
Shorting the Grid: The Hidden Fragility of Our Electric Grid

Type Book

Author Meredith Angwin

Abstract When rolling blackouts come to the electric grid, they will be old news to the grid insiders. Only the electricity customers will be surprised. Grid insiders know how fragile the grid is becoming. Unfortunately, they have no incentive to solve the problems because near-misses increase their profits. Meredith Angwin describes how closed meetings, arcane auction rules, and five-minute planning horizons will topple the reliability of our electric grid. Shorting the Grid shines light on our vulnerable grid. It also suggests actions that can support the grid that supports all of us.

Date October 19, 2020

Language English

Short Title Shorting the Grid

Library Catalog Amazon

Publisher Carnot Communications

of Pages 442

Date Added 2/19/2021, 9:12:00 AM

Modified 2/19/2021, 9:12:00 AM

Attachments

- o Amazon.com Link

The Grid: The Fraying Wires Between Americans and Our Energy Future

Type Book

Author Gretchen Bakke

Abstract A revelatory look at our national power grid--how it developed, its current flaws, and how it must be completely reimagined for our fast-approaching energy future. America's electrical grid, an engineering triumph of the twentieth century, is turning out to be a poor fit for the present. It's not just that the grid has grown old and is now in dire need of basic repair. Today, as we invest great hope in new energy sources--solar, wind, and other alternatives--the grid is what stands most firmly in the way of a brighter energy future. If we hope to realize this future, we need to reimagine the grid according to twenty-first-century values. It's a project which forces visionaries to work with bureaucrats, legislators with storm-flattened communities, moneymen with hippies, and the left with the right. And though it might not yet be obvious, this revolution is already well under way. Cultural anthropologist Gretchen Bakke unveils the many facets of America's

energy infrastructure, its most dynamic moments and its most stable ones, and its essential role in personal and national life. The grid, she argues, is an essentially American artifact, one which developed with us: a product of bold expansion, the occasional foolhardy vision, some genius technologies, and constant improvisation. Most of all, her focus is on how Americans are changing the grid right now, sometimes with gumption and big dreams and sometimes with legislation or the brandishing of guns. The Grid tells--entertainingly, perceptively--the story of what has been called "the largest machine in the world": its fascinating history, its problematic present, and its potential role in a brighter, cleaner future.

Date July 11, 2017

Language English

Short Title The Grid

Library Catalog Amazon

Publisher Bloomsbury USA

ISBN 978-1-63286-568-7

Edition Reprint edition

of Pages 384

Date Added 1/21/2020, 4:55:42 PM

Modified 1/21/2020, 4:55:42 PM

Attachments

- Amazon.com Link

Nuclear Imperatives and Public Trust: Dealing with Radioactive Waste

Type Book

Author Professor Luther J. Carter

Abstract Discusses the political and scientific issues surrounding the disposal of nuclear waste from nuclear power plants, analyzing the difficulties involved in protecting life from dangerously radioactive materials

Date September 1, 1987

Language English

Short Title Nuclear Imperatives and Public Trust

Library Catalog Amazon

Place Washington, D.C. : Baltimore, Md.

Publisher RFF Press

ISBN 978-0-915707-29-4

of Pages 473

Date Added 1/21/2020, 2:52:37 PM

Modified 1/21/2020, 2:52:37 PM

Attachments

- Amazon.com Link

Station Blackout: Inside the Fukushima Nuclear Disaster and Recovery

Type Book

Author Charles A. Casto

Abstract On March 11, 2011, fifty minutes after a magnitude 9.0 earthquake hit eastern Japan, a tsunami 45-feet high engulfed the nuclear power plant known as Fukushima Daiichi, knocking out electrical power and all the reactors' safety systems. Three reactor cores experienced meltdowns in the first three days, leading to an unimaginable nuclear disaster. The person the Tokyo Electric Power Company called for help was Dr. Chuck Casto. In Station Blackout, Chuck Casto, the foremost authority on responding to nuclear disasters, shares his first-hand account of how he led the collaborative team of Japanese and American experts that faced the challenges of Fukushima. A lifetime of working in the nuclear industry prepared him to manage an extreme crisis, lessons that apply to any crisis situation.

