

To: Jim Mehl, ERU Supervisor
From: Zack Clayton, Rad Coord
Subject: July Monthly Report
Date: August 6, 2009

Beans:

Training:	1
Drills	0
Meetings:	3
Technical Assistance:	2
Public Assistance:	1

Web Page Hits: There were ? RAD hits in July. Due to Server Move.

Coming Attractions:

Working Group	8/6
After Action	8/6
MMRS Group	8/20

Facility Updates:

Davis Besse Nuclear Power Station

Davis Besse operated for July at full power.

Perry Nuclear Power Plant

Perry NPP operated at full power until it reduced the reactor power to 37% July 23 to repair a small turbine electrical hydraulic leak on a turbine by-pass valve. The plant remained at a reduced power to conduct rod adjustments over the weekend. The reactor returned to 100% power on Monday, July 27.

Beaver Valley Power Station

Beaver Valley Unit I

Beaver Valley Unit I operated at full power for July.

Beaver Valley Unit II

Beaver Valley Unit II operated at full power for July.

Fermi II

Fermi operated at full power until July 31 when it reduced power due to a problem in a steam line.

Portsmouth Gaseous Diffusion Plant

The Portsmouth Gaseous Diffusion Site which is located at Piketon, Ohio (Pike County) declared an "Alert" the lower level of a two tier notification (Site Area is the higher notification) at 1715 (5:15 pm) on Thursday, July 16 due to a fire lasting greater than 15 minutes. The fire was in an abandoned cooling tower (bldg X-633D) that was scheduled to be demolished. The fire was not close to any safety related equipment. Offsite fire assistance was requested. Rosemont Fire Department from Scioto County responded to the site. The fire was extinguished at 1917 (7:17 pm) on Thursday, July 16 and the "Alert" was terminated at 2040 (8:40 pm) on July 16 after thermal imaging determined that no fire existed. A fire watch was established to monitor the area.

There was no release of hazardous materials or no potential for release of hazardous materials. There were no offsite consequences to include no sounding of sirens and no EAS messages.

Pike County was kept informed but did not activated their county EOC and did not request any state assistance.

Activity:

7/1 RAT training at Groveport to take advantage of John Wills last days of State service. John is a valuable resource of knowledge that will be missed after retirement.

7/2 URSB Working Group at Ohio EMA. Ironing out last minute details about the URSB meeting the following week.

7/7 Utility Radiological Safety Board meeting at Ohio EMA. Discussion of proposed Radiological Emergency Planning changes, a presentation of the NRC oversight of FENOC plants, and the plant reports. See the meeting minutes on the URSB website for more details.

7/21 IZRRAG meeting at Ohio EMA to review and correct procedures and Protective Action Guidance advisories.

Office Issues:

NRC Reports and Statistics:

July operating power levels

Date	BV1	BV2	DB	Fermi2	Perry	
1	100	100	100	100	100	
6	100	100	100	100	100	
13	100	100	100	100	100	
20	100	100	100	100	100	
24	100	100	100	100	37	MAIN TURBINE BYPASS
						VALVE HYDRAULIC FLUID LEAK
25	100	100	100	100	74	Increasing power
27	100	100	100	100	92	Power shaping
31	100	100	100	93	100	PROCEDURE LIMITED -
						MALFUNCTIONING STEAM LEAD

Fermi 2 - Approval of Plant Specific Emergency Core Cooling System (ECCS) Evaluation Model Reanalysis (TAC No. MD9169). The document is publicly available and will be accessible via the public web site Electronic Reading Room in the Agency Document Access and Management System (ADAMS), <http://www.nrc.gov/reading-rm/adams.html>
To access this document use ADAMS Accession Number:

ML091740255

PDF version of Information Notice 2009-11, Configuration Control Errors, dated July 7, 2009 (ML091240039), that has been posted to the NRR GCC Web, along with the URL for Web access to generic communications files on the NRC Homepage:

<http://www.nrc.gov/reading-rm/doc-collections/gen-comm/info-notices/2009/>.

Beaver Valley Power Station, Unit No. 1 - Summary of July 1, 2009, Conference Call with FirstEnergy. The document is publicly available and will be accessible via the public web site Electronic Reading Room in the Agency Document Access and Management System (ADAMS),

<http://www.nrc.gov/reading-rm/adams.html>

To access this document use Adams Accession No.

ML091870757

Davis-Besse Nuclear Power Station (DBNPS), Unit. No. 1 - Review of the Steam Generator Tube Inspections Performed During the 2008 Refueling Outage - The document is publicly available and will be accessible via the public web site Electronic Reading Room in the Agency Document Access and Management System (ADAMS), <http://www.nrc.gov/reading-rm/adams.html> To access this document use ADAMS Accession No. ML091671135

PDF version of Information Notice 2009-10, Transformer Failures – Recent Operating Experience, dated July 7, 2009 (ML090540218), that has been posted to the NRR GCC Web, along with the URL for Web access to generic communications files on the NRC Homepage:

<http://www.nrc.gov/reading-rm/doc-collections/gen-comm/info-notices/2009/>.

PDF version of RIS 2009-09, Use of Multiple Dosimetry and Compartment Factors in Determining Effective Dose Equivalent From External Radiation Exposures, dated

June 13, 2009, (ML082320040), that is ready to be posted to the NRR GCC Web, along with the URL for Web access to generic communications files on the NRC Homepage:

<http://www.nrc.gov/reading-rm/doc-collections/gen-comm/reg-issues/2009/>.

PDF version of RIS 2009-10, Communications Between The NRC And Reactor Licensees During Emergencies And Significant Incidents, dated June 19, 2009, (ML091480101), that is ready to be posted to the NRR GCC Web, along with the URL for Web access to generic communications files on the NRC Homepage:

<http://www.nrc.gov/reading-rm/doc-collections/gen-comm/reg-issues/2009/>.

Beaver Valley Power Station, Units 1 and 2; Davis-Besse Nuclear Power Station, Unit 1; and Perry Nuclear Power Plant, Unit 1 - Issuance of amendments re: Application for TS Change for Adoption of TSTF-511, Revision O, Eliminate working hour restrictions - The document is publicly available and will be accessible via the public web site Electronic

Reading Room in the Agency Document Access and Management System (ADAMS),

<http://www.nrc.gov/reading-rm/adams.html>

To access this document use ADAMS Accession no. