ECA Update: October 13, 2016

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What Do You Do With 34 Metric Tons Of Weapons-Grade Plutonium?

Popular Science

October 11, 2016

UPCOMING EVENTS

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Energy, Technology and Environmental Business Association's Business Opportunities Conference in Knoxville, TN

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When the United States broke off cease-fire talks with Russia over the war in Syria (after the Russian air force continued to bomb civilians in Aleppo), Russian President Vladimir Putin retaliated by suspending a nearly two-decades old arms agreement to get rid of his country's extra weapons-grade plutonium.

Signed in 2000, the Plutonium Management and Disposition Agreement stipulated that each country dispose of weapons-grade plutonium they deemed no longer required for defense purposes. Each country agreed to get rid of 34 metric tons of its excess stockpile.

Much of that excess is from the dismantlement of tens of thousands of Cold War nuclear weapons. Russia has stored some of it in the closed city of Seversk, in western Siberia--home to two of its former plutonium-producing nuclear reactors and, at one time, among the largest nuclear complexes on the planet. When the treaty was signed in 2000, the Russians were, according to The Economist, storing highly-enriched uranium and plutonium from dismantled nukes in 23,000 canisters at the site.

The U.S., meanwhile, has stored much of its plutonium at the Pantex Plant near Amarillo, Texas, which oversees the final assembly and disassembly of many of the country's nuclear warheads, until they can be disposed of. Originally, the plutonium was to be stored in a vault at Los Alamos National Laboratory in New Mexico before those plans were scrapped; Pantex was then repurposed as a long-term storage option.

DOE-EM Business Opportunity Forum in Knoxville, TN

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DOE-EM Site Specific Advisory Board Meeting in Paducha, KY

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DOE-EM Site Specific Advisory Board Meeting in Paducha, KY

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Neither Russia nor the U.S. has been quick to dispose of their excess plutonium. (It's extremely difficult to do). But with Russia now in essence putting its stockpile back on the table in its geopolitical game of Risk, many questions arise. Namely, what is this stuff? And how the heck do we get rid of it?

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World Energy Council notes key role of nuclear power

World Nuclear News

October 12, 2016

Unexpectedly high growth in the renewable energy market, in terms of investment, new capacity and high growth rates in developing countries have contributed to a change in the energy landscape, the latest World Energy Resources report released by the World Energy Council (WEC) today shows. However, it says nuclear energy "is increasingly seen as a means to add large scale baseload power generation while limiting the amount of greenhouse gas emissions".

The publication, updated every three years, "comprises a comprehensive and unique set of global energy resources data and related information," according to WEC. "This information allows energy decision-makers to better understand the reality of the energy sector and the resource developments."

The 24th edition of World Energy Resources - launched during the World Energy Congress in Istanbul, Turkey - covers 12 energy resources, together with carbon capture and storage (CCS) and energy storage.

The report shows total global renewable energy generating capacity has doubled over the past decade, from 1037 GWe in 2006 to 1985 GWe by the

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DOE-EM Industry Day and One-on-One Sessions for SRS M&O Contract Procurement in Augusta, GA

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DOE-EM Site Specific Advisory Board Meeting in Pojoaque, NM

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DOE-EM Community Day for SRS M&O Contract Procurement in Augusta, GA

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end of 2015. Over this period, wind energy capacity increased from 74 GWe to 432 GWe, while solar capacity rose from 6 GWe to 227 GWe. Hydropower capacity, meanwhile, grew from 893 GWe to 1209 GWe. Together, renewable resources now account for 23% of global power generation of 24,098 TWh.

However, the report notes, "The maintenance of the renewable subsidy programs, the outlook for continued decreases in the capital costs of these technologies and those of the storage technologies needed to compensate for intermittent generation, are questions that will have a significant bearing on the future of nuclear power."

In the chapter on nuclear energy - compiled with the assistance of the World Nuclear Association - the report notes that at the end of December 2015 global nuclear generating capacity stood at 390 GWe, representing about 11% of the world's electricity.

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US Air Force Carries Out Mock Nuclear Bomb Tests in Nevada Desert

Epoch Times

October 10, 2016

Two surveillance flight tests using mock B61-7 and B61-11 nuclear bombs were successfully carried out in the Nevada desert several weeks ago, according to a release last week.

The mock bombs did not carry any nuclear devices but instead recorded information on how the bombs performed during the test runs. The tests were jointly conducted at Tonopah Test Range by the U.S. Air Force's Global Strike Command and the National Nuclear Security Administration (NNSA).

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DOE-EM Site Specific Advisory Board Meeting in Sun Valley, ID

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DOE-LM 10th Aniversary of Fernald Cleanup: "Weapons to Wetlands: A Decade of Difference" in Hamilton, OH

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November 2016

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INVITATION ONLY

Two B-2A Spirit stealth bombers dropped the mock bombs to “allow scientists and engineers from national laboratories to assess their performance” and they “contain no nuclear materials and are not capable of nuclear yield,” the NNSA said in a news release on Oct. 6.