Date December 4, 2018

Language English

Short Title Station Blackout

Library Catalog Amazon

Publisher Radius Book Group

of Pages 254

Date Added 1/21/2020, 2:21:48 PM

Modified 1/21/2020, 3:02:30 PM

Attachments

- Amazon.com Link
- Amazon.com Link

How to Avoid a Climate Disaster: The Solutions We Have and the Breakthroughs We Need

Type Book

Author Bill Gates

Abstract In this urgent, authoritative book, Bill Gates sets out a wide-ranging, practical--and accessible--plan for how the world can get to zero greenhouse gas emissions in time to avoid a climate catastrophe. Bill Gates has spent a decade investigating the causes and effects of climate change. With the help of experts in the fields of physics, chemistry, biology, engineering, political science, and finance, he has focused on what must be done in order to stop the planet's slide to certain environmental disaster. In this book, he not only explains why we need to work toward net-zero emissions of greenhouse gases, but also details what we need to do to achieve this profoundly important goal. He gives us a clear-eyed description of the challenges we face. Drawing on his understanding of innovation and what it takes to get new ideas into the market, he describes the areas in which technology is already helping to reduce emissions, where and how the current technology can be made to function more effectively, where breakthrough technologies are needed, and who is working on these essential innovations. Finally, he lays out a concrete, practical plan for achieving the goal of zero emissions--suggesting not only policies that governments should adopt, but what we as individuals can do to keep our government, our employers, and ourselves accountable in this crucial enterprise. As Bill Gates makes clear, achieving zero emissions will not be simple or easy to do, but if we follow the plan he sets out here, it is a goal firmly within our reach.

Date February 16, 2021

Language English

Short Title How to Avoid a Climate Disaster

Library Catalog Amazon

Publisher Knopf

of Pages 256

Date Added 2/19/2021, 9:10:43 AM

Modified 2/19/2021, 9:10:43 AM

Attachments

- o Amazon.com Link

Full Body Burden: Growing Up in the Nuclear Shadow of Rocky Flats

Type Book

Author Kristen Iversen

Abstract Full Body Burden is a haunting work of narrative nonfiction about a young woman, Kristen Iversen, growing up in a small Colorado town close to Rocky Flats, a secret nuclear weapons plant once designated "the most contaminated site in America." It's the story of a childhood and adolescence in the shadow of the Cold War, in a landscape at once startlingly beautiful and--unknown to those who lived there--tainted with invisible yet deadly particles of plutonium. It's also

a book about the destructive power of secrets--both family and government. Her father's hidden liquor bottles, the strange cancers in children in the neighborhood, the truth about what was made at Rocky Flats (cleaning supplies, her mother guessed)--best not to inquire too deeply into any of it. But as Iversen grew older, she began to ask questions. She learned about the infamous 1969 Mother's Day fire, in which a few scraps of plutonium spontaneously ignited and--despite the desperate efforts of firefighters--came perilously close to a "criticality," the deadly blue flash that signals a nuclear chain reaction. Intense heat and radiation almost melted the roof, which nearly resulted in an explosion that would have had devastating consequences for the entire Denver metro area. Yet the only mention of the fire was on page 28 of the Rocky Mountain News, underneath a photo of the Pet of the Week. In her early thirties, Iversen even worked at Rocky Flats for a time, typing up memos in which accidents were always called "incidents." And as this memoir unfolds, it reveals itself as a brilliant work of investigative journalism--a detailed and shocking account of the government's sustained attempt to conceal the effects of the toxic and radioactive waste released by Rocky Flats, and of local residents' vain attempts to seek justice in court. Here, too, are vivid portraits of former Rocky Flats workers--from the healthy, who regard their work at the plant with pride and patriotism, to the ill or dying, who battle for compensation for cancers they got on the job. Based on extensive interviews, FBI and EPA documents, and class-action testimony, this taut, beautifully written book promises to have a very long half-life.

Date June 5, 2012

Language English

Short Title Full Body Burden

Library Catalog Amazon

Place New York

Publisher Crown

ISBN 978-0-307-95563-0

Edition 1 edition

of Pages 416

Date Added 1/21/2020, 2:04:49 PM

Modified 1/21/2020, 2:04:49 PM

Attachments

- Amazon.com Link

Confessions of a Rogue Nuclear Regulator

Type Book

Author Gregory B. Jaczko

Abstract A shocking exposé from the most powerful insider in nuclear regulation about how the nuclear energy industry endangers our lives—and why Congress does nothing to stop it. Gregory Jaczko had never heard of the Nuclear Regulatory Commission when he arrived in Washington like a modern-day Mr. Smith. But, thanks to the determination of a powerful senator, he would soon find himself at the agency's helm. A Birkenstocks-wearing physics PhD, Jaczko was unlike any chairman the agency had ever seen: he was driven by a passion for technology and a concern for public safety, with no ties to the industry and no agenda other than to ensure that his agency made the world a safer place. And so Jaczko witnessed what outsiders like him were never meant to see—an agency overpowered by the industry it was meant to regulate and a political system determined to keep it that way. After an emergency trip to Japan to help oversee the frantic response to the horrifying nuclear disaster at Fukushima in 2011, and witnessing the American nuclear industry's refusal to make the changes he considered necessary to prevent an equally catastrophic event from occurring here, Jaczko started saying aloud what no one else had dared. Confessions of a Rogue Nuclear Regulator is a wake-up call to the dangers of lobbying, the importance of governmental regulation, and the failures of congressional oversight. But it is also a classic tale of an idealist on a mission whose misadventures in Washington are astounding, absurd, and sometimes even funny—and Jaczko tells the story with humor, self-deprecation, and, yes, occasional bursts of outrage. Above all, Confessions of a Rogue Nuclear Regulator is a tale of confronting the truth about one of the most pressing public safety and environmental issues of our time: nuclear power will never be safe.

