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Thankyou. pbliclyomed Wand andensure a sustainable, clean energiture for all Americans. **\$** adping the changs abore, the agnices can garantee the poteion ofour piceless

Sincerely, Rilliputchell 10479 N.Awnid Villejo Co Valley,A28537

4nis Andersen

2628 Worden Street, #45 , San Diego, CA 92110

February 8, 2008 1017 PM

West-wide Energy Corridor DEIS Argonne National Laboratory 9700 S. Cass Ave., Building 900, Mail Stop 4 Argonne, IL 60439

Subject:West-wide Energy Corridor

Dear Argonne National Labs:

many other resources on federal lands across the west. Once designated, the corridors will cover The proposed designations in the Department of Energy's Draft Programmatic EIS (PEIS) will 6,000 miles and almost 3 million acres of public lands. With large-scale buildup likely within have significant impacts to wildlife habitat, cultural resources, recreation opportunities, and these corridors, public involvement in the planning process is crucial to ensure that the designation of these corridors is a positive step for our public lands.

federal lands as places for oil, gas and hydrogen pipelines, and power lines, the government also By taking the responsibility to move forward with a process to designate large swaths of our took on the responsibility of doing it right. This would involve ensuring that:

- new pipelines or powerlines are actually needed:agencies should analyze the potential to meet maximizing the use of the existing power grid through technology upgrades before turning to growing energy demands through increased energy efficiency, distributed generation and additional or wider corridors on our public land;
- move corridors out of special places like Grand Staircase-Escalante National Monument and the corridors to avoid them. The agencies should use analysis provided by conservation groups to altogether:agencies should continue analyz ing impacts to special public lands and moving - federal lands are necessary locations and special or sensitive public lands are avoided dozens of other outstanding units which the proposed corridors would cross;
- recreation and views:agencies should make thei r Interagency Operating Procedures mandatory; - projects are subjected to best management practices to limit damage to other resources,
- risks to federal and other affected lands are realistically and thoroughly assessed, so that those federal lands and state, private, and tribal lands which will be impacted when the corridors are risks can then be avoided or minimized:agenci es should analyze cumulative impacts to both connected;

Conclusions

In this study, four "Big Questions" were asked:

- x What are the impacts to system design syptemed to traditional spacecraft, of operating in a 1-q environment?
- x What are the impacts to system design syptaged to traditional spacecraft, of operating in a power-rich environment?
- x What would the impacts be to system designs if the spacecraft were required to operate in a micro-g environment for a duration of up to 7 days?
- x What would be the impact of extenditing systems' use from 18 to 24 months?

Each one of these questions was considered by ystem leads who provided inputs for their respective systems. The following is a summary of these inputs.

Impacts of Operating in a 1-g Environment

The reason for exploring a 1-g artificial gravity nsit vehicle is its perceived physiological benefits. Despite the uncertainties regarding one stibular adaptation to a rotating spacecraft, it was felt by the medical operations community that 1-g artificial gravity environment could potentially solve some of the major hazapots sented in the Critical Path Roadmap (CPR) Baseline Document Some of the main hazards threaty be solved include bone loss, cardiovascular alterations, and socular alterations/atrophy.

It was also noted by many of the system leads that the 1-g operating environment would allow them to model their systems after Earth-bæsædogs. For example, the medical operations community would be able to use standard 1-g protocol for advanced cardiac life support, basic life support, and pharmacological productidrikewise, the Human Factors and Habitability (HF&H) community would be able to providensilar appliances and prepare food in the same fashion that would be used on Earth. A similar input by system leads was that the systems could largely be certified in Earth-based testbeds, exacerprotecting against the short duration microg contingency. This capabilityowld largely decrease costs of harde certification and cheaply improve system reliabilities.

Another point that was brought up by system leads was the fact that many of the systems may be able to be simplified when compared to those additional spacecraft. For example, the Thermal Control System (TCS) and Environmental Cohand Life Support System (ECLSS) may be able to use convective cooling rather than the than the system components. This would decrease system complexity and, most likely, improve system reliability. Similarly, fluid systems in general could be simplified. Those openine crew cabin would no longer require vacuum pumps to keep debris and fluition floating out into the habitat. Closed fluid systems in which phase separation is required would no longer need centrifugal extraction drums; instead, they would rely upon the induced gravity vector to perificial function. Eliminating hardware such as this would also contribute to increasing system reliabilities.

One of the main topics that the Advanced **Opes** Team wanted to understand with regard to operating in a 1-g environment was the negative impossible that on the habitat. At this level of system fidelity, no show-stoppers were identified, there are a few items worth noting. After examining the system leads' data, it was formed a few systems took a mass-hit in order to

Assessment of the Computer-Assisted Instrument

Rachel Caspar and Michael Penne

ways. Some of these improvements were implemented easily and manicareful development and implementation of new procedures. Thorough (NHSDA) to computer-assisted interviewing (CAI) offered an opportunity testing was needed to determine wherthese new procedures did, in fact, The conversion of the Nationalousehold Survey on Drug Abuse to improve the quality of the datalected in the NHSDA in a number of respondent. However, other improventes could only be realized through fested themselves in more completata-for example, the ability to eliminate situations where questionsravenadvertently left blank by the result in higher quality data.

the reporting needs of the NHSDA. The second revision dealt specifically with the way data on frequency of substance use over the past 12-month period was reported. This chapter also provides a review of several basic interviewers at the conclusion of the interview. Where possible, these measures are compared between the CAI and paper-and-pencil interview (PAPI) NHSDA instruments as a means of assessing the effect of the move are collected and the effect of these revisions on the quality of the data obtained in the 1999 NHSDA are described. The first of these revisions was collection of a large number of the data items that are considered critical to provided by the respondent. This methodology was incorporated into the In this chapter, two significant revisions to how key NHSDA data items the addition of a methodology for resing inconsistent or unusual answers responses, breakoff interviews, and thoservational data provided by the measures of data quality cluding rates of Doth Know and Refused to CAI on data quality.

photographs, videotapes, or statistics, and they allow ready comparisons over time the field survey data; they are better than photographs at depicting overall conditions facilitating decision making. They provide documentation in a manner not achieved by trenches (filled-in versus open triangle). Sketches help reviewers put the tabular data on oiled area and type in perspective, thereby The sketches are a very important component of

information, to develop cleanup priorities, identify site-specific or temporal constraints, and approve the proposed cleanup plan. detailed cleanup plan, including equipment and manpower needs, from these surveys needed by operations personnel and decision makers to formulate and approve shoreline Government agencies should be able to use the data, along with natural resource treatment plans. The objective of the surveys should always be kept in mind: to collect the information An operations manager should be able to use the data to develop a

the field team considers to be very important to the shoreline treatment decision making would best remove the oil without causing further environmental damage, or identify sensitive resources and impacts. The Comments section should highlight the information specific constraints that should be incorporated into the cleanup plan The Comments section is also where the field team makes treatment recommendations that The Comment section and sketch map will be important references for documentation

Abbreviated Shoreline Surveys

abbreviated shoreline survey at smaller or less complicated spills would consist of: observations and documentation of shoreline oiling conditions and cleanup progress. those that are relatively simple in oiling conditions. Yet, there is still the need for systematic Comprehensive surveys, as outlined above, are not always appropriate for smaller spills, or

- cleanup contractor, and responsible party to document shoreline oiling conditions Trained team(s) with members from State and Federal response agencies, the
- _ Consistent terminology for description of oiling conditions and of shoreline features
- and for which specific cleanup recommendations can be made Segmentation of the oiled areas into sections by shoreline type, degree of oiling, etc.,
- sensitive areas to avoid, and utilize as the basis for a work plan by cleanup crews. Field sketches to identify the area surveyed, record oil observations, identify
- Simplified forms for recording observations, making recommendations for cleanup, isting segment-specific restrictions, and generating summary statistics on shoreline

ACRONYMS AND ABBREVIATIONS

AISU Advanced International Studies Unit

Management Practices

CENE Center for Energy Efficiency

Country Study Russian Climate Change Country Study

 S_{2} Country Study

DIM Directed inspection and maintenance

DOE U.S. Department 0 fi Energy

EIA **Energy Information** Administration

EPA U.S. **Environmental Protection Agency**

FCCC United Nations Framework Convention on Climate Change

FSU Former Soviet Union

Gas STAR Program.S. Natural Gas STAR Program

Gaprom oint Stock Company "Gaprom"

GEF Global Environmental Facility

G G Greenhouse gas

Goscomecologia Russian State Committee for **Environmental** Protection

GRI U.S. Gas Research Institute

IEA International Energy Agency

SWI Industrial monitoring system

IPCC Intergovernmental Pane1 on Climate Change

oint implementation

SC oint Stock Company

臣 Lower Eplosive Limit

OECD Organiation for Economic Cooperation and Development

OHL Openended line

Rosgaifikatsiyaoint Stock Companysgaifikatsiya"

Second National Communication

TVA Toic Vapor Analyer SNC

UGIS Unified Gas Transmission System

USSEM Unified State System for Environmental Monitoring

bb1

Bscf **Billion** standard cubic feet

mdd parts per million

Teragram

Τg CO Carbon monoide

CO 2 Carbon dioide

2**5** ydrogen sulfides

SO₂ N O Nitrogen Sulfur dioide oides

Rosemarie Chinni

2714 Philadelphia Ave, Oley, PA 19547

February 8, 2008 10:06 PM

est-wide Energy Corridor DEIS Argonne National Laboratory 9700 S. Cass Ave., Building 900, Mail Stop 4 Argonne, IL 60439

Subject: est-wide Energy Corridor

Dear Argonne National Labs:

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Gazprom/Ruhrgas study provides results of estimates and extrapolation methods, but it contains no detailed description of component counts and no estimation of activity and measurements, they extrapolated results to the entire natural gas sector. The

Tyumentransgas is responsible for transporting gas from three gas production fields and is the largest of the Gazprom transmission companies in Russia. It operates over 27,000 km relatively new and has been upgraded recently. In addition, both stations use standard of pipelines with 33 compressor stations. Ruhrgas and Gazprom suggesKatzthnatand UpperKazym represent the range of typical compressor stations in Russia bleaguing is one of the oldest compressor stations in Russia (built from 1971-1977). Kappen is The Gazprom and Ruhrgas chose two compressor stations for measur trand UpperKazym, located in the yumen region and operated byumentransgas. equipment that accounts for 70 percent of all units in operation.

leaks from equipment and were identified and measured by flame ionization detectors. The Ruhrgas and Gazprom categorized emissions from compressor stations as intentional and study estimated intentional emissions by using technical data. Fugitive emissions included detailed description of components studied. The highest emissions appeared due to leaks measurements covered a large number of components but the study does not provide a fugitive emissions. Intentional emissions included emissions due to repair work, start up and depressurization of compressor units and incomplete combustion of methane. The from vents. The study does provide a description of measurement techniques.

In addition to compressor stations, Gazprom and Ruhrgas also measured emissions from patrol using methane detectors. In addition, approximately 630 kilometers of pipeline with more than 350 valves at the local gotransgas transmission company were examined by foot patrol using methane leak detectors. The study showed the largest leaks occur when pipeline sections are vented for repair purposes. pipelines. About 2000 kilometers of pipelineTatumentransgas were examined by air

oldest and newest processing plants for measurements, as well as one gas condensate plant. These measurements included valves, pipelines, buildings, and vents. It is important to note EPA, in accordance with the GRI approach, considers production and processing segments Gazprom and Ruhrgas checked for emissions at three out of eight processing facilities of representative, nor does it provide the number of wells measured. The study chose the the Yamburggazdobycharoduction company and representative group of wells and gathering lines. The study does not explain what wells and gathering lines are separately and provides estimates for each of the segments.

After conducting measurements at all segments, Ruhrgas and Gazprom extrapolated results emissions calculated in this way to installed compressor capacity of the stations, producing for the whole natural gas sector. The study extrapolated emissions for each compressor station by adding emissions from each component. Ruhrgas and Gazprom related the