifically, my supervisors would like to know to what extent will State experts/representatives be invited and/or included?

Based upon the draft agendas for the Consent-Based Siting Public Meetings we would appreciate any insight into the following items:

1. Speaker Panel, Panelists TBD – Will a State representative be invited to sit on the panel?
2. Small Group Discussion – Will a State representative be invited to join in the small group discussions?
3. Informal Poster session – Who can present at the poster session?

Do you know when additional information concerning the Sacramento meeting will be available?

Thank you for your time and consideration.

Best Regards,

Justin Cochran, Ph.D.
Nuclear Policy Advisor &
Emergency Coordinator
California Energy Commission

Consent Based Siting

From: Abigail Johnson
Sent: Tuesday, March 01, 2016 1:39 PM
To: Consent Based Siting
Subject: Re: Please add me to the e-mailing list for consent based siting meetings and information

Thank you!

On Tue, Feb 23, 2016 at 2:30 PM, Consent Based Siting <consentbasedsiting@hq.doe.gov> wrote:

You have been added. Thank you for your interest.

From: Abigail Johnson
Sent: Monday, February 22, 2016 11:39 AM
To: Consent Based Siting <consentbasedsiting@hq.doe.gov>
Subject: Please add me to the e-mailing list for consent based siting meetings and information

Abigail Johnson

Nuclear Waste Advisor

Eureka County, NV

This is my second request to be added to an email list to receive information about upcoming meetings. I still am not receiving information. Please acknowledge receipt of this email and tell me that I am added to the list.

Thank you, Abby Johnson

Consent Based Siting

From: John Waters
Sent: Friday, February 26, 2016 11:30 AM
To: Consent Based Siting
Subject: Response to IPC

To whom it may concern:

I wanted to comment on the fact that local consent should be based on proximity to a proposed site and not simply location in a set of geographic or political boundaries. In the case of WCS, for example, the proposed interim spent nuclear fuel storage site is literally on the state line with neighboring New Mexico. More importantly, their proposed site is located within 2 miles of the City of Eunice and 13 miles from the City of Hobbs, while the closest Texas municipality (City of Andrews) is over 38 miles away. The New Mexico cities have stressed that the WCS project is too close for their comfort. D.O.E. leadership likes to ignore that fact and continually issues positive public statements on WCS's assertion that they have full local consent. That is simply NOT true. Currently with WCS, most of the employees and *all* of the financial benefits go to Texas, while most of the risk goes to the nearby communities in adjacent Lea County, New Mexico.

The federal government must consider the entire local area for consent. In the example above, if WCS is truly being considered for a national interim spent nuclear fuel storage site based on local consent, it must have official "Resolutions of Support" from all of the surrounding municipalities (i.e. the NM municipalities of Eunice, Hobbs, and Jal-which are all closer to WCS than the nearest Texas community) for the proposed site, not just the Texas communities located farther away from the actual site. Otherwise, you are left with a political solution akin to the one that created Yucca Mountain. That is that a politically-strong state imposes their will (and environmental liability) on and at the expense of a smaller and poorer neighbor solely for the larger state's benefit.

In addition to Governor and State Legislature acceptance, for a site to be acceptable from a true consent-based perspective, local communities SURROUNDING the proposed site must all be in support of the project. This support would most evident in areas where the proposed project is truly isolated from populations in all directions. Please consider this when finalizing your definition of consent. Thank you for the opportunity to comment.

Regards,

John P. Waters

Consent Based Siting

From: Marv Lewis
Sent: Friday, February 26, 2016 9:28 AM
To: Consent Based Siting
Subject: comments

Dear Secretary of Energy,

Recently the Federal Register announced an opportunity to comment on DoE's efforts regarding consent based siting of spent nuclear fuel. The effort seems devoid and lacking in considering anything but the locale of the site.

Trust is not confined to the residents off a site. Trust concerns all people who maybe irradiated by a spent fuel accident.

Can people who see infrastructure such as deficient bridges, rutted highways, excessive pressures on volunteer first responders, dangerous Bachen crude, 100+ tank car trains, ad infinitum, ad nauseum dangers trust the government to shore up infrastructure in time to meet an accident with an adequate response?

Will thin walled transportation casks be able to hold spent nuclear fuel safely in an accident and decades afterward?

Will a people who have seen many nuclear accidents ever welcome a danger that can make their community a Nation Sacrifice Area forever.

I wish i could say,

Respectfully submitted,

Marvin Lewis, R. P. E. (RETIRED.)

Consent Based Siting

From: Allison Fisher
Sent: Tuesday, February 23, 2016 2:25 PM
To: Consent Based Siting
Cc:
Subject: RE Public Meetings

February 23, 2016

Mr. Andrew Griffith
Associate Deputy Assistant Secretary of Fuel Cycle Technology
Office of Nuclear Energy
Department of Energy

RE: Invitation for Public Comment to Inform the Design of a Consent-Based Siting Process for Nuclear Waste Facilities

Dear Mr. Griffith,

On behalf of our millions of members and supporters, we write regarding your agency's intent to solicit public input on how best to design a consent-based siting process for nuclear waste storage facilities. In order to engage the public on this process, the U.S Department of Energy (DOE) has issued a notice of invitation for public comment (IPC) and has announced its intention to host a series of public meetings.

If organized properly, public meetings can be an essential conduit for receiving feedback and engaging the public. On the other hand, if poorly executed, they can be a waste of time and resources, while presenting a false gauge of the public's interest on an issue.

We would like to offer the following recommendations for maximizing the effectiveness of community meetings for the purpose of soliciting public input:

Clarification of Purpose- It is not clear what facilities, transport routes or programs the "consent" process will enable or facilitate. Greater clarity is essential. Providing input on what "consent" is may vary depending on the type of facility (long-term or short-term as only one example). Hence you should provide **pre-meeting information to inform the public about the issue.** Siting of high level-nuclear waste requires an understanding of the process, threats and security. Basic information should be provided before the meetings and explained thoroughly at the meeting allowing for questions.

Public Comments - While the Q and A format that the DOE employed in its initial "kick-off" meeting was useful and should be preserved, public meetings must also allow for members of the public to give oral comments and ask questions to agency representatives. The comment period should be extended until all members of the public, who choose to do so, have an opportunity to speak. These comments should be part of the official record.

Accessibility - Meetings should be held in places that are conveniently located, public transit accessible, have available parking (without a prohibitive cost) and are handicap accessible. Meetings should also be held in the evening to accommodate those unable to attend day time events. Outreach should be conducted - to potentially impacted communities and other stakeholders – well prior to planning a meeting to solicit input on the date and location of meetings.

Location – Consideration of communities that currently are or are expected to be impacted by nuclear waste storage (including storage at reactor sites and defense facilities), transportation or disposal should be given when identifying locations for public outreach meetings.

Outreach – A public meeting is only successful if it is attended by the public. The DOE should devise a multifaceted outreach strategy to boost turnout and engage new constituents on this issue. The strategy should include reaching out to local associations, schools and decision-makers as well as utilizing multiple communication avenues - both on and offline - to advertise the meeting. Advertising must take into consideration literacy and language barriers.

Notice - proper and frequent notice of a public meeting should be given to communities and stakeholders. We recommend an initial notice of at least four weeks with subsequent follow-up notices up until and including the morning of the meeting.

We urge the agency to adopt these recommendations as it moves forward with planning public meetings.

Thank you for your consideration,

National:

Nuclear Information and Resource Service

Physicians for Social Responsibility

Public Citizen

Sierra Club

Regional:

Southern Alliance for Clean Energy

State:

Arizona

Don't Waste Arizona

California

SanOnofreSafety.org

Georgia

Nuclear Watch South

Illinois

Nuclear Energy Information Service

Massachusetts
Cape Downwinders Cooperative
Citizens Awareness Network
Pilgrim Watch

Michigan
Citizens for Alternatives to Chemical Contamination

New Jersey
Grandmothers, Mothers and More for Energy Safety

New York
Alliance for a Green Economy

Texas
Energia Mia
No Nuclear Waste Aqui
Sustainable Energy and Economic Development (SEED) Coalition

Utah
Uranium Watch

Vermont
Vermont Yankee Decommissioning Alliance

Wisconsin
NukeWatch

Consent Based Siting

From: Sarah Bates
Sent: Monday, February 22, 2016 9:00 PM
To: Consent Based Siting
Subject: Response to IPC

Please do put the nuclear waste dump near the scared Native American land. This country has induced enough pain of the indigenous people and if we are to take our government seriously as a reformed racist abuser, then respect of these people would go a long way in this regard.

Let's make the right, well thought out decisions. We are currently the laughing stock of the world.

Kind regards,

Sarah Bates

Sent from my iPhone

Consent Based Siting

From: Beatrice Brailsford
Sent: Monday, February 22, 2016 11:52 AM
To: Consent Based Siting
Subject: Re: Reminder - Consent-based Siting Kickoff Meeting in Washington DC January 20, 2016

How do people get on the general distribution list?

On Jan 11, 2016, at 4:39 PM, Consent Based Siting <consentbasedsiting@hq.doe.gov> wrote:

Hello,

As a reminder, a "kick-off" meeting to set the tone for our consent-based siting initiative will be held on January 20, 2016 at the Renaissance Washington, DC Downtown Hotel (999 9th St NW, Washington, DC 20001) from 1 PM-4 PM. We welcome your participation—in person or via webcast.

Please register here: [Kickoff Meeting Registration](#) and be sure to check our website for updates on Consent-based Siting <http://energy.gov/ne/consent-based-siting>.

Thank you for your interest,

-The Consent-based Siting Team

Best,

Beatrice Brailsford
Snake River Alliance

www.snakeriveralliance.org

Consent Based Siting

From: Abigail Johnson
Sent: Monday, February 22, 2016 11:39 AM
To: Consent Based Siting
Subject: Please add me to the e-mailing list for consent based siting meetings and information

Abigail Johnson
Nuclear Waste Advisor
Eureka County, NV

This is my second request to be added to an email list to receive information about upcoming meetings. I still am not receiving information. Please acknowledge receipt of this email and tell me that I am added to the list.

Thank you, Abby Johnson

Consent Based Siting

From: Jan Boudart
Sent: Saturday, February 20, 2016 10:31 AM
To: Consent Based Siting
Cc: ; David Kraft; Linda Lewison; Gail Snyder
Subject: Please send answers to questions from Jan 20, 2016 Kickoff Meeting.

Jan Boudart has shared OneDrive files with you. To view them, click the links below.

 [2016-1-20DOENukeQ&A.pages](#)

 [2016-1-20DOENukeQ&A.docx](#)

 [2016-1-20DOENukeQ&A.pdf](#)

Please find attached a list of questions from various listeners that, I think, was published at the end of the meeting.

Identical info sent in 3 formats: Pages (apple format), MSWord, and .pdf

Thank you.

Sincerely,

Jan Boudart, Nuclear Energy Information Service of Chicago

consentbasedsiting@hq.doe.gov

How will you deal with HLNW that is already in casks that are not transportable and where there is no possibility of transferring the fuel without unacceptable risk to labor into transportation casks? I'm speaking about Big Rock Point in MI and soon-to-be-unable-to-transfer at Zion just north of Chicago. The waste is in casks, would have to be transferred to transportation-acceptable casks, the fuel pools are being destroyed and there is no way to move the fuel from one cask to another.

— Don Hancock (12:40:16) Question: Why is DOE not proposing "adequately informed consent process"?

— Brennain Lloyd (12:49:09) If the infomercial that started the session off - nuclear is good, nuclear is great - is any indication of the information that will be provided to communities throughout the process, the emphasis is going to be on "willing" and much less on "informed". It will be up to communities to go outside the "process" to become informed.

— Louis Zeller (12:49:27) For decades, the transfer of liability from private hands to public entities has been the underlying factor driving nuclear waste site legislation. The assumption of this liability by the people via a government agency is a transfer of wealth from poor to rich.

— Donna Gilmore (12:51:51) When will DOE address these issues: The thin (mostly 1/2") stainless steel canisters cannot be inspected, maintained, repaired, and are subject to cracking. Once the cracks start they will continue to

grow through the canister wall in as little as 16 years according to the NRC. Canisters may already be cracking, but no one knows, since once canisters are loaded with spent nuclear fuel there is no way to inspect for cracks. There are no plans to deal with leaking canisters or to replace canisters before they leak. No pools or dry transfer facilities are in the plans. These are the only methods to replace canisters. There is no early warning monitoring system. We will only know after they leak radiation into the environment. Transporting canisters with even small cracks are not approved by NRC regs. Each canister can contain as much Cesium-137 as was released from Chernobyl. Spent nuclear fuel exposed to air can potentially explode.

— Don Hancock (12:53:17) Why is DOE trying to proceed with consolidated storage, when 30 years of experience with public and private consolidated storage sites show that there is broad, enduring opposition to such facilities? Why not recognize the "non-consent"?

— Donna Gilmore (12:54:32) No community should consent until states have the legal authority to set higher standards than the federal government for nuclear waste storage and transport, and for radiological standards.

— Donna Gilmore (12:56:24) Please review and respond to this document: "Urgent nuclear waste canister problems, SanOnofreSafety.org, Dec 13, 2015" <https://sanonofresafety.files.wordpress.com/2012/05/urgentnuclearwastecanisterproblems.pdf>

— Karen Hadden (13:04:02) Karen Hadden There is broad opposition to high-level radioactive waste storage in the West Texas / New Mexico region, despite the fact that a few public officials feel free

to announce consent of their communities. Real democracy is not in place in this process. All members of a community should be allowed to vote if true consent is to be the standard. People in other counties should have a say too, especially those along transport routes since they're at risk too. In fact, everyone in the state is at risk financially and at risk in terms of health and safety if there is an accident or terrorist incident. What is being portrayed by industry as consent right now in communities such as Andrews, Texas, Culberson County, Texas and in New Mexico is a joke.

— Katie Tubb (13:12:19) What is your take on Finland's experience where the nuclear industry is responsible for siting and paying for nuclear waste management?

— Brennain Lloyd (13:12:36) Canadian process is very flawed; yes, down to nine municipalities, but in the six northern municipalities the 18 associated areas being studied are OUTSIDE the municipalities that "expressed interest". This directly conflicts with the NWMO (proponent) program and "principles". It will not serve the U.S. process well to base it on the flawed Canadian process, especially when that reliance is based on only a very superficial understanding of the process. See www.nuclearwaste.ca for Canadian links.

— Lisa Janairo (13:12:47) To build trust, this consent-based siting effort will require DOE to engage with stakeholders in a more open and transparent manner than has traditionally been the case. Please describe how DOE will do this -- specifically, what actions will DOE implement to engage and communicate with stakeholders in a way that is open, transparent, and, therefore, more successful at building trust and confidence?

— Debra Severson (13:17:18) Which states have currently expressed interest in hosting a site? In particular...has WI? engage and communicate with stakeholders in a way that is open, transparent, and, therefore, more successful at building trust and confidence?

— Tom Clements (13:12:07) Here in South Carolina we began the "consent" process in 2013. Part of that process here involves the vote against interim spent fuel storage by the Savannah River Site Citizens Advisory Board, a federal advisory panel on SRS clean-up. In 2013, 2014 and 2015, the CAB has not given consent to interim storage. See <http://www.srs.gov/general/outreach/srs-cab/library/positions/>

— Mary Olson (13:17:19) HOW can InterimStoragePositionPaper.pdf anyone "consent" to something that does not have a standard, is not completely characterized, does not have a TSP type evaluation (the last does not happen under current regs BEFORE a license application. How is your question even possible?

— Mary Olson (13:18:23) Second: a waste SYSTEM is not integrated unless it includes waste generation. How is DOE going to apply this to any waste generation sites?

— Connie Simkins (13:19:12) Please what is the time table to move from this consent based siting public input process forward to where any waste is actually moved, even to an interim site, and on to the permanent repository site

.Marni Magda Does HR 3643 if passed have enough money provided to create Interim storage for our closed nuclear plants?

— Maureen Headington (13:24:35) If you are truly seeking consent, DOE needs to send notice to our local governments,

ie villages, towns, cities, and local newspapers and not rely on grassroot and environmental organizations to inform the public about your work. Anything less would not constitute "consent based".

Ray Lutz (13:25:29) Are there any draft documents that define the requirements for interim storage sites and 2) for the consent process being contemplated?

— Louis Zeller (13:27:47) Working in communities in the Southeast, we are well aware of radioactive waste initiatives going to potential waste dump communities. The Blue Ridge Environmental Defense League was founded because of one such program. They invariably come with promises of jobs and economic development, promises which short-circuit debate and sway elected officials. How would you prevent this undermining of the process?

— Tom Clements (13:29:30)
QUESTION: During the failed GNEP process at the end of the 2nd term of Pres. Georg W Bush private entities proposed DOE sites for reprocessing faciklities. This go-round, how can a private or non-DOE entity possibly propose a DOE site which consists of land owned by the wider public? I anticipate that this will not be allowed, correct?

— Brennain Lloyd (13:32:26) The timeline in the Canadian process is "flexible". They have an end date for referencing in reactor re-licensing etc, but it is - like so much of the NWMO scheme - for "reference" purposes. Not likely to happen.

— Kenneth S Redus (13:34:20)
QUESTION: Who is the decision-maker for the process itself and its integration with system design and governance?

— patrick dostie (13:36:17) Will DOE factor in what the Bipartisan Policy Center's findings were from their regional meetings?

— Phil klevorick (13:36:36) Has the DOE secured funding for this multi-year process of defining the CBS (consent-based storage) process and what time line do you estimate to establish the defined process and ultimately going out to commence searching for CBS locations and 'volunteer's?

Brennain Lloyd (13:38:32) You are encouraging one-on-one meetings, etc; how will these be documented? How will you maintain transparency while engaging in a series of private conversations?

— Brennain Lloyd (13:39:10) And how will those who do meet with you know how their input has been documented?

— Louis Zeller (13:43:34) QUESTION: If, nuclear waste is safe and secure where it is now, as stated by Dr. Orr, would the consent-based process accept permanent reactor-site disposition?

— Jan Boudart (13:45:16) How will you deal with HLNW that is already in casks that are not transportable and where there is no possibility of transferring the fuel without unacceptable risk to labor? I'm referring to Big Rock Point, MI and soon-to-be-unable-to-transfer at Zion IL just north of Chicago. The waste is in casks, would have to be transferred to transportation-acceptable casks, and the fuel pools are being destroyed and there is no way to move the fuel from one cask to another. The fuel pools MUST NOT be destroyed!

— Gilmore (13:45:27) Communities need to know aging management plan prior to consenting. Existing systems are not designed for aging management, but John just said he plans to use these.

— Gilmore (13:53:23) Will there be any public meeting on the technical issues related to interim storage? Who should we contact on those issues? This is needed before consent.

— Ray Lutz (13:57:00) I did not get an answer to any of my questions. Please

answer if there are draft documents on the consent process and on requirements for sites.

Rebecca Casper (13:57:59) could we ask that MR Kotek include a list of his key staffers in written form? (along with their areas of expertise?)

The comment I, Jan Boudart, didn't send.

Belief or not -- nuclear power is not carbon-free and creates unspeakable filth that is released into the atmosphere, soil and water.

Katie Tubb (14:04:44) If I may clarify my question from 14:12:19. What is your take on Finland's experience where the nuclear industry is responsible for siting and paying for nuclear waste management - in the end, this arrangement led to a successful consent-based process and resolution. Thank you.

Consent Based Siting

From: Jennifer Stromsten
Sent: Friday, February 19, 2016 10:57 AM
To: Consent Based Siting
Subject: Response to IPC
Attachments: DOE Letter INHC Feb 2016.pdf

Please find attached our letter of response to the Notice for Invitation for Public Comment regarding Consent Based Siting of nuclear waste.

Jennifer Stromsten
Program Director
Institute for Nuclear Host Communities



*An Affiliate of the
AEHS Foundation*

February 19, 2016

U.S. Department of Energy
Office of Nuclear Energy - Response to IPC
1000 Independence Ave SW
Washington, DC 20585

To Whom It May Concern:

We were delighted to see the December 21, 2015 notice that Secretary Moniz has launched a spent nuclear fuel consent-based siting effort with the public.

The Institute for Nuclear Host Communities was formed in 2014 around the closure of the Vermont Yankee Nuclear Power Plant. We seek to improve socioeconomic outcomes for nuclear host communities after plant closure. We focus on encouraging communities to understand the broad range of socioeconomic benefits, and using this information to plan for losses of those benefits – jobs, spending, tax revenue, social capital. The surest strategies involve focusing on areas they can control, which in most cases will not include timely repurposing of the plant site. Nonetheless, the presence of spent fuel is both a distraction, and a long-term impediment, to communities' efforts at moving forward after their plant ceases to be productive. Establishing clarity around the presence of spent fuel and compensation for that arrangement would be extremely useful to the next 60 communities that need to plan for their plant's retirement, even if solutions are a long way off.

Thank you for this opportunity to provide input to help the DOE move forward with consent-based siting. We have organized our letter into two sections

- 1. "Responses to DOE Questions" section**
- 2. Six recommendations based on our work with host communities**

For examples of the ways in which host communities are impacted by plant closure please visit our web site where you can find links to research on Yankee Rowe, Vermont Yankee, and Pilgrim Power Station. Our organization's board and staff are available to help, insofar as it substantially addresses a problem faced by all nuclear host communities. We provide suggestions below of national organizations that can be helpful going forward and strongly encourage the DOE to avail itself of the expertise and relationships these organizations can bring to the table, particularly at the kickoff event in DC.

RESPONSES to DOE QUESTIONS

- How can the Department ensure that the process for selecting a site is fair?**

The INHC position is that for any process developed to ensure site selection to be fair it must be retroactively applied to the dozens of communities are currently hosting spent fuel. These locales have not benefited from such a process. Nuclear power plant host communities became unwitting hosts to spent fuel decades ago at a time when there was a reasonable expectation that the spent fuel would be removed from the location in a timely fashion. As the 'deal' has changed over time, substantial resources have been devoted to developing physical capacity

for on-site storage (ISFSIs) and to compensating owners and operators for the care and feeding of spent fuel and the structures needed to accommodate them. In fact, many members of communities are completely unaware that (a) the fuel continues to reside at the site, and (b) this situation has no remedy in the near term.

The closure of a nuclear power plant highlights a poignant gap in these makeshift accommodations, one that critically affects host communities' ability to plan and move forward, particularly from an economic standpoint. Attempts to tax the spent fuel and their storage facility, as the means to derive value from an open-ended, non-consensual commitment to host the spent fuel, have generally failed. The outcome is that communities that have lost the economic benefit of an operating nuclear facility – jobs, spending, and tax revenue – are left with a long-term liability but are entirely left of a framework of compensation.

- **What models and experience should the Department use in designing the process?**

The Consensus Building Institute has been working on this for several years and should be actively engaged to design a process that produces outcomes that are effective both from a national standpoint, but also processes and outcomes that allow nuclear host communities to improve their socioeconomic outcomes and control over options.

- **Who should be involved in the process for selecting a site, and what should be their role?**

From the perspective of nuclear host communities who have been made sites to spent fuel without consent thus far, any extension of existing arrangements or changes to siting of spent fuel should be required to conform with land use policy as enabled by state legislation, in a manner that is predictable and consistent. These siting processes would then obviously vary by municipality, county and state.

- **What information and resources do you think necessary to facilitate your participation?**

In terms of environmental outcomes, the Conservation Law Foundation has a long history of engagement with nuclear power plant closure, decommissioning, cleanup, and advocacy for strong outcomes at a community level. A number of other environmental and advocacy groups have developed the sound knowledge and expertise necessary to articulate a framework that would ensure positive environmental outcomes for communities.

Consideration of the socioeconomic outcomes has been largely missing from the conversation around nuclear power plant closure, and long-term ramifications like the presence of spent fuel. The participation of communities must be facilitated by entities that have a broad, long-term commitment to the interests and needs represented by local and regional governance. Our organization, the Institute for Nuclear Host Communities, conducts research, puts on conferences and assists individual communities, with the goal of improving socioeconomic outcomes.