Date January 15, 2019

Language English

Library Catalog Amazon

Publisher Simon & Schuster

Edition Reprint edition

of Pages 209

Date Added 1/21/2020, 3:07:13 PM

Modified 1/21/2020, 3:07:13 PM

Attachments

- Amazon.com Link

Romancing the Atom: Nuclear Infatuation from the Radium Girls to Fukushima

Type Book

Author Robert Johnson

Abstract This book presents a compelling account of atomic development over the last century that demonstrates how humans have repeatedly chosen to ignore the associated impacts for the sake of technological, scientific, military, and economic expediency. In 1945, Albert Einstein said, "The release of atomic power has changed everything except our way of thinking ... the solution to this problem lies in the heart of mankind." This statement seems more valid today than ever. *Romancing the Atom: Nuclear Infatuation from the Radium Girls to Fukushima* presents compelling moments that clearly depict the folly and shortsightedness of our "atomic mindset" and shed light upon current issues of nuclear power, waste disposal, and weapons development. The book consists of ten nonfiction historical vignettes, including the women radium dial painters of the 1920s, the expulsion of the Bikini Island residents to create a massive "petri dish" for post-World War II bomb and radiation testing, the government-subsidized uranium rush of the 1950s and its effects on Native American communities, and the secret radioactive material development facilities in residential neighborhoods. In addition, the book includes original interviews of prominent historians, writers, and private citizens involved with these poignant stories. More information is available online at www.romancingtheatom.com. Draws from top-secret government and military documents from the history of atomic development, archival documents from the Library of Congress, and letters from Albert Einstein and other prominent scientists during the 1950s and 1960s. Presents chronological histories of events such as the displacement and relocation of the Bikini Islanders, uranium mines on Native American lands, and the cleanup of a secret uranium milling facility in a residential neighborhood in Oxford, Ohio. Contains various maps including radioactive cleanup sites in the United States and other parts of the world. Includes many photographs and illustrations that accompany the text. Provides a bibliography containing a significant collection of books, magazine articles, newspaper reports, movies, comics, government documents, and other related archival materials.

Date August 3, 2012

Language English

Short Title *Romancing the Atom*

Library Catalog Amazon

Publisher Praeger

Edition Illustrated edition

of Pages 217

Date Added 2/19/2021, 9:11:16 AM

Modified 2/19/2021, 9:11:16 AM

Attachments

- [Amazon.com Link](#)

Strange Glow: The Story of Radiation

Type Book

Author Timothy J. Jorgensen

Abstract The fascinating science and history of radiation More than ever before, radiation is a part of our modern daily lives. We own radiation-emitting phones, regularly get diagnostic x-rays, such as mammograms, and submit to full-body security scans at airports. We worry and debate about the proliferation of nuclear weapons and the safety of nuclear power plants. But how much do we really know about radiation? And what are its actual dangers? An accessible blend of narrative history and science, *Strange Glow* describes mankind's extraordinary, thorny relationship with radiation, including the hard-won lessons of how radiation helps and harms our health. Timothy Jorgensen explores how our knowledge of and experiences with radiation in the last century can lead us to smarter personal decisions about radiation exposures today. Jorgensen introduces key figures in the story of radiation—from Wilhelm Roentgen, the discoverer of x-rays, and pioneering radioactivity researchers Marie and Pierre Curie, to Thomas Edison and the victims of the recent Fukushima Daiichi nuclear power plant accident. Tracing the most important events in the evolution of radiation, Jorgensen explains exactly what radiation is, how it produces certain health consequences, and how we can protect ourselves from harm. He also considers a range of practical scenarios such as the risks of radon in our basements, radiation levels in the fish we eat, questions about cell-phone use, and radiation's link to cancer. Jorgensen empowers us to make informed choices while offering a clearer understanding of broader societal issues. Investigating radiation's benefits and risks, *Strange Glow* takes a remarkable look at how, for better or worse, radiation has transformed our society.