Engineers and scientists with the NNSA will then use data collected from the tests to conduct computer simulations to look at the weapon systems’ reliability to see if they are working as designed.

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The Manhattan Project’s Hanford Unit Celebrates NPS Centennial

InsideNPS

October 13, 2016

Just ten months old, the Manhattan Project NHP’s Hanford Unit celebrated the NPS Centennial on September 29- October 2 with three community events that introduced visitors to the Park through music and outdoor recreation, raised more than $10K for the Park, and forged ties with community and corporate partners. Thank you Washington State University, Mid-Columbia

2016 Intergovernmental Meeting with DOE in New Orleans, LA

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Mastersingers, REI, Bike Tri- Cities, and Visit Tri-Cities for being terrific partners with the MAPR Hanford Unit!

The DOE has been working to transfer custody and curation responsibility for its collection of Manhattan Project and Cold War Artifacts to educational partner Washington State University, Tri-Cities, to facilitate public education, research, and museum loans. The kickoff Centennial events celebrated the completion of this collection transfer with a free public display of the artifacts, and a fundraising reception at the University's Wine Science Center on September 28-29th.

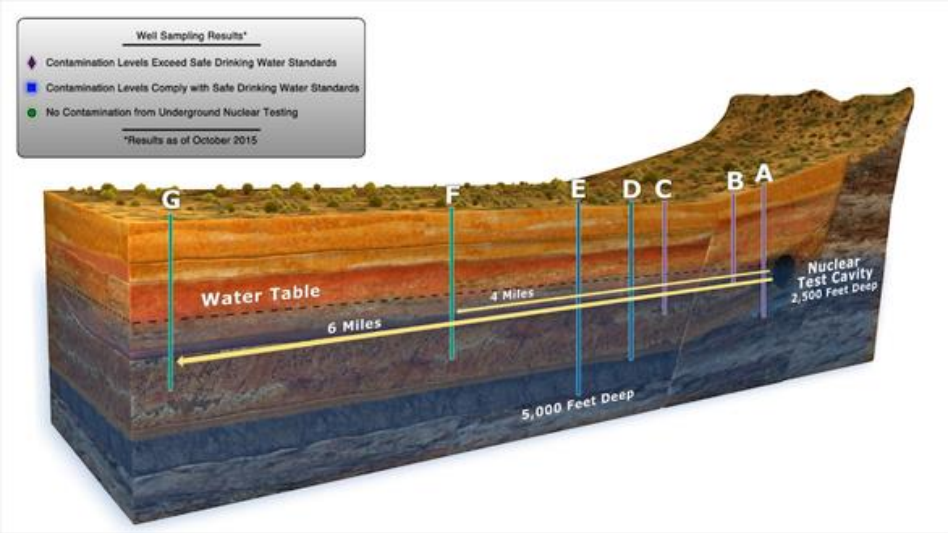
The celebration continued September 30th and October 2st with two choral concerts for 450 people by the Mid-Columbia Mastersingers inside the B Reactor. Friday evening guests enjoyed dinner and northwest wines under a lighted tent outside the reactor, followed by the concert inside the cavernous "front face room" of the B Reactor. Sunday's show was open to families with children. Billed as the first concert performed inside a decommissioned nuclear reactor, the Mastersingers filled the B Reactor with music – some written for the occasion – that reflected the complexity of the start of the atomic age, from spirited creation to sobering consequences and ultimately a call for peace. The television program "National Geographic Explorer" captured video and interviews at the Sunday concert for an upcoming program on the B Reactor and the Manhattan Project.

On Saturday, October 1st, corporate sponsor REI worked with Bike Tri-Cities to offer a 15-mile bike ride around the B Reactor. It marked the first time visitors were allowed to drive their private vehicles to the B Reactor, and the first-ever public bike ride on the Hanford Site. Riders made history as they pedaled along roads that had been installed for material production and later used for cleanup of the B Reactor area. With views for miles, abundant wildlife, and the desert in full fall bloom, participants were enthusiastic about making the ride an annual event at the Park and for looking for additional ways to incorporate recreation into MAPR offerings.

Animated NNSS Groundwater Video Now Online

DOE-EM

October 12, 2016



A new **animated video** has been released that provides an overview of how scientists today know that the public is protected from accessing groundwater affected by historic underground nuclear testing at the Nevada National Security Site (NNSS).

Development of this video stems from a Nevada Site Specific Advisory Board (NSSAB) recommendation to “develop a graphic representation that depicts the location of the underground tests, the direction groundwater is traveling, and current basic sampling results…that is easily accessible and understandable by the general public.”

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