However, this new conversation that the DOE has launched should be facilitated by organizations suited to leverage the national participation of all communities currently affected by the presence of spent fuel, which again has not resulted from any process to produce 'consent' or conformity with environmental practices applied to other instances. To that end we recommend engaging membership organizations that serve these communities directly: The National Association of Development Organizations (NADO), National Association of Counties (NACo), and the International Economic Development Council (IEDC).

Currently the conversation is hosted, facilitated and populated by industry-based groups like NEI or led by service-providers like the dry-cask contractors. These organizations are tremendously important resources in terms of technical detail, breadth and depth of knowledge of the energy sector and nuclear industry.

- **What else should be considered?**

There is a tremendous amount of perspective, expertise and insight to be found within (a) areas that have been hosting spent fuel through a plant closure and decommissioning (local, regional and state officials and stakeholders), and among (b) nuclear industry workforce particularly those who have been engaged with Citizen Advisory Panels and the public.

It's also important to consider that conversations around spent fuel tend to be (a) overly technical yet fail to adequately convey fundamentals critical to local concerns (for example, fuel is staying and it can't be taxed), and (b) divisive or dominated by special interests – anti-nuclear activists and nuclear industry insiders. This polarized framework, we believe, inhibits nuanced discussion and understanding of the exact nature of problems engendered by the presence of spent fuel, particularly as it plays out over decades and in ways specific to each locale.

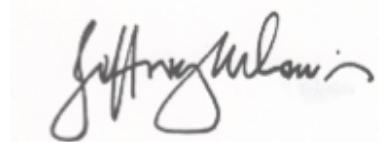
Finally, the DOE should consider revising its “oldest fuel first” policy for the acceptance of spent nuclear fuel to allow for the prioritization of fuel from commercial reactor sites that have been permanently shut down. This would enable communities that have lost the socioeconomic benefits of an operational reactor to more quickly return the entire site to unrestricted use, and remove a major redevelopment obstacle from the landscape.

SIX RECOMMENDATIONS from the INSTITUTE FOR HOST COMMUNITIES

1. **Please include the current hosts of spent fuel**, communities, which did not give consent, indeed had no opportunity to seek compensation or “recoverables” when the deal between plant owners and the federal government changed from fuel leaving, to fuel staying on site.
2. **Include all of the communities that currently host spent fuel** – that needs to be the minimum standard for a satisfactory public engagement process. The typical perfunctory, opaque, insider ‘public engagement’ in the style of the NRC will add insult to injury.
3. **The downsides for communities have to be understood**, not just ramifications for the nation’s energy system and sector. Locally the spent fuel is a huge source of confusion and anxiety. It’s handling and storage and surveillance consumes local and state resources. Long term, the presence of the fuel becomes a de facto taking of the property, rendering most of these sites undesirable and impeding comprehensive repurposing, save for recreational environmental purposes.
4. **Economic reuse of sites with spent fuel present is highly unlikely. The DOE process is an opportunity to prioritize outcomes that are both environmentally, and economically excellent for host communities.**
5. **The DOE can create clarity with a consistent, predictable framework for the valuation and relocation of spent fuel.** Many communities are under the misapprehension that they will tax the fuel long term to offset revenue losses when plants close. Without the standing or wherewithal to handle the ongoing presence of spent fuel in the way that owners like Yankee, Dominion and Entergy have (ie litigation to gain recoverables) communities struggle to adapt, attempting solutions that do not hold up against legal challenge (taxing the spent fuel).
6. **We strongly urge that NADO, a trusted resource for communities with expertise in local and regional economic concerns, be empowered and funded to help accomplish the goals above and to ensure community concerns are heard and addressed throughout this new DOE process.**

Again, thank you to those who have worked within the DOE to revive the consent-based siting process. We are teaching for the second time a course on nuclear plant closures at the UMass Amherst Honors College, in collaboration with Dr. John Mullin who first looked at the community impacts of nuclear plant closure with a study he did on Rowe for Yankee Atomic in the late 90’s, and who co-founded our group with Jeff Lewis. Our syllabus includes the Blue Ribbon Commission report. Having the DOE consent-based process unfolding in real time brings to life what is otherwise weighty material. Discussing these issues with young adults is also a keen reminder of how a problem deferred for our generation is a problem inherited for theirs.

Sincerely,



Jeffrey Lewis
Executive Director



Jen Stromsten
Program Director



Jonathan Cooper
Research Director

Consent Based Siting

From: Concerned Citizens for Nuclear Safety
Sent: Thursday, February 18, 2016 6:33 PM
To: Consent Based Siting
Subject: Please include us on the email list. Thank you.

--
Concerned Citizens for Nuclear Safety (CCNS)

www.nuclearactive.org

Consent Based Siting

From: Carl Spector
Sent: Thursday, February 18, 2016 2:06 PM
To: Consent Based Siting
Subject: old task force

Dear DOE:

Chances are that you all already have this, but just in case...

In 1979, President Carter appointed a task force led by Gov. Dick Riley of South Carolina with 17 other members including governors, state legislators, mayors, and four federal officials. Its name was something like the Presidential Planning Council on Radioactive Waste Management. It submitted its report in 1981. A large part of the council's work focused on developing a fair process for siting decisions. The presence of 7 or 8 governors on the council and their regular participation in meetings was significant. If you have not already reviewed the report, it would be worth the effort of taking a look.

I was the assistant to EPA's Director of Radiation Programs at the time and participated in all the meetings.

Sincerely,
Carl Spector
Commissioner
Environment Department
City of Boston

Consent Based Siting

From: Alexander Friedman
Sent: Monday, February 15, 2016 5:59 AM
To: Consent Based Siting
Subject: Molten Salt Reactors

Hello,

I'm an engineering student and a science buff from St. Louis, Missouri. Since I was a kid, I've read, with fascination, everything I could about the nuclear program and its development since the Manhattan Project, or even the letter that Albert Einstein wrote to President Roosevelt in 1939. I'm not a nuclear engineer, just a curious citizen. I recognize the unavoidable need for electrical energy in the world and, like most people, have a suspicion that our current methods of producing it might not work forever.

Personally, I love the idea of solar power as it doesn't take from the ecosystem, and utilizes the one extra-terrestrial gift we have, the sun. But, solar's not ready yet. I hope it will get to where it needs to be, but it's not today and it's not the subject of this letter.

In the meantime, I'm not afraid of nuclear reactors, but I am afraid of their waste. The accumulation is just staggering, right? A long time ago, I think America voted to avoid recycling our fuel because no one wanted it running through their towns on trains. That would've been cool and would've worked well with the reactor design intended.

We landed on water reactors, right? We use refined uranium, a costly and rare metal. Some people say we did this because the infrastructure to use uranium was already in place since we made the first reactors for the Navy. The efficiency is pretty weak, hence our many billions spent on fusion research.

I repeat: I'm a science buff; I worship at the temple of the old-school scientists and engineers who took us from the Earth to the moon in 8 measly years. John F. Kennedy had no clue that we were capable of actually traveling to the moon. He made his decision to announce the space race after talking to one Mercury astronaut while flying aboard Air Force One. The coke-eyed nerds who made it happen were doing the impossible.

Something else those guys did happened at Oak Ridge Labs in the 1960s. The Molten-Salt Reactor sounds neat, right? Crazy hot, low-pressure molten radioactive salt scalding the heck out of heat-exchange pipes to provide steam to a turbine. That sounds terrifying, but also totally awesome, right?

It sounds like it totally works! (On a research scale) It did work! For 4 years it operated. The nerds said it worked. And, I guess when the experiment was over, it was just over. No one did much with it. We already had water reactors...so...why bother? Some people say it was because the reactor did not yield weapons products, but I wasn't alive back then so I have no idea.

I feel like American energy production is like owning an old, beat-up car. It's a pain to replace the old parts...and we're debating whether it wouldn't just be cheaper to buy a whole new car, and then we impulsively buy a new car anyway because we don't want to think about it anymore. Then we send a perfectly good hunk of metal to the junkyard that could've been fine with a better maintenance record. Personally, I own a 1977 El Camino and a 1999 Ford Ranger, and I will admit there is no "YAWP!" joy that I can scream at people when my well-maintained whips continue to operate because I pay attention to them. However, I do enjoy a shrug and probably wear a chip on my shoulder whenever I hear one of my friends has trashed a car or hear people whine about how they've gotta get a new car because of blah-blah-blah "ball-joints," "that sounds like work," "rusty such and such"..... treating their car like toilet paper.

I am writing because I would like to know why the DOE is not being more proactive in getting a Molten Salt Reactor running again. If they are, why would they make it in China? Why wouldn't Thorium, a common byproduct of rare metal mining, be quenching to the energy palate? Couldn't some of our existing uranium stockpiles be used up in a Thorium reactor? There's tons of Thorium around! Let's use it!

Also, if there's any way I can support the development of this technology in the United States, please let me know.

Thanks,

Alex

Consent Based Siting

From: Generette, Lloyd
Sent: Friday, February 12, 2016 4:10 PM
To: Consent Based Siting
Cc: McConney, Ramona
Subject: April Public Meeting in Atlanta Georgia

Please place me on your mailing list for this public meeting.

Thanks
Lloyd Generette
Health Physicist
USEPA Region 4
Atlanta GA

Consent Based Siting

From: Rose Deck
Sent: Friday, February 12, 2016 12:35 PM
To: Consent Based Siting
Subject: Crystalline Rock/Nuclear Waste Disposal Research in North Dakota

In January, residents of Pierce County, North Dakota learned the DOE had awarded funds to researchers including the Energy and Environmental Research Center (EERC) at the University of North Dakota, Grand Forks, to conduct deep borehole drilling research into the crystalline rock in North Dakota. According to the EERC, they have chosen a site in Pierce County. However the residents are very concerned that the proposed hole being drilled for research is the precursor to nuclear waste storage in North Dakota. Representatives of the EERC have indicated it is for research only however, residents are very skeptical due to the lack of information available on the project. What is the process to obtain a copy of the documents awarding the federal funds to the EERC and its partners to conduct this research?

v/r
Rose M. Deck

Consent Based Siting

From: Ryan McKinnon
Sent: Friday, February 12, 2016 9:42 AM
To: 'Stewart, William C.'
Cc: Consent Based Siting
Subject: RE: Interesting - another try for nukes

A few weeks ago, I spent a few hours studying the Rocky Flats nuclear contamination accidents of the 1950's.

I was impressed that the incidences of increased neoplasia was so low. Indeed, not very dangerous. It seems that the healthcare worries of nuclear contamination are larger than the actual problem. I was also interested in the biology of contamination. Inhaled nuclear material stays in the lungs and causes more of a biological burden, whereas ingested materials are passed through with negligible radioactive burden.

The public has a distorted perception of the dangers of nuclear contamination of the environment.

The idea of sending it to deep earth might be overkill. Having the material where it is convenient, accounted for, and contained seems a better solution.

As nuclear technology moves forward, technology for recycling spent fuel may become attractive. Having it close at hand would be convenient.

The public is quick to want it in remote locations. This is due to inaccurate fear. I believe it should be stored in many facilities across the country. Dispersed, not concentrated, In cities where it can be monitored and accounted for.

From: Stewart, William C.
Sent: Friday, February 12, 2016 7:17 AM
To: Ryan McKinnon
Subject: Interesting - another try for nukes

Consent Based Siting

From: Allen Taylor
Sent: Wednesday, February 10, 2016 10:46 AM
To: Consent Based Siting
Subject: Request for Interview

Hi,

I'm a journalist working on a story for EnergyBiz.com regarding the storing and disposal of spent nuclear fuel. I'd like to speak to someone at the DOE about this process for my story. Is it possible to arrange an interview for some time this week?

Thanks.