Date February 23, 2016

Language English

Short Title *Strange Glow*

Library Catalog Amazon

Publisher Princeton University Press

Edition Reprint edition

of Pages 495

Date Added 1/21/2020, 2:54:42 PM

Modified 1/21/2020, 2:54:42 PM

Attachments

- Amazon.com Link
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The Girls of Atomic City: The Untold Story of the Women Who Helped Win World War II

Type Book

Author Denise Kiernan

Abstract Now a New York Times Bestseller!THE GIRLS OF ATOMIC CITY AT THE HEIGHT OF WORLD WAR II, Oak Ridge, Tennessee, was home to 75,000 residents, consuming more electricity than New York City. But to most of the world, the town did not exist. Thousands of civilians--many of them young women from small towns across the South--were recruited to this secret city, enticed by solid wages and the promise of war-ending work. Kept very much in the dark, few would ever guess the true nature of the tasks they performed each day in the hulking factories in the middle of the Appalachian Mountains. That is, until the end of the war--when Oak Ridge's secret was revealed. Drawing on the voices of the women who lived it--women who are now in their eighties and nineties-- The Girls of Atomic City rescues a remarkable, forgotten chapter of American history from obscurity. Denise Kiernan captures the spirit of the times through these women: their pluck, their desire to contribute, and their enduring courage. Combining the grand-scale human drama of The Worst Hard Time with the intimate biography and often troubling science of The Immortal Life of Henrietta Lacks, The Girls of Atomic City is a lasting and important addition to our country's history.As heard on National Public Radio's Weekend Edition.One of Goodreads' Most Popular Books of March 2013.One of Amazon's Editors' Picks for Best Books of the Month (History)One of Amazon's Editors' Picks for Best Books of the Month (Nonfiction)One of Amazon's Big Spring Books (History)

Date March 5, 2013

Language English

Short Title The Girls of Atomic City

Library Catalog Amazon

Place New York, NY

Publisher Atria Books

ISBN 978-1-4516-1752-8

Edition Later prt. edition

of Pages 400

Date Added 1/21/2020, 2:00:21 PM

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- o Amazon.com Link

The Children

Type Book

Author Lucy Kirkwood

Abstract 'Retired people are like nuclear power stations. They like to live by the sea.' Two ageing nuclear scientists in an isolated cottage on the coast, as the world around them crumbles. Then an old friend arrives with a frightening request. Lucy Kirkwood's play *The Children* premiered at the Royal Court, London, in the Jerwood Theatre Downstairs on 17 November 2016, in a production directed by James Macdonald.

Date November 17, 2016

Language English

Library Catalog Amazon

Publisher Nick Hern Books

of Pages 96

Date Added 1/21/2020, 2:00:35 PM

Modified 1/21/2020, 2:00:35 PM

Attachments

- Amazon.com Link

Fukushima: The Story of a Nuclear Disaster

Type Book

Author David Lochbaum

Author Edwin Lyman

Author Susan Q. Stranahan

Abstract “A gripping, suspenseful page-turner” (Kirkus Reviews) with a “fast-paced, detailed narrative that moves like a thriller” (International Business Times), Fukushima teams two leading experts from the Union of Concerned Scientists, David Lochbaum and Edwin Lyman, with award-winning journalist Susan Q. Stranahan to give us the first definitive account of the 2011 disaster that led to the worst nuclear catastrophe since Chernobyl. Four years have passed since the day the world watched in horror as an earthquake large enough to shift the Earth’s axis by several inches sent a massive tsunami toward the Japanese coast and Fukushima Daiichi nuclear power plant, causing the reactors’ safety systems to fail and explosions to reduce concrete and steel buildings to rubble. Even as the consequences of the 2011 disaster continue to exact their terrible price on the people of Japan and on the world, Fukushima addresses the grim questions at the heart of the nuclear debate: could a similar catastrophe happen again, and—most

important of all—how can such a crisis be averted?

Date February 10, 2015
Language English
Short Title Fukushima
Library Catalog Amazon
Place New York
Publisher The New Press
ISBN 978-1-59558-908-8
Edition Reprint edition
of Pages 319
Date Added 1/21/2020, 2:08:04 PM
Modified 1/21/2020, 2:52:03 PM

Attachments

- Amazon.com Link
- Amazon.com Link

Uncertainty Underground: Yucca Mountain and the Nation's High-Level Nuclear Waste

Type Book
Editor Allison MacFarlane
Editor Rodney Ewing
Abstract Despite approval by Congress and the Bush administration and over seven billion dollars already spent, the Yucca Mountain, Nevada, site for disposal of highly radioactive spent nuclear fuel is not yet in operation. The reasons for the delay lie not only in citizen and activist opposition to the project but also in the numerous scientific and technical issues that remain unresolved. Although many scientists favor geologic disposal of high-level nuclear waste, there are substantial unknowns in projecting the performance of a site over the tens to hundreds of thousands of years that may be required by Environmental Protection Agency standards. *Uncertainty Underground* is the first effort to review the uncertainties in the analysis of the long-term performance of the proposed repository at Yucca Mountain. The book does not pass judgment on the suitability of the site but provides reliable science-based information to support open debate and inquiry into its safety. Experts from the geosciences, industry, and government review different aspects of the repository system, focusing on the uncertainties inherent in each. After an overview of the historical and regulatory context, the contributors investigate external factors (including climate change and volcanic activity) that could affect repository performance

and then turn to topics concerning the repository itself. These include hydrologic issues, the geological conditions with which the nuclear waste in the repository would interact, and the predicted behavior of the different kinds of waste and waste package materials. Uncertainty Underground succeeds in making these important technical issues understandable to a wide audience, including policymakers and the general public.