--
Allen Taylor
[Taylored Content](#)

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Consent Based Siting

From: David Atwater
Sent: Tuesday, February 09, 2016 1:04 PM
To: Consent Based Siting
Subject: Nuclear Waste Storage and Recyling

All,

With some education received in Geology, Business and Nuclear Engineering (my son is a UCB NucE), and as part of a small group that developed one of the most successful (\$15 Billion) environmental programs in America....why don't we recycle Nuclear Waste first reducing total tonnage dramatically..... say 50 to 75%. Then treat the waste to reduce its half-life while developing new technologies to further treat and reduce that volume???

Look at the French model.....Even they have figured it out!!! We are not a third world Country....WE CAN DO THIS!

THEN PUT THE TINY REMAINING AMOUNT IN YUCCA MOUNTAIN.

We need to centralize waste treatment and storage.....IT MAKES SENSE.... From a Security perspective, from a safety perspective, from a resource conservation perspective.....**the tragedy is that doing the right thing makes no sense politically...**

I hope this actually gets read...and I understand that free advice is worth exactly what you pay for it,

David Atwater

Consent Based Siting

From: Ian Turnbull
Sent: Tuesday, February 09, 2016 6:20 AM
To: Consent Based Siting
Subject: Nuclear Waste and the holographic nature of our Universe.

US Department of Energy,

Dear Secretary Franklin Orr,

Thank you for the 'paper' on your web site, outlining the ideas and intentions that you are seeking to implement, with regard to finding and creating a "long-term solution for Nuclear Waste", and inviting comment.

I would like you to know that I share your concern and interest in this very subject. But I have come over the years to believe that we are still not looking into the Atomic World with the universal curiosity that the whole nuclear subject deserves. I have developed a web site <nucleargodeeper.com> which elaborates on my experiences with radiation (while working at Dounreay, the nuclear reactor here in northern Scotland), and my thoughts as to the universal nature of the energy in the atoms, and the remarkably familiar nature of the fission process (easier to see if you are acquainted with Carl Jung's insights).

In summary, I see how our work with nuclear power highlights the "energetic symmetry" that is in the Atomic World and equally in our human nature. I think it essential that we widen our perception and find the way to recognise the "holographic nature" of our Universe. This universal principle, in my experience, provides the intellectual framework that then encourages us to see the potential we humans, we Humanity, have - to create some kind of remedial collective spiritual process that can treat the phenomena of radiation/radioactivity.

You will need to come to this larger deeper view on your own terms, because it goes against the grain of conventional knowledge. It is not that our physics is wrong, so much as it is incomplete. There is a metaphysics of the atom waiting to ambush us. I hope you will hear that I am flagging this ambush.

With good wishes.

Ian Turnbull, Findhorn, Scotland.

Consent Based Siting

From: Stephanie Steinke
Sent: Tuesday, February 09, 2016 12:21 AM
To: Consent Based Siting
Subject: Deep Borehole Test Site

I would like to request that the DOE consider employing this consent based siting strategy for the test site, rather than just for a true waste site. Perhaps the DOE's heart is not in it, or they just want to push a project through because they believe it is so important, but in the process they have managed to alienate a community by ignoring, and then denying any responsibility by saying that the subcontractor picked it. This approach is really asinine. Local communities do not give consent through companies and universities volunteering their land for them, and should not be expected to.

And so, I would like to request that a representative of the DOE, as well as their chosen subcontractor Batelle come to Rugby, ND to begin a consent based siting discussion for this test hole project. Something which should have been done before the contract was awarded. Instead, UND/EERC and Batelle appeared out of nowhere, and requested permission to drill state land and begin in under 9 months time. If this is a test of the new consent based strategy, it failed utterly and completely.

I would like to invite you all to try again. Please consider sending a representative to talk to the community and to explain whether or not the testing site would become a real dumping waste site. Would eminent domain be a possible action in the future? Would the new permitting process for a nuclear waste site, after the test, proceed with the same success and transparency as the consent based siting process that this test bore hole did?

--
Stephanie S. Steinke

Consent Based Siting

From: Maureen K. Headington
Sent: Monday, February 08, 2016 7:32 PM
To: Consent Based Siting
Subject: Consent Based Siting - Hearing Schedule

Please provide details for the Chicago Hearing in March on consent-based siting.

Date, Time, & Location

Thank you.

Maureen K. Headington

Consent Based Siting

From: Vince
Sent: Monday, February 08, 2016 7:12 PM
To: Consent Based Siting
Subject: Consent Based Siting

When is the Chicago hearing on consent-based siting?

Sent from my iPhone
Vince Headington

Consent Based Siting

From: KarenD Hadden
Sent: Friday, February 05, 2016 6:28 PM
To: Consent Based Siting
Subject: Re: Questions regarding consent hearings and process

Thank you. Was the meeting for Aystin already held or is it still coming?

Looking forward to your reply.

Thank you, Karen Hadden

Sent from my iPhone

On Feb 5, 2016, at 9:47 AM, Consent Based Siting <consentbasedsiting@hq.doe.gov> wrote:

Hello Karen,

We've added you to the email list. As mentioned in the January kickoff meeting, the first two locations are Chicago in March, and Atlanta in April. We are working on details but will post updates on our website at energy.gov/consentbasedsiting

Thanks for your interest,

The Consent-based Siting Team

From: KarenD Hadden
Sent: Wednesday, February 03, 2016 5:46 PM
To: Consent Based Siting
Subject: Questions regarding consent hearings and process

Dear Andrew Griffith and Fuel Cell Technologies Folks,

I would like more information about all hearings scheduled so far regarding consent based siting and criteria, including the meeting discussed for Austin (in February?) and any tentative meetings.

Also, is there a way to get on an email list regarding this issue?

Thank you,

Karen Hadden

I would appreciate a call as well as an email if possible. Many thanks.

Consent Based Siting

From: KarenD Hadden
Sent: Wednesday, February 03, 2016 5:46 PM
To: Consent Based Siting
Subject: Questions regarding consent hearings and process

Dear Andrew Griffith and Fuel Cell Technologies Folks,

I would like more information about all hearings scheduled so far regarding consent based siting and criteria, including the meeting discussed for Austin (in February?) and any tentative meetings.

Also, is there a way to get on an email list regarding this issue?

Thank you,

Karen Hadden

I would appreciate a call as well as an email if possible. Many thanks.

Consent Based Siting

From: Tariq Noaman
Sent: Tuesday, January 26, 2016 9:37 AM
To: Jackson, Bartlett
Cc: Consent Based Siting
Subject: Regarding last week's CBS kickoff meeting (01/20)

Good Morning,

My name is Tariq Noaman and I'm contacting you regarding last week's consent-based siting meeting at the Renaissance Washington Hotel. I arrived 15 minutes late due to metro transit issues and completely missed Dr. Orr's keynote speech at the beginning. Can you direct me either to a transcript or a summary of his remarks?

Best,

Tariq Noaman
Researcher

Federation of Electric Power Companies of Japan

Consent Based Siting

From: Marni Magda
Sent: Monday, January 25, 2016 12:04 PM
To: Consent Based Siting
Cc: Marni Magda
Subject: Response to IPC after Jan 20 online DOE meeting An Integrated Waste Management System..

Attachments: Jan20 2016 DOE An Integrated Waste Management System and Consent-Based Approach to Siting.docx

Dear John Kotec, William Boyle, and Andrew Griffith,

Thank you for your honest, informative panel discussion of this nation's issues for storing spent nuclear fuel and the process for determining how to move forward for a Consent-based Approach to siting. Please find attached my four page suggestions and concerns based upon your ideas and answers to the many questions. Does this get my comments on the public record or is there some other place for me to send this?

Thank you for your time and hope for progress in a safe Irradiated Fuel Management Plan for the United States. I look forward to your answers and any email contact I should have for more information.

Best Regards,
Marni Magda

Jan.20, 2016 online DOE meeting

"An Integrated Waste Management System and a Consent-Based Approach to Siting

For the Public Record Submitted by Marni Magda

Laguna Beach, CA

As a listener on the Webcast I request for the next meeting: The Visual for us on the webcast needs to be improved if listeners are to be an effective part of the meeting. We couldn't see the faces of the speakers as they spoke. We couldn't tell which person was speaking until the panel members started identifying themselves. Easy to read name plates need to be part of the webcast visual. When moved to full screen, the images were too blurry to see. I hope a list of questions raised by the online participants will be given to all who listened in as well as the panel members.

What went well was the Moderator's response to our online chat questions about logistics, but our questions about the content of the meeting were not answered. I hope attendees and who they represent will be part of the follow up available to all of us. How do we get the follow up information about the meeting? The Moderator in the future could print at the end of the meeting how to reach the Public Comment in the Federal Register and the email alternative for those of us listening in who still find the process for online public comments time consuming and often confusing. How and where to get the meeting transcripts? All of this might seem redundant, but it would be very helpful to also make the information part of the agenda that we can print out before the meeting. NWTRB with its Jan.6 press release about it's meeting to be held on Feb. 17th in Knoxville, TN shows how it can be done, even for the "online handicapped" like me.

Comments for the Record and Requests. This kickoff meeting of the DOE unfortunately made it plain that the DOE is in no hurry to come up with a consent-based siting plan for commercial nuclear waste. I get worried when John Kotek says there will be a year of meetings all over the country to see what the general public thinks is necessary to get a Consent-Based Approach to Siting. There is a need for those of us living next to stranded nuclear waste to solve the Interim storage problem now. I have been following these issues at every NRC and Southern California Edison meeting held in Southern California since Fukushima, nearly 5 years, and the complex issues of Dry Transfers Systems and Management of Spent Nuclear Fuel are just beginning to be addressed. The average person on the street has no idea of the issues. John Kotek visited San Onofre June 7, 2015. He has witnessed SCE's bluff and the bluff where the ISFSI is to be built and the canisters buried. Even that dangerous plan changed without public transparency after the March 3, 2015 NRC meeting of experts on 'Degradation of Concrete in Spent Nuclear Fuel Dry Storage Systems.' Unlike the CEP meeting discussion, Holtec will now only "half" bury the 80 new Holtec Canisters on the bluff 200 feet from the ocean because of the up swell of ground water we can expect with heavy rains and the degradation of the cement that may (MAY ?) cause. This demonstrates that leaving the stranded fuel on site creates an unacceptable risk. We need an Interim site now.

I have watched the NRC have its taxpayer financed country wide meetings where the NRC had 20 or more paid employees attend, and the public shows up, but our protests go nowhere. NUREG 2157 published finally in Aug 2013 is ghastly evidence of total NRC failure to regulate the nuclear

industry. They have spent millions of dollars trying to say that radiation from nuclear plants has no generic harmful effect on the environment, and it is acceptable to abandon the spent nuclear fuel on sites all over the country for 300 years. The public is incredulous.

Who made up the term ALARA? It's an acronym joke, sounding lyrical as you say it, like a butterfly in a blue sky, but is instead permission by the NRC to allow the nuclear industry to dump radiation in our Pacific ocean whenever it is not "reasonably achievable" to prevent it. Right now, two billion gallons of ocean are sucked into the old Diablo reactors each day to cool the High Burnup Fuel and dumped back too hot into the ocean to the tune of ALARA. Built on an earthquake fault, near the newly recognized Cascadia fault in unprecedented global warming with old spent fuel pools and weak canisters, the aging plant is an impending disaster. The Spent Nuclear Fuel in canisters hidden on the coast near San Luis Obispo are an inferior early design. The Holtec CEO Dr. Kris Singh admitted this at a SCE CEP meeting on Oct 14, 2014 where he explained Holtec's old design canister is 304 alloy and inferior to the new canisters he plans for San Onofre, 316 L grade.

Those of us who have been following this the longest have little faith in the NRC. They have just allowed SCE to reduce security at San Onofre when we were never protected from any attack greater than five armed terrorist on the ground. The NRC pretends we don't have a terrorist threat. San Onofre and all decommissioned plants need offsite emergency services as long the spent nuclear fuel remains there. This is a request for a policy change that does not reduce security systems until all spent fuel is removed from San Onofre or any decommissioning nuclear site. The DOE must work to get the fuel moved from San Onofre in the next 10 years. We may not even have that long. We have watched world-wide that human error, Mother Nature and terrorist do not follow the NRC GEIS handbook.

John Kotek (I think it was he) spoke honestly to the audience question, "Why do we need to move the fuel at all . It is too dangerous." He answered, "Nuclear waste needs to be isolated from people and the environment." When someone in the audience mentioned the plight of places burying the waste near lakes and rivers, he stated the decommissioned sites need priority to be moved to interim storage by the DOE as stranded fuel because of less protection once the spent fuel pools and current security systems are gone. I have looked at the current DOE queues that leave San Onofre very late in the fuel movement process, and I am relieved to see a push to move this fuel first. Because of public comments SCE will now leave the rail tracks and roads needed to get the spent fuel to the DOE at its perimeter. We request that spent fuel pools not be removed either until all nuclear spent fuel is gone.

What information was on the boards after your panel stopped speaking? Is it the usual NRC flow charts, or was there information to inform the public about the unhappy realities of the back end of nuclear waste storage?

It was reassuring that consent may have some limits. One panel member spoke of transportation where routes must be approved, but later security kicks in, and it would be wrong to post the times and places nuclear fuel would be traveling. I couldn't agree more. I have NUREG 0725 showing safe movement of nuclear fuel from 1979 to 2007. The public had no idea spent fuel was on our highways transported from San Onofre to Illinois. Transport corridors from San Onofre to New Mexico and or West Texas must

be immediately evaluated for the ability to safely support the transport of a 370 ton rail car with its escort car. And funding for upgrades must begin now. It should be a national security budget such a Homeland Security rather than private enterprise that will get the work done most efficiently. Who will take the lead to get the railroad upgrades funded and accomplished?

When asked about current Interim storage siting procedures, one panel member said there has been a criterion by law since the Nuclear Waste Act of 1982. It has been used recently to evaluate 21 or 22 interested parties who wished to license Interim storage facilities and has reduced the potential sites to 8 or 9. I have not had time to look up The Nuclear Waste Act of 1982 Section 112 said to spell out the criterion. 10 recommendations in part 10 CFR 960. Is it possible to send that in email to all of us who attended and were listening in? Think of the time it would save and the information we could give to other interested parties in our area who want to help move Interim Storage Consent-based siting ahead as fast as possible.

So far the government has not done very well with leasing storage facilities. We certainly hope with the Blue Ribbon Commission Report and a look at our past mistakes and those of other nations as you on the panel said you are doing, that we might already have some clear guidelines to present to the public, not just open ended uninformed emotional opinions.

Yucca in 1987 was not consent based. Imagine if President Regan had picked California using eminent domain for his national final deposit site? Consent of the state and community and radius of 50 miles is essential. But the contract must hold a community to its commitment once signed for longer than the industry can possibly need to find a final solution. A memo of understanding (MOU)and the eventual contract for any consent-based Interim site must be for 100 years. Furthermore, whether a new safe reprocessing system is invented by the industry, or a method of final deposit is established by the DOE, there must be a constant DOE oversight of the nuclear industry to spend time and money to invent the necessary Dry Transfer Storage elements necessary to keep Spent Nuclear Fuel safely stored. It was good to hear the public doesn't get to change its mind with each administration or whim. However, safe guards for change must be a part of the contract as well since this is a deadly product that has only existed 70 years and the 5/8" stainless steel canisters have only been used since 1989 with a fuel that will be deadly for perhaps over a million years. I don't know the length of the WIPP consent agreement but since the 2014 accident and closure it is a moot point. There is no going back to a different use for WIPP for at least 10,000 years. Idaho national Laboratory that someone mentioned as a type of consent in fact proves the dangers of DOE delay to accept nuclear waste as this Idaho consent ends with a huge daily fine if the Navy doesn't get the fuel out of the state by a certain date that I have forgotten something like 2035? \$50,000 a day of our taxpayers money? (See BRC report) SCE Skull Valley in Utah was a 20 year lease contracted in 2006. What were they thinking? Build it for 20 years and then turn it back into a desert with the fuel all gone? Someone must have already written an intelligent consent based plan. Why are we all reinventing the wheel? Let us start now with your DOE best shot at what it should be. Not a year of wandering misstrals seeking "public wisdom," a dark task at best.

Southern California Edison says it can have the 1632 tons of nuclear waste at San Onofre ready to move by 2020. That is good progress since the PSDAR accepted Sept 2014 set 2032 as the earliest removal.

But nothing will happen without a site to which it can be moved. In March 2015 DOE Secretary Moniz promised one commercial Interim consent based site would be built. Someone at the meeting spoke to the difficulty of moving a bureaucracy to action having been a career federal employee. John, I think, mentioned a new Agency to make sure everything doesn't stop moving forward with each national election. I have had a hard time getting anyone to comment on either the Senate or House bills that would change the Nuclear Waste Act to allow Interim storage. S 854 and HR 3643. Both could easily get stuck in committee where political hot topics like to remain. We need a bill now. What if you presented both bills with two sides of opinions as we have about resolutions in our California voter packets? List what the bills contain and let two sides go at it. Then the public meetings might make more sense. The country must pass a bipartisan bill to get the fuel moved. Whether one is pro or anti future nuclear power, the taxpayer cannot afford this stalemate since 1998 over the back end of storing nuclear waste. It will break the US taxpayer. As you speak to the nation about consent based storage, they must understand that even though they may never have gained one second of energy from nuclear power, they are financially responsible for the safe storage of the waste forever.

In that same conversation, one of you on the panel spoke about forcing the nuclear utilities to STANDARDIZE. That was a brave and hopeful statement. I heard it also from Melissa Bates at the NWTRB meeting. I was glad you mentioned both her and NWTRB as resources for those of us listening and concerned about interim consent-based siting. The nuclear industry and its vendors have been out there like the early days of oil well drilling, a kind of wild west rugged individualism a John Wayne character might have made up. The problem is illustrated in our San Onofre decommissioning site. We have two different vendors with two different systems of dry storage with no current way to fix damaged canisters or transfer them if damaged. No cranes, no inspection and it looks like two different DOE transport rail cars needed for the two types of canisters planned to be stranded at San Onofre for the next 20 to 300 years. The DOE Holtec canister fully loaded in a cask on a special rail car would weigh 370 tons. The Areva canister fully loaded railcar would be 282 tons. How many different railcars and different ISSFI storage areas will need to be paid for by the taxpayer because they are all different? How many emergency dry transfer systems will need to be built, with different cranes for moving canisters, new spent fuel pools with reworked cooling systems and backup corrosion cracked canisters or damages we can't yet imagine. How much money will continue to be spent testing each different system for approval? Andy Griffith mentioned a Proto- type rail car that is being tested for the DOE. I think the company is Areva. Which of their canisters is being tested for transport on that rail car? Is the Areva type of canister now at San Onofre being tested for transport? If not, how long do we have to wait? And what about the new Holtec system at San Onofre? Or the older Holtec canisters at Diablo? For 70 years the nuclear utilities have gained profit without planning for the taxpayer expense starting to hit this country. Standardization is long overdue. In the "profit" culture of the nuclear corporations, someone must be saying. 'Hey guys, this isn't an oil spill or a gas leak. A mistake here is forever.'

Please inform the public as you hold your meetings. Help SCE get the spent fuel off our California coast. They want to. Set the goal of an Interim consent based site ready for fuel transport in ten years. Be heroes. I have met a few in the last five years, and they have made all of the difference.

My best wishes to you all. Marni Magda

Consent Based Siting

From: Fitzgerald, David
Sent: Monday, January 25, 2016 11:21 AM
To: Consent Based Siting
Subject: Comments to 5 questions for consent based siting

Dear sirs,

The below comments are my personal comments to the 5 questions posed by the US DOE regarding consent-based siting of waste fuel rods, and do not represent the opinions or position of my employer, Engie NA (formerly called GdF Suez NA).

- **How can the Department ensure that the process for selecting a site is fair?**
 - a) All residents local to the site should be advised of the technical issues and likely changes to the local economic and natural environment that may occur following agreement to host the waste site
 - b) Residents that object should be given the option to be relocated to equivalent housing anywhere in the continental US they prefer, at the Departments cost.
 - c) Persons that live along the likely transport route to be advised of the new risks associated with the transport plans
 - d) Local political representatives must be completely transparent in their representation of their financial interests in the outcome of the decision to host the site.
- **What models and experience should the Department use in designing the process?**
 - a) Lessons learned from the Yucca mtn debacle should inform the Department to implement policies that prevent political forces from obscuring physical and technical facts that should be used to determine site suitability.
 - b) Consent based initiatives in other countries, such as Switzerland and Sweden, can be used as a starting point.
 - c) While the interim notation implies a nominal 100yr site duration, it seems likely the site will evolve to a de facto longer term storage site with no practical and effective recourse for the host site to enforce the 100 yr limit. Refer to the longstanding issues and schedule overages at Hanford, for example. Therefore the design of the site should be based on the best technology to provide longer term integrity while maintaining the removable cask capability.
- **Who should be involved in the process for selecting a site, and what is their role?**
 - a) local residents and their political representatives must be informed and provided with a veto right.
 - b) persons local to the transport route should be apprised of the likely risks associated with accidents and the efforts made to reduce those risks, and also the efforts deliberately not made to reduce those risks .

c) independent geologists, scientists, and engineers should have full access to the technical data while avoiding compromises to security of the site and transport route.

- **What information and resources do you think would facilitate your participation?**
 - a) No comment
- What else should be considered?
 - a) To improve long term integrity of the site, the concrete casing for the casks may be upgraded to impermeable geopolymers concrete (fiber reinforced , cured in place at 100 C for 24 hrs , zero salt content). Refer to UK and australian developments on this subject.
 - b) Rail connectors within 1 km of all RR transport bidges to be upgraded to threaded bolts with spring clips. NHTSB records to be reviewed regarding all past derailments and those major causes be addressed for the particular routes chosen for transport. Input from foreign countries on how to minimize derailments to be obtained.
 - c) Site foundation to include 300 yr HDPE liner over "activated red mud" over clay. The site should not to be developed over a major aquifer.,

Regards,

David Fitzgerald, PE

Reg PE in Wa, NJ, NCEES

Consent Based Siting

From: Russell Hardy
Sent: Friday, January 22, 2016 4:28 PM
To: Consent Based Siting
Cc: Russell Hardy; John Heaton
Subject: public comment

Thank you for hosting the initial meeting on developing a consent-based siting approach for new DOE nuclear facilities. As the director of an independent environmental monitoring agency associated with the Waste Isolation Pilot Plant, please accept the following comment as it relates to future consent based siting efforts:

The Carlsbad Environmental Monitoring & Research Center (CEMRC), an entity of the New Mexico State University (NMSU) in Las Cruces, NM, is funded through a financial assistance grant by the U.S. Department of Energy (DOE) to conduct an independent environmental monitoring program in conjunction with the Waste Isolation Pilot Plant (WIPP), a DOE-owned deep geologic repository for the permanent disposal of defense-related transuranic (TRU) nuclear waste, located in southeast New Mexico. The CEMRC was created at the behest of local politicians and the local citizenry in southeast New Mexico to provide an independent analysis of the impact, if any, that the WIPP has on the local environment (primarily air, water, soil) and on the people living in southeast New Mexico. In addition to its analytical laboratory capabilities, the CEMRC also maintains an in-vivo internal dosimetry laboratory (also known as a lung and whole body counter) which not only helps support the safety of radiation workers in the surrounding area, but that also provides free internal radiation screening for local residents. The CEMRC program was initially established in 1991 and has been performing lung/whole body counting and environmental sampling and analyses activities since 1997 – a full two years before waste emplacement activities began at the WIPP. Doing so allowed the CEMRC to establish a baseline of normal or “background” monitoring levels in the local population and in the environment around WIPP from which to compare post-operational monitoring levels against.