Date April 21, 2006

Language English

Short Title Uncertainty Underground

Library Catalog Amazon

Place Cambridge, Mass

Publisher The MIT Press

ISBN 978-0-262-63332-1

of Pages 456

Date Added 1/21/2020, 2:01:58 PM

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Attachments

- Amazon.com Link

Atomic Accidents: A History of Nuclear Meltdowns and Disasters: From the Ozark Mountains to Fukushima

Type Book

Author Jim Mahaffey

Abstract A “delightfully astute” and “entertaining” history of the mishaps and meltdowns that have marked the path of scientific progress (Kirkus Reviews, starred review). Radiation: What could go wrong? In short, plenty. From Marie Curie carrying around a vial of radium salt because she liked the pretty blue glow to the large-scale disasters at Chernobyl and Fukushima, dating back to the late nineteenth century, nuclear science has had a rich history of innovative exploration and discovery, coupled with mistakes, accidents, and downright disasters. In this lively book, long-time advocate of continued nuclear research and nuclear energy James Mahaffey looks at each incident in turn and analyzes what happened and why, often discovering where scientists went wrong when analyzing past meltdowns. Every incident, while taking its toll, has led to new understanding of the mighty atom—and the fascinating frontier of science that still holds both incredible risk and great promise.

Date February 4, 2014

Language English

Short Title Atomic Accidents
Library Catalog Amazon
Publisher Pegasus Books
of Pages 619
Date Added 1/21/2020, 2:06:25 PM
Modified 1/21/2020, 2:06:25 PM

Attachments

- Amazon.com Link

Idaho Falls: The Untold Story of America's First Nuclear Accident

Type Book
Author William McKeown
Abstract The little-known true story of a mysterious nuclear reactor disaster—years before Three Mile Island, Chernobyl, or Fukushima. Before the Three Mile Island incident or the Chernobyl disaster, the world's first nuclear reactor meltdown to claim lives happened on US soil. Chronicled here for the first time is the strange tale of SL-1, an experimental military reactor located in Idaho's Lost River Desert that exploded on the night of January 3, 1961, killing the three crewmembers on duty. Through exclusive interviews with the victims' families and friends, firsthand accounts from rescue workers and nuclear industry insiders, and extensive research into official documents, journalist William McKeown probes the many questions surrounding this devastating blast that have gone unanswered for decades. From reports of faulty design and mismanagement to incompetent personnel and even rumors of sabotage after a failed love affair, these plausible explanations raise startling new questions about whether the truth was deliberately suppressed to protect the nuclear energy industry.
Date April 1, 2003
Language English
Short Title Idaho Falls
Library Catalog Amazon
Publisher ECW Press
Edition Teacher ed. edition
of Pages 269
Date Added 1/21/2020, 2:22:06 PM
Modified 1/21/2020, 2:22:06 PM

Attachments

- Amazon.com Link

The Radium Girls: The Dark Story of America's Shining Women

Type Book

Author Kate Moore

Abstract A New York Times, USA Today, and Wall Street Journal Bestseller! Emma Watson's Our Shared Shelf Bookclub Selection - May/June 2018 "the glowing ghosts of the radium girls haunt us still."—NPR Books The incredible true story of the women who fought America's Undark dangerThe Curies' newly discovered element of radium makes gleaming headlines across the nation as the fresh face of beauty, and wonder drug of the medical community. From body lotion to tonic water, the popular new element shines bright in the otherwise dark years of the First World War. Meanwhile, hundreds of girls toil amidst the glowing dust of the radium-dial factories. The glittering chemical covers their bodies from head to toe; they light up the night like industrious fireflies. With such a coveted job, these "shining girls" are the luckiest alive — until they begin to fall mysteriously ill. But the factories that once offered golden opportunities are now ignoring all claims of the gruesome side effects, and the women's cries of corruption. And as the fatal poison of the radium takes hold, the brave shining girls find themselves embroiled in one of the biggest scandals of America's early 20th century, and in a groundbreaking battle for workers' rights that will echo for centuries to come. Written with a sparkling voice and breakneck pace, The Radium Girls fully illuminates the inspiring young women exposed to the "wonder" substance of radium, and their awe-inspiring strength in the face of almost impossible circumstances. Their courage and tenacity led to life-changing regulations, research into nuclear bombing, and ultimately saved hundreds of thousands of lives...

Date April 18, 2017

Language English

Short Title The Radium Girls

Library Catalog Amazon

Publisher Sourcebooks

Edition 1 edition

of Pages 405

Date Added 1/21/2020, 2:00:14 PM

Modified 1/21/2020, 2:00:14 PM

Attachments

- Amazon.com Link

The Swedish Nuclear Dilemma: Energy and the Environment

Type Book

Author William D. Nordhaus

Abstract Renowned economist William Nordhaus has developed many innovative approaches for analyzing complex environmental questions. He applies them to the possible phaseout of nuclear power in Sweden in *The Swedish Nuclear Dilemma: Energy and the Environment*. While making a major contribution to that debate, this book has value that extends well beyond the Swedish issue, to the careful and well-informed consideration of environmental and energy questions that industrialized nations and developing regions now face. It is essential for anyone interested in nuclear-power issues and climate change. The Swedish parliament has moved closer to eliminating nuclear energy, even while repeating commitments to reduce the greenhouse-gas emissions associated with fossil fuels. Nordhaus's Swedish Energy and Environmental Policy (SEEP) model quantifies the economic results of such a path. He analyzes the impact of factors such as deregulation of electricity generation, global climate-change policies, the decline of Sweden's economic growth, and the rethinking of its welfare state. He also sets the stage for more informed analysis of similarly difficult issues where economic and environmental goals clash.

Date June 17, 1997

Language English

Short Title The Swedish Nuclear Dilemma

Library Catalog Amazon

Place Washington, D.C

Publisher Routledge

ISBN 978-0-915707-84-3

of Pages 184

Date Added 1/21/2020, 2:02:05 PM

Modified 1/21/2020, 2:02:05 PM

Attachments

- o Amazon.com Link

Yellow Dirt: An American Story of a Poisoned Land and a People Betrayed

Type Book

Author Judy Pasternak

Abstract WINNER OF THE J. ANTHONY LUKAS WORK-IN-PROGRESS AWARD
Atop a craggy mesa in the northern reaches of the Navajo reservation lies what

was once a world-class uranium mine called Monument No. 2. Discovered in the 1940s—during the government's desperate press to build nuclear weapons—the mesa's tremendous lode would forever change the lives of the hundreds of Native Americans who labored there and of their families, including many who dwelled in the valley below for generations afterward. *Yellow Dirt* offers readers a window into a dark chapter of modern history that still reverberates today. From the 1940s into the early twenty-first century, the United States knowingly used and discarded an entire tribe for the sake of atomic bombs. Secretly, during the days of the Manhattan Project and then in a frenzy during the Cold War, the government bought up all the uranium that could be mined from the hundreds of rich deposits entombed under the sagebrush plains and sandstone cliffs. Despite warnings from physicians and scientists that long-term exposure could be harmful, even fatal, thousands of miners would work there unprotected. A second set of warnings emerged about the environmental impact. Yet even now, long after the uranium boom ended, and long after national security could be cited as a consideration, many residents are still surrounded by contaminated air, water, and soil. The radioactive "yellow dirt" has ended up in their drinking supplies, in their walls and floors, in their playgrounds, in their bread ovens, in their churches, and even in their garbage dumps. And they are still dying. Transporting readers into a little-known country-within-a-country, award-winning journalist Judy Pasternak gives rare voice to Navajo perceptions of the world, their own complicated involvement with uranium mining, and their political coming-of-age. Along the way, their fates intertwine with decisions made in Washington, D.C., in the Navajo capital of Window Rock, and in the Western border towns where swashbuckling mining men trained their sights on the fortunes they could wrest from tribal land, successfully pressuring the government into letting them do it their way. *Yellow Dirt* powerfully chronicles both a scandal of neglect and the Navajos' long fight for justice. Few had heard of this shameful legacy until Pasternak revealed it in a prize-winning Los Angeles Times series that galvanized a powerful congressman and a famous prosecutor to press for redress and repair of the grievous damage. In this expanded account, she provides gripping new details, weaving the personal and the political into a tale of betrayal, of willful negligence, and, ultimately, of reckoning.

Date September 21, 2010

Language English

Short Title *Yellow Dirt*

Library Catalog Amazon

Place New York, NY

Publisher Free Press

ISBN 978-1-4165-9482-6

Edition First Edition edition

of Pages 336

Date Added 1/21/2020, 2:20:19 PM

Modified 1/21/2020, 2:20:19 PM

Attachments

- [Amazon.com Link](#)

Dark Sun: The Making of the Hydrogen Bomb

Type Book

Author Richard Rhodes

Abstract Here, for the first time, in a brilliant, panoramic portrait by the Pulitzer Prize-winning author of *The Making of the Atomic Bomb*, is the definitive, often shocking story of the politics and the science behind the development of the hydrogen bomb and the birth of the Cold War. Based on secret files in the United States and the former Soviet Union, this monumental work of history discloses how and why the United States decided to create the bomb that would dominate world politics for more than forty years.