For almost 15 years, the CEMRC was not able to scientifically differentiate pre-operational environmental levels from post-operational environmental levels at the WIPP – despite more than 90,000 m³ of TRU waste being emplaced within the WIPP facility. This, of course, changed with the underground radiation release event that occurred within the WIPP facility on the evening of February 14, 2014. Following that release event, the CEMRC was the first entity to announce the detection of minor amounts of WIPP-related radioactive contamination in ambient air samples collected approximately ½ mile northwest of the WIPP facility. Throughout the WIPP recovery process, the CEMRC has continued to provide timely and accurate environmental monitoring data to the DOE and to the local and scientific community, as it relates to the WIPP release, and serves as an invaluable resource to the community by providing a secondary source for confirmation of the environmental monitoring data being provided by the DOE and its M&O contractor, Nuclear Waste Partnership (NWP). Because of the CEMRC’s analytical processes and its ultra-sensitive analytical equipment, many scientists have stated that the CEMRC continues to provide the most timely, informative, and comprehensive environmental monitoring data available as it relates to the WIPP radiation event.

So what does this have to do with consent-based siting? It is my belief that the DOE should consider including an independent environmental monitoring program, like the CEMRC program, as a mandatory component when siting a future DOE-owned or DOE-managed nuclear facility. As has been shown with the WIPP example, the establishment of the CEMRC created an independent mechanism to help engender support in terms of siting a nuclear waste repository by ensuring area residents and local constituents that their environment would be continually monitored and that the environmental impact of any DOE defense-related waste disposal activities would be communicated to the public as quickly as possible – regardless of whether that impact was determined to be good, bad, or indifferent. Additionally, the CEMRC program created the first instance in which environmental monitoring activities were conducted prior to the beginning of waste emplacement operations which allowed for the determination of a normal or “background” environmental signature from which to compare post-operational activities to. Lastly, as was evident immediately after the February 14, 2014 underground radiation event, the CEMRC program provided reassurance to the local community by providing an independent voice and an independent confirmation of DOE-supplied environmental monitoring results as opposed to only receiving information from the DOE or its operations contractor.

It is my belief that the establishment of the CEMRC program added value to the DOE by helping to increase local constituent support for the ultimate siting of the facility initially and helping to reassure and calm local constituents following the February 14, 2014 underground radiation event. Therefore, I believe an independent environmental monitoring program should become part of the requirement for any future consent-based siting decisions.

Thank you for the opportunity to participate in this process. I wish you luck in your endeavors.

Sincerely,

Russell Hardy, Ph.D.
Director
Carlsbad Environmental Monitoring & Research Center

Consent Based Siting

From:
Sent: Thursday, January 21, 2016 2:40 PM
To: Consent Based Siting
Subject: Place me on Electronic Mailing List

This is to request to be put on the electronic mailing list for the DOE consent-based siting process.

Thank you,

Sarah Fields

Consent Based Siting

From: Deb Severson
Sent: Thursday, January 21, 2016 2:32 PM
To: Consent Based Siting
Cc: Consent Based Siting
Subject: 2 Requests

Hello

Thank you for enabling broad participation in yesterday's kick-off webinar.

During the webinar, I sent a request to receive notifications. But, I did not have "hq" in the email address so am not certain that you received it. Please add me to your distribution list.

Also during the webinar, I asked which states have expressed interest in hosting a site, and in particular if WI has. Time did not afford the answering of this. Meeting facilitators promised to answer all questions and to ensure transparency of conversations on this matter, so I'd like to repeat and expand my question to also more generally ask for the jest of conversations, if any, have occurred with WI energy policy makers or regulators.

Thank you in advance for addressing the above.

I know you've got a tough job ahead, and I wish you wisdom and patience as you proceed.

All the best, Deb

Deb Severson

"The ultimate measure of a man is not where he stands in moments of comfort and convenience, but where he stands at times of challenge and controversy." Martin Luther King, Jr.

Consent Based Siting

From: Donna Gilmore
Sent: Thursday, January 21, 2016 1:53 PM
To: Consent Based Siting
Subject: add to email list

Please add me to your email list for receiving updates.

Donna Gilmore

Consent Based Siting

From: Betsy Madru
Sent: Thursday, January 21, 2016 12:09 PM
To: Consent Based Siting
Subject: Distribution list

Good morning,

Will you please add me to your distribution list? Thank you!

Betsy Madru
Vice President of Government Affairs
Waste Control Specialists LLC

Consent Based Siting

From: skygvt
Sent: Thursday, January 21, 2016 10:14 AM
To: Consent Based Siting
Cc: Schuyler Gould
Subject: Consent based nuclear waste storage

Please send me any and all updates regarding DOE's development of consent based nuclear waste storage policies and regulations, including the schedule for any public meetings. Thank you.

Schuyler Gould

Barre, VT

Consent Based Siting

From: Mary Olson
Sent: Wednesday, January 20, 2016 11:37 PM
To: Consent Based Siting
Subject: Two Requests for DOE Consent-based folks

Dear Team, congratulations on your “kick-off.”

Two requests:

- 1) Please add me to your “update list” –
- 2) Please post the video from the kick-off on-line (with sound) for those who were at work, or otherwise missed your event.

THANK YOU!

Mary

Mary Olson
Nuclear Information and Resource Service, Southeast

www.nirs.org

Consent Based Siting

From: Abigail Johnson
Sent: Wednesday, January 20, 2016 3:01 PM
To: Consent Based Siting
Subject: Please add me to your e-mailing list

Please add me to your emailing list so that I can find out when meetings are scheduled and as public participation opportunities are scheduled. Thank you.

Abigail Johnson
Eureka County Nevada

Consent Based Siting

From: Charles Irvine
Sent: Wednesday, January 20, 2016 2:42 PM
To: Consent Based Siting
Subject: Consent-based siting process

Please place my contact information on the mailing/email distribution list for all notices and meetings related to the "Invitation for Public Comment To Inform the Design of a Consent-Based Siting Process for Nuclear Waste Storage and Disposal Facilities," 80 fed. Reg. 79872 (Dec. 23, 2015).

Thank you.

Charles Irvine | Irvine & Conner, PLLC

Consent Based Siting

From: BADER Sven (AREVA)
Sent: Wednesday, January 20, 2016 2:23 PM
To: Consent Based Siting
Subject: Add Me to Mailing List

Dear CBS,

As Andy Griffith mentioned during CBS kickoff today, please add my e-mail address to the e-mail distribution list for consent based siting activities.

Cordially,
Sven



AREVA
forward-looking energy

Sven Bader, PhD, PE
Advisory Engineer
AREVA Federal Services LLC

Consent Based Siting

From: Ivy Wheeler
Sent: Wednesday, January 20, 2016 2:22 PM
To: Consent Based Siting
Subject: Please add me to the mailing list

Thank you!

Ivy Wheeler | Senior Manager, NARUC Research Lab
National Association of Regulatory Utility Commissioners (NARUC)

Consent Based Siting

From: Katrina McMurrian
Sent: Wednesday, January 20, 2016 10:12 AM
To: Consent Based Siting
Subject: RE: webinar

Thank you so much, and best to all of you dealing with the snowfall there! I know it's a challenge for DC with just a little snow, so I hope officials are prepared this time.

From: Consent Based Siting [mailto:consentbasedsiting@hq.doe.gov]

Sent: Wednesday, January 20, 2016 8:41 AM

To:

Subject: webinar

No problem. The website for the webinar will work. <https://join.onstreammedia.com/go/ast/consent-based-siting-kickoff-meeting>

We might end up with 20+ inches of snow in the DC area this weekend!

Katrina McMurrian has a question for you about your event Consent-based Siting Kickoff Meeting.

I was registered to attend today's event in person; however, the Nashville weather conditions this morning changed my travel plans. I'd like to watch the webinar but didn't register in advance for that. Can I simply go to the webinar link and participate despite no pre-registration? Also, please feel free to make a seat available for someone else at the event today since I won't make it as planned. Thanks so much, Katrina

This message was sent to you via Eventbrite.

Collect event fees online with Eventbrite



Consent Based Siting

From: Gary Headrick
Sent: Wednesday, January 20, 2016 7:06 AM
To: Consent Based Siting
Subject: Response to IPC

The decisions about consent based siting for nuclear waste should have begun with communities like ours at San Onofre, where we have been forced to become a nuclear waste site for perhaps hundreds of years, without ever being consulted. It was the failure of the DOE to come up with a suitable long term storage solution that created this situation. It should be your responsibility to address our concerns as your first priority.

The following conditions are the minimum expectations that should be met for any community being forced to accept this unfair and extremely dangerous situation: Nuclear waste being stored at sites like ours should have redundant unmanned backup systems capable of keeping us safe in the event of any kind of natural or manmade disaster. Dry storage containers should be designed to be readily transportable, be able to withstand the elements without the likelihood of cracking, potential leaks should be detectable with advanced warning and repairable or reloadable on site if containment shows signs of failing.

Currently, the experimental plan at San Onofre is to bury 89 times more radiation than was released in the Chernobyl accident, in sandstone bluffs, 100 feet from the Pacific Ocean and only inches above the water table, using inferior stainless steel tanks only a half inch thick, surrounded by concrete. We were never consulted and would never have approved such a plan.

In order to get community consent for keeping nuclear waste much longer than ever agreed to, we need the DOE to make sure that sites like San Onofre use the best storage system possible with many layers of redundant safety features, adequate emergency handling capabilities, and a realistic plan to relocate this lethal waste ASAP.

If there should be even the slightest radioactive leak, the federal government should be responsible to pay residents and businesses, the previous fair market value for their property and relocation expenses or any other related damages, without tapping into the decommissioning funds.

Public outreach should include equal opportunities leading up to a special election for proponents and opponents to express their positions, without the industry dominating the processes as they do now. Consent for any proposed plan should be determined by majority vote of those living within a designated area, perhaps fifty miles, of the nuclear waste storage facility, whether it is a temporary or permanent site and those communities along the transportation route.

Finally, a public oversight committee comprised of local environmentalists, community health and safety advocates and independent nuclear experts should oversee implementation of the consent based plan.

Gary Headrick - San Clemente Green -

Consent Based Siting

From: MARSHALL COHEN
Sent: Friday, January 15, 2016 8:52 PM
To: Consent Based Siting
Cc: Bickford, Erica
Subject: Re: Consent-based Siting Meeting Logistics

Thank you very much.

Marshall Cohen

> On Jan 15, 2016, at 7:48 PM, Consent Based Siting <consentbasedsiting@hq.doe.gov> wrote:

>
> Mr. Cohen,
>
> The information can be found at the bottom of our website energy.gov/consentbasedsiting
>
> Thanks for your interest,
>
> -The Consent-based Siting Team
>
>

> -----Original Message-----

> From: Bickford, Erica
> Sent: Friday, January 15, 2016 6:17 PM
> To: Consent Based Siting <consentbasedsiting@hq.doe.gov>
> Subject: FW: Consent based siting earring next week
>
>
>

> -----Original Message-----

> From: MARSHALL COHEN
> Sent: Friday, January 15, 2016 2:13 PM
> To: Bickford, Erica
> Subject: Consent based siting earring next week
>

> Good afternoon, Erica. I was referred to you by Christine Csizmadia at NEI. I do some consulting on nuclear matters, including used fuel issues and am interested in coming to the hearing (or meeting?) next Weds. Can you advise on time, place and agenda? That would be helpful. Thank you very much.

>
>
>

>
> Marshall Cohen
> Public Affairs Strategies LLC
>
>

Consent Based Siting

From: Aho, Patricia (Collins)
Sent: Thursday, January 14, 2016 3:50 PM
To: Consent Based Siting
Subject: RE: Add to interested persons list

I appreciate it greatly!

Patricia Aho
State Office Representative
U.S. Senator Susan M. Collins

From: Consent Based Siting [mailto:consentbasedsiting@hq.doe.gov]
Sent: Thursday, January 14, 2016 3:06 PM
To: Aho, Patricia (Collins)
Subject: RE: Add to interested persons list

We will add you. Thanks for your interest.

-The Consent-based Siting Team

From: Aho, Patricia (Collins)
Sent: Thursday, January 14, 2016 2:28 PM
To: Consent Based Siting <consentbasedsiting@hq.doe.gov>
Subject: Add to interested persons list

Would you please add me to your interested persons/stakeholder list to receive information regarding the consent based siting process and upcoming meetings?

Thank you very much,

Patricia Aho
State Office Representative
U.S. Senator Susan M. Collins

Consent Based Siting

From: Aho, Patricia (Collins)
Sent: Thursday, January 14, 2016 2:28 PM
To: Consent Based Siting
Subject: Add to interested persons list

Would you please add me to your interested persons/stakeholder list to receive information regarding the consent based siting process and upcoming meetings?

Thank you very much,

Patricia Aho
State Office Representative
U.S. Senator Susan M. Collins

Consent Based Siting

From: Mary Olson
Sent: Wednesday, January 13, 2016 8:53 PM
To: Consent Based Siting
Subject: Question re: Jan 20 Kick-off for "consent based" siting

Dear CONSENTBASED SITING:

Do you plan to have a phone line open, or streaming on internet for the Jan 20 consent siting meeting (agenda: <http://www.energy.gov/sites/prod/files/2016/01/f28/2016.01.20%20-%20Agenda%20-%20CBS%20Kick-Off%20Meeting.pdf>)

In DC?

There is no info about that on either the website or the agenda. Please post. IF you send it to me in an email I will be sure that many of the "concerned public" receive it.

Sincerely,
Mary Olson
Nuclear Information and Resource Service, Southeast

www.nirs.org

Consent Based Siting

From: Abe Van Luik
Sent: Tuesday, January 12, 2016 11:09 PM
To: Consent Based Siting
Subject: Response to request for input on consent based siting by DOE NE

This response is by me, Abraham Van Luik, Carlsbad, New Mexico. It is a response from a private citizen, I am not representing the views of my employer or any other entity.

Questions for Input

(1) How can the Department of Energy ensure that the process for selecting a site is fair?

Consent based siting seeks to ensure fairness in the distribution of costs, benefits, risks and responsibilities now and in future generations. How, in your view, can fairness be best assured by the process for selecting a site?

Fairness is not a legitimate concern. The Nuclear Waste Negotiator approach was as fair an approach as anyone could possibly wish for and it was a dismal failure because no community was interested, and in cases where there was community or tribal interest the state government stepped in and quashed the process. Today there are two volunteer sites, one in Texas and one in New Mexico, both with a degree of local and regional/state support, undergoing a privately funded licensing process. Both those sites ought to be used by DOE and the consent based approach should be reserved for use in identifying potential repository sites.

(2) What models and experience should the Department of Energy use in designing the process?

The challenges and opportunities of site selection drive us to continue to learn from previous or ongoing examples. From your perspective, what experience and models do you think are the most relevant to consider and draw from in designing the process for selecting a site?

The experience and model of effective site selection is, more often than not, the selection of a site in an area where nuclear facilities already exist, are accepted, and trusted to be safe. This was the case in Sweden and in Finland, and will be the case in Canada. France has a site in a rather poor area looking for an economic boost, but generally the French nuclear industry is seen favorably and trusted, which is not the case for DOE. What models do NOT work? The fair and comprehensive national site selection processes widely advertised in Germany (iteration number two) and Japan (also iteration number two) have produced no results. Allowing cantons to reject repository siting studies in Switzerland had to be taken away by the national government to allow progress to be made. The approach being followed here seems to be headed in the same direction as the German and Japanese examples. The almost universal experience has been local support that fades with distance (distance from the economic benefits) and turns to opposition farther away in areas not needing the economic stimulus of a nuclear project. These are harsh realities that call into question a very broad definition of what is involved in “consent.”

(3) Who should be involved in the process for selecting a site, and what is their role?

The Department believes that there may be a wide range of communities who will want to learn more and be involved in selecting a site. Participation in the process for selecting a site carries important responsibilities. What are your views on who should be involved and the roles participants should have?

Community, county and state elected official who are responsive to their constituencies' needs for safety and economic opportunity ought to be the decision makers. Public meetings ought to be held and orchestrated by those leaders. Public officials ought to be in a better position than the public as a whole to reflect the need to balance values and opportunities that will affect near-future generations since these are multi-generation affecting facilities.

(4) What information and resources do you think would facilitate your participation?

The Department of Energy is committed to ensuring that people and communities have sufficient information and access to resources for engaging fully and effectively in siting. What information and resources would be essential to enable you to learn the most about and participate in the siting process?

Websites need to give detailed descriptions of what is proposed, its economic basis, and its safety basis. Interviews ought to be orchestrated to inform the public through newspaper and television and internet news articles presenting the proponent's and regulator's case for safety, first responder organizations declaring their readiness to deal with potential mishaps, and detractors points of view. Detractors need to be responded to at a publicly understandable but technical level in public meetings and through responses in news articles.

(5) What else should be considered?

The questions posed in this document are a starting point for discussion on the design of the process for consent-based siting of nuclear waste facilities, the Department of Energy would like to hear about and discuss any related questions, issues, and ideas that you think are important.

The months and months of time allotted to receiving comments on this proposed plan are absurd. This activity ought to be given national emergency status since almost a half billion taxpayer dollars per year are going out to utilities because of the breach of contract lawsuits filed by those who paid for DOE to take their waste and then did not have it taken. Judgment fund money is taxpayer money. Moving directly to contracting with the Texas and New Mexico private off-site storage sites and providing them funds to accelerate their licensing and construction processes would to allow the bleeding of taxpayer dollars through the judgment fund to slow and then stop, saving very near-future generations billions! There are no safety issues if the NRC licenses and oversees these facilities, they have already been licensed in other places at a smaller scale. There is already local, regional, and state support for these two sites. To follow this agonizingly slow approach in order to create a "fair" site-selection process is tantamount to wasting the taxpayers' hard earned dollars at an incredible rate for many years to come. Making a strong case to Congress on the basis of saving many, many billions in taxpayer dollars per year over decades may actually be fruitful, and is definitely the right thing to do for the nation.

Consent Based Siting

From:
Sent: Friday, January 08, 2016 12:16 PM
To: Consent Based Siting
Subject: Re: consent based repository siting

Has congress authorized the consent-based process for locating pilot interim storage, a larger interim storage facility, deep borehole burial and a geologic repository?
Susanne E. Vandenbosch

In a message dated 1/7/2016 1:34:28 P.M. Pacific Standard Time, consentbasedsiting@hq.doe.gov writes:
Greetings,

DOE is seeking input on the elements that we should consider in the development of a consent-based siting process. We are seeking input related to any or all facilities in an integrated waste management system.

The Administration's Strategy envisions the implementation of an integrated waste management system consisting of a range of nuclear waste facilities, each serving a specific role, to address the challenges facing the U.S. These nuclear waste facilities could include:

- A pilot interim storage facility with limited capacity capable of accepting used nuclear fuel and high-level radioactive waste and initially focused on serving shut-down reactor sites;
- A larger, consolidated interim storage facility, potentially co-located with the pilot facility and/or with a geologic repository, that provides the needed flexibility in the waste management system and allows for important near-term progress in implementing the federal commitment;
- Deep borehole disposal, which could be an option for disposal of smaller and more compact waste forms currently stored at Department of Energy sites;
- A permanent geologic repository for the disposal of defense high-level waste and, potentially, some DOE-managed spent nuclear fuel, which would be generally less radioactive, cooler, and easier to handle, enabling a simpler design and earlier availability; and
- A permanent geologic repository for the disposal of commercial spent nuclear fuel.

Thank you for your interest.

The Consent-Based Siting Team

From:
Sent: Thursday, December 24, 2015 12:11 AM
To: Consent Based Siting
Subject: consent based repository siting

The December 21, 2015 issue of The Las Vegas Review-Journal reports that the 'consent-based' process for nuclear waste has been started. It is my understanding that this has been recommended by the Blue Ribbon Commission but has yet to be authorized by Congress. Perhaps the 'consent-based' process mentioned in the LVRJ article refers to locating a repository for defense waste. Can you clarify this for me.

Susanne E. Vandenbosch, Ph. D. Co-author of Nuclear Waste Stalemate: Political and Scientific Controversies

Consent Based Siting

From: Jim Williams
Sent: Thursday, January 07, 2016 12:51 PM
To: Consent Based Siting
Subject: Question on IPC Meetings

1. When will first meeting (in DC) be scheduled? If already scheduled, what is the date?
2. How many meetings will be scheduled?
3. Will meetings be scheduled in the West? If so, what are the places and/or dates?
4. Will additional materials be provided in advance of the meetings?
5. Will meetings be available by webinar?.....ie remotely.
6. Will DOE respond to comments? If so, how?

Thanks you. Jim Williams, WIEB HLRW Program Manager.....

Consent Based Siting

From: Silberg, Jay E.
Sent: Thursday, January 07, 2016 10:06 AM
To: Consent Based Siting
Subject: Public Meeting on Consent-Based Siting Process

The December 21, 2015 email from Andrew Richards stated that a series of public meetings would be held in 2016 on designing a consent-based siting process for nuclear waste facilities and that the first of these meetings would take place in Washington DC in January 2016. Please notify me when those meetings, and particularly the Washington DC meeting, have been scheduled. Thank you.

Jay E. Silberg | [Pillsbury Winthrop Shaw Pittman LLP](#)

www.pillsburylaw.com

Consent Based Siting

From: John Heaton
Sent: Monday, January 04, 2016 6:39 PM
To: Consent Based Siting
Subject: Jan 20th Meeting

Dear Sirs/Madams;

Could you please provide me with an agenda for the Jan 20th meeting in D.C. on consent based siting. Also, will the meeting be web-casted for those that cannot attend personally? I am a board member of the Eddy-Lea Energy Alliance who, as you know, is aggressively moving forward with developing a Consolidated Interim Storage site with our partner Holtec International. This topic is of significant interest to us from several points of view, and we have been contemplating many points for some time.

Best regards,

John Heaton

Consent Based Siting

From: Jerry Haimowitz
Sent: Saturday, January 02, 2016 9:04 AM
To: Consent Based Siting
Subject: Response to IPC

Response to IPC

The founding principal of any waste storage program must be "the polluter Pays 100% of cost". The amount of money currently being set aside for reactor decommissioning and waste storage is not large enough. The permanent storage system will require containers that can be monitored and replaced when needed. Remember, high level nuclear waste will have to be stored for 10,000 years.

Sincerely

Jerry Haimowitz

Consent Based Siting

From: Les Wolff
Sent: Friday, January 01, 2016 10:47 AM
To: Consent Based Siting
Subject: Question on IPC

Where do I find the proposed siting for South Dakota and the information surrounding those proposed sites?

Les Wolff

Sent from my iPad

Consent Based Siting

From: Alex Cannara
Sent: Thursday, December 31, 2015 8:03 PM
To: Consent Based Siting
Subject: nuclear power

Re your article:
<http://energy.gov/articles/finding-long-term-solutions-nuclear-waste>

The Carter administration naively shut down our fuel processing facility in S. Carolina. After all these years DoE is deciding to address spent fuel?

As the French have long demonstrated, ~95% of LWR spent fuel isn't waste at all. <http://tinyurl.com/kkmyhze>

The President's Blue Ribbon Commission in 2012 demonstrated further fumbling. It, along with DoE, have failed our country's past leadership in advanced energy sources. Not a single member of the Commission knew of this report to JFK, when I held it up to all 12 of them in a DC hearing: <http://tinyurl.com/6xgpkfa>

Meanwhile, DoE has delivered ORNL technology to the Chinese, via ORNL and other groups, at no charge. Why should this piece on storage of the ~5% of used LWR fuel that actually is "waste" be viewed as an important DoE initiative?

--

Dr. Alexander Cannara

Menlo Park, Calif.

Consent Based Siting

From: Wojcik, Thomas J:(GenCo-Nuc)
Sent: Monday, December 28, 2015 10:53 AM
To: Consent Based Siting
Subject: Yucca Mountain

I too agree with South Carolina, Yucca Mountain was paid for with tax payer dollars so if Obama and Reed don't want to follow through and meet their commitment, they should pay the money back, all \$13 Billion. It is disturbing that in a Democracy, 2 individuals can stop this significant effort that science has shown to be the right thing.