Date August 6, 1996

Language English

Short Title Dark Sun

Library Catalog Amazon

Place New York, N.Y

Publisher Simon & Schuster

ISBN 978-0-684-82414-7

Edition Reprint edition

of Pages 736

Date Added 1/21/2020, 2:08:27 PM

Modified 1/21/2020, 2:08:27 PM

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- [Amazon.com Link](#)

The Making of the Atomic Bomb

Type Book

Author Richard Rhodes

Abstract With a new Introduction by the author, the twenty-fifth anniversary edition of the Pulitzer Prize-winning epic about how the atomic bomb came to be. In rich, human, political, and scientific detail, here is the complete story of the nuclear bomb. Few great discoveries have evolved so swiftly or have been so misunderstood. From the theoretical discussions of nuclear energy to the bright

glare of Trinity there was a span of hardly more than twenty-five years. What began merely as an interesting speculative problem in physics grew into the Manhattan Project, and then into the Bomb with frightening rapidity, while scientists known only to their peers Szilard, Teller, Oppenheimer, Bohr, Meitner, Fermi, Lawrence, and von Neumann stepped from their ivory towers into the limelight. Richard Rhodes takes us on that journey step-by-step, minute by minute, and gives us the definitive story of man's most awesome discovery and invention. *The Making of the Atomic Bomb* is at once a narrative tour de force and a document as powerful as its subject.

Date August 1, 1995

Language English

Library Catalog Amazon

Place New York London

Publisher Simon & Schuster

ISBN 978-0-684-81378-3

Edition Reprint edition

of Pages 928

Date Added 1/21/2020, 2:00:28 PM

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Attachments

- Amazon.com Link

Plentiful Energy: The Story of the Integral Fast Reactor: The complex history of a simple reactor technology, with emphasis on its scientific bases for non-specialists

Type Book

Author Charles E. Till

Author Yoon Il Chang

Abstract The Integral Fast Reactor (IFR) is a fast reactor system developed at Argonne National Laboratory in the decade 1984 to 1994. The IFR project developed the technology for a complete system; the reactor, the entire fuel cycle and the waste management technologies were all included in the development program. The reactor concept had important features and characteristics that were completely new and fuel cycle and waste management technologies that were entirely new developments. The reactor is a “fast” reactor – that is, the chain reaction is maintained by “fast” neutrons with high energy – which produces its own fuel. The IFR reactor and associated fuel cycle is a closed system. Electrical power is generated, new fissile fuel is produced to replace the fuel burned, its used fuel is

processed for recycling by pyroprocessing – a new development – and waste is put in final form for disposal. All this is done on one self-sufficient site. The scale and duration of the project and its funding made it the largest nuclear energy R and D program of its day. Its purpose was the development of a long term massive new energy source, capable of meeting the nation's electrical energy needs in any amount, and for as long as it is needed, forever, if necessary. Safety, non-proliferation and waste toxicity properties were improved as well, these three the characteristics most commonly cited in opposition to nuclear power. Development proceeded from success to success. Most of the development had been done when the program was abruptly cancelled by the newly elected Clinton Administration. In his 1994 State of the Union address the president stated that "unnecessary programs in advanced reactor development will be terminated." The IFR was that program. This book gives the real story of the IFR, written by the two nuclear scientists who were most deeply involved in its conception, the development of its R and D program, and its management. Between the scientific and engineering papers and reports, and books on the IFR, and the non-technical and often impassioned dialogue that continues to this day on fast reactor technology, we felt there is room for a volume that, while accurate technically, is written in a manner accessible to the non-specialist and even to the non-technical reader who simply wants to know what this technology is.

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Short Title Plentiful Energy

Library Catalog Amazon

Place United States

Publisher CreateSpace Independent Publishing Platform

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The Road to Yucca Mountain: The Development of Radioactive Waste Policy in the United States

Type Book

Author J. Samuel Walker

Abstract In *The Road to Yucca Mountain*, J. Samuel Walker traces the U.S. government's tangled efforts to solve the technical and political problems associated with radioactive waste. From the Manhattan Project through the designation in 1987 of Yucca Mountain in Nevada as a high-level waste repository, Walker thoroughly investigates the approaches adopted by the U.S. Atomic Energy Commission (AEC). He explains the growing criticism of the AEC's waste programs, such as the AEC's embarrassing failure in its first serious effort to build a high-level waste repository in a Kansas salt mine. Clearly and accessibly, Walker explains the issues surrounding deep geological disposal and surface storage of high-level waste and spent reactor fuel. He analyzes the equally complex and divisive question of fuel "reprocessing." He weaves reliable research with fresh insights about nuclear science, geology, politics, and public administration, making this original and authoritative account an essential guide for understanding the continuing controversy over an illusive and emotional topic.