What's to say that consent based will work when the political leadership is constantly changing.

The Europeans have figured this out, why haven't the Americans who invented this technology ?

Are there any adults left in Washington ?

Signed "A very concerned citizen".

Consent Based Siting

From: Greg White
Sent: Thursday, December 24, 2015 3:37 PM
To: Consent Based Siting
Subject: Comments

Leave the waste, (unspent fuel) right where it is and concentrate your efforts on a molten salt reactor that will burn that fuel. Simple, bipartisan and cheap.

Greg White

Consent Based Siting

From: Janice Palma-Glennie
Sent: Thursday, December 24, 2015 3:10 PM
To: Consent Based Siting
Subject: Comment: Consent-Based Siting Process for Nuclear Waste Storage and Disposal Facilities

Aloha,

I believe strongly that nuclear energy is NOT the way to power our nation's future. Its use has never been proven to be safe. Quite the contrary. And its safe disposal is impossible with today's technology.

There is no one who wants nuclear waste in their back yard except those who would take advantage of the financially disadvantaged.

Please help shift our nation's focus away from nuclear power and toward more sustainable, safe, conservation-oriented methods of powering our nation.

Thank you and sincerely,

Janice Palma-Glennie

Consent Based Siting

From: Norrie Robbins
Sent: Thursday, December 24, 2015 1:52 PM
To: Consent Based Siting
Subject: Nuclear waste storage when there is no "away"

It is admirable for our species to be on the lookout for places that are safe to dispose of substances that will remain harmful for thousands of years into the future. Admirable, but also ridiculous. There is no away, and you know this. Our research money should be spent on 1) figuring out how to break down radioactive waste into non-harmful substances, 2) creating new energy technologies, and 3) shutting down facilities that create radioactive substances.

--
Eleanora I. Robbins, PhD

Consent Based Siting

From:
Sent: Thursday, December 24, 2015 12:11 AM
To: Consent Based Siting
Subject: consent based repository siting

The December 21, 2015 issue of The Las Vegas Review-Journal reports that the 'consent-based' process for nuclear waste has been started. It is my understanding that this has been recommended by the Blue Ribbon Commission but has yet to be authorized by Congress. Perhaps the 'consent-based' process mentioned in the LVRJ article refers to locating a repository for defense waste. Can you clarify this for me.

Susanne E. Vandenbosch, Ph. D. Co-author of Nuclear Waste Stalemate: Political and Scientific Controversies

Consent Based Siting

From: Jeff Williams
Sent: Wednesday, December 23, 2015 11:42 AM
To: Consent Based Siting
Subject: Consent based siting

Please keep me informed of progress on this important step that is long overdue.

Consent Based Siting

From: Rocco Cuteri
Sent: Wednesday, December 23, 2015 10:12 AM
To: Consent Based Siting
Subject: waste repository

We have a number of very large underground caverns in New Mexico created by weapons testing. They are already radioactive . Why can't we 'dump' the waste down these holes?

--

...Rocco Cuteri

Consent Based Siting

From:
Sent: Wednesday, December 23, 2015 6:36 AM
To: Consent Based Siting
Subject: Nuclear waste repository

Why doesn't the government explore sending the waste into deep space? Up - Out - Gone!

Sent from my iPad

Consent Based Siting

From: Steven Santos
Sent: Tuesday, December 22, 2015 9:22 PM
To: Consent Based Siting
Subject: Why storage?

Wouldn't it make more sense to develop a reactor that can process the spent fuel?

Steven Santos

Consent Based Siting

From: Ed Friedrichs
Sent: Tuesday, December 22, 2015 1:37 PM
To: Consent Based Siting
Subject: Nuclear waste repository - Yucca Mountain

I am a Nevada resident and strongly favor the location of the nuclear waste repository at Yucca Mountain. This plan was approved by our congress and others long ago. It's time to go forward with it. We have remarkable scientists at University of Nevada, Reno, who specialize in recycling and repurposing nuclear waste into useful material. They, as do the French, have a proven, industrialized process to do so. Nevada can and should become the center for this technology.

Sincerely,

Ed Friedrichs
Friedrichs Group, LLC

Consent Based Siting

From: Daniel Bloom
Sent: Tuesday, December 22, 2015 1:35 PM
To: Consent Based Siting

To Whom It May Concern,

From Mr. Orr's blog post, it is unclear what action DOE is taking in its "launch of the consent-based siting initiative." Is it a federal register notice asking for public comment, is DOE accepting bids to house disposal sites in local communities. What form of action has this (proposed) waste disposal plan taken. Please clarify. I am on a tight 3pm deadline.

Sincerely,

Daniel Bloom
Energy Reporter
CQ Roll Call

Consent Based Siting

From: Jerry Haimowitz
Sent: Tuesday, December 22, 2015 12:33 PM
To: Consent Based Siting
Subject: long term storage of nuclear waste

Dear Sir:

The first principle of nuclear waste storage should be that the user of the nuclear material pays the full cost of disposal! There should be no public subsidy, no escaping the financial burden by bankruptcy or other legal gimmicks. The second principal should be public safety. While the risk of an accident or terrorist incident are low, the consequences of a melt down are so great, that risk must be minimized. These two principles mean the government should take two actions: 1. Require all users to provide long term secure storage on site, or at privately owned facilities. 2. Require the current users to escrow even more money to pay for indefinite maintenance and security of storage facilities. No storage system will last forever. Storage must be designed to be monitored and maintained.

Sincerely

Jerry Haimowitz, PE, BCEE
Eatontown, NJ

Consent Based Siting

From: Perlas, Tommy
Sent: Tuesday, December 22, 2015 11:13 AM
To: Consent Based Siting
Subject: Consent-Based Siting Process

Who is the contact person (and phone) for this consent-based siting process for nuclear waste storage and disposal facilities?

Thanks,

>>>>>>>>>>>>>>>>>>>

Tommy Perlas

Research Analyst/Editor
Research & Custom Solutions

Bloomberg BNA

Consent Based Siting

From: Karl Herchenroeder
Sent: Tuesday, December 22, 2015 9:54 AM
To: Consent Based Siting
Subject: DC meeting on consent-based siting

Hi, Andrew:

Have you guys nailed down a date and time for the meeting on consent-based siting?

Best Regards,
Karl Herchenroeder
Reporter
RadWaste Monitor
ExchangeMonitor Publications & Forums

Consent Based Siting

From: Cohen, Jeffrey [USA]
Sent: Tuesday, December 22, 2015 8:49 AM
To: Consent Based Siting
Subject: consent based siting

Please keep me on your mailing list for any announcements related to this topic

Thank you

Booz | Allen | Hamilton
100 Years

Jeff Cohen
Associate

www.boozallen.com

Consent Based Siting

From: Andrew Benson
Sent: Monday, December 21, 2015 3:06 PM
To: Consent Based Siting
Subject: Public Comment on Consent-Based Siting

To whom it may concern,

This email is in response to the invitation to public comment listed on [DOE's website here](#).

"How can the Department ensure that the process for selecting a site is fair?"

DOE should create an active presence on social media dedicated to communicating specifically about this issue and process. For example, DOE could create a twitter account with a handle such as @DOESpentFuel that regularly posted information about events, public comment periods, and updates to the DOE website. Tweets are a really easy way for interested parties to quickly share information with their networks through the re-tweet function. Such a twitter account could also publicize hashtags or facilitate public conversation between interested parties.

As an example of the power of twitter, I found the webpage referenced in the beginning of the email through this tweet. By using social media, DOE will ensure that as many people as possible learn about the process and have the opportunity to participate.

To the extent possible, DOE should rely on elected representatives of local communities (city council members, mayors, county supervisors, and tribal council leaders) to make official determinations of community consent. Each prospective site could have a "site advisory board" (or a similar name) that is made up of either local elected official or qualified persons appointed by a vote of local elected officials that would represent the aggregate opinion of the local community. site advisory boards should solicit public comment from everyone, but their membership and voting decisions should flow from local elected officials. The establishment of a site advisory board should be a negotiated, consensus process among local governments with very minimal facilitation by DOE and more direct facilitation by local agency formation commissions.

"What models and experience should the Department use in designing the process?"

Models of a political process to be considered should include those in Sweden and Finland.

As a general theoretical, big-picture model of the process, I recommend the following steps:

- 1. Preliminary Scientific Acceptability:** DOE scientists and other interested parties should generate a preliminary list of potential sites that meet scientific criteria for appropriateness as a deep geological repository. This list should be as large as possible and as many sites as possible should be considered. The decision to include a site on the preliminary list should be based on already available data or data that can be gathered quickly and easily. Any stakeholder should be able to suggest a site, but inclusion on the list should be subject to scientific review.

2. Preliminary Community Interest: Once the preliminary list is finalized, the next step should be a political discussion whereby communities near potential sites volunteer for their local site to be selected for further scientific characterization. In this context, I would define "communities" as those represented by local, state, and tribal governments. Non-government groups should be given the opportunity to voice support or opposition to move forward with site characterization, but ultimate authority in representing the community should be based in elected government bodies and officials.

To encourage communities to volunteer, a general proposal of "community benefits" to be funded by the federal government/SNF feepayers should be outlined and advertised. Communities that are not interested in moving the process further to site characterization can register a statement of disinterest. It should be made explicit to the community that they still retain the right to revoke consent at a later stage.

3. Full Safety Characterization: after community interest is registered, then DOE should begin full characterization of multiple sites with an intent to gather information for NRC approval of a repository in at least one location. Some sites may prove ultimately unacceptable and should be abandoned-after public discussion-if the geology or hydrology warrants abandonment.

DOE should target full characterization of at least three sites that could potentially be brought forward to the next stage. Using a public process, DOE should prioritize the three (or more) sites and move forward with them to stage four. DOE should prioritize sites within this list based on response from communities. For example, if a community finds the scientific information to be highly favorable for their location, then that site should be prioritized.

4. Administrative Safety Determination: for each site DOE decides to move to this stage, DOE prepares an application to NRC (similar to the Yucca Mountain application). NRC reviews it with its already established procedures and makes a final decision as to the safety. DOE could enter multiple sites into this process either simultaneously or on a phased basis. The benefits of moving forward with multiple sites is insurance against the possibility of NRC or the community rejecting one site, as well as the possibility that ultimately developing two sites gives more options in delivering SNF to the location of final disposal. Since route selection for SNF is highly contentious, having the option to redirect SNF to another location could ease this process.

5. Ultimate Community Consent: a final, irrevocable decision on community consent should be the last stage of the process. This should be the last stage because we can't expect political leaders to make an informed decision to provide consent until the site is characterized sufficiently and given approval by the NRC. If the community does not consent, then DOE should move forward with other sites identified in Step 4.

Consent to siting should be irrevocable because of the large cost that goes into construction, operation, and closure. It would not be fair to taxpayers for the community to have the power to disapprove the site after massive expenditures have already been made.

6. Construction and Ongoing Community Oversight: DOE begins construction and operation of the site. The community advisory board continues its existence as an oversight board for the facility.

Who should be involved in the process for selecting a site, and what is their role?

(See above.) Anyone who can supply basic scientific information about a site should be eligible to propose a site. Local governments should decide whether that site should move forward for further characterization. DOE should decide whether to conduct that characterization and when to halt it if the data prove unfavorable. DOE should decide which sites to select when applying to the NRC, subject to sustained community interest. Community should retain a final (but irrevocable) power to reject or approve a site after the NRC has made a determination to approve.

What information and resources do you think would facilitate your participation?

A dedicated webpage on the DOE-NE website that is easy to use and lists public events and public comment periods.

What else should be considered?

Retrievability should be a high priority for all sites and disposal methods. It is not moral for present generations to render energy-dense actinides completely inaccessible to future generations. Just because our current political process and economic conditions have found an open-fuel cycle to be the preferred approach does not mean that we should ignore the possibility that future circumstances may change. Future generations may want to reprocess SNF and/or burn up all the actinides in SNF. It's a shame we don't want to, but that is beyond the scope of this context. I am only mentioning this because I want to urge DOE to continue to make retrievability an important criterion for site selection.

Thank you,
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