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Language English

Short Title *The Road to Yucca Mountain*

Library Catalog Amazon

Place Berkeley

Publisher University of California Press

ISBN 978-0-520-26045-0

Edition First edition

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Power Trip: The Story of Energy

Type Book

Author Michael E. Webber

Abstract A global tour of energy--the builder of human civilization and also its greatest threat. Energy is humanity's single most important resource. In fact, as energy expert Michael E. Webber argues in *Power Trip*, the story of how societies rise can be told largely as the story of how they manage energy sources through time. In 2019, as we face down growing demand for and accumulating environmental impacts from energy, we are at a crossroads and the stakes are high. But history shows us that energy's great value is that it allows societies to reinvent

themselves. Power Trip explores how energy has transformed societies of the past and offers wisdom for today's looming energy crisis. There is no magic bullet; energy advances always come with costs. Scientific innovation needs public support. Energy initiatives need to be tailored to individual societies. We must look for long-term solutions. Our current energy crisis is real, but it is solvable. We have the power.

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Library Catalog Amazon

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Publisher Basic Books

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Countdown to Zero Day: Stuxnet and the Launch of the World's First Digital Weapon

Type Book

Author Kim Zetter

Abstract Top cybersecurity journalist Kim Zetter tells the story behind the virus that sabotaged Iran's nuclear efforts and shows how its existence has ushered in a new age of warfare—one in which a digital attack can have the same destructive capability as a megaton bomb. In January 2010, inspectors with the International Atomic Energy Agency noticed that centrifuges at an Iranian uranium enrichment plant were failing at an unprecedented rate. The cause was a complete mystery—apparently as much to the technicians replacing the centrifuges as to the inspectors observing them. Then, five months later, a seemingly unrelated event occurred: A computer security firm in Belarus was called in to troubleshoot some computers in Iran that were crashing and rebooting repeatedly. At first, the firm's programmers believed the malicious code on the machines was a simple, routine piece of malware. But as they and other experts around the world investigated, they discovered a mysterious virus of unparalleled complexity. They had, they soon learned, stumbled upon the world's first digital weapon. For Stuxnet, as it came to be known, was unlike any other virus or worm built before: Rather than simply hijacking targeted

computers or stealing information from them, it escaped the digital realm to wreak actual, physical destruction on a nuclear facility. In these pages, Wired journalist Kim Zetter draws on her extensive sources and expertise to tell the story behind Stuxnet's planning, execution, and discovery, covering its genesis in the corridors of Bush's White House and its unleashing on systems in Iran—and telling the spectacular, unlikely tale of the security geeks who managed to unravel a sabotage campaign years in the making. But *Countdown to Zero Day* ranges far beyond Stuxnet itself. Here, Zetter shows us how digital warfare developed in the US. She takes us inside today's flourishing zero-day "grey markets," in which intelligence agencies and militaries pay huge sums for the malicious code they need to carry out infiltrations and attacks. She reveals just how vulnerable many of our own critical systems are to Stuxnet-like strikes, from nation-state adversaries and anonymous hackers alike—and shows us just what might happen should our infrastructure be targeted by such an attack. Propelled by Zetter's unique knowledge and access, and filled with eye-opening explanations of the technologies involved, *Countdown to Zero Day* is a comprehensive and prescient portrait of a world at the edge of a new kind of war.

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Publisher Crown

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Uranium: War, Energy, and the Rock That Shaped the World

Type Book

Author Tom Zoellner

Abstract The fascinating story of the most powerful source of energy the earth can yield. Uranium is a common element in the earth's crust and the only naturally occurring mineral with the power to end all life on the planet. After World War II, it reshaped the global order—whichever could master uranium could master the world. Marie Curie gave us hope that uranium would be a miracle panacea, but

the Manhattan Project gave us reason to believe that civilization would end with apocalypse. Slave labor camps in Africa and Eastern Europe were built around mine shafts and America would knowingly send more than six hundred uranium miners to their graves in the name of national security. Fortunes have been made from this yellow dirt; massive energy grids have been run from it. Fear of it panicked the American people into supporting a questionable war with Iraq and its specter threatens to create another conflict in Iran. Now, some are hoping it can help avoid a global warming catastrophe. In *Uranium*, Tom Zoellner takes readers around the globe in this intriguing look at the mineral that can sustain life or destroy it.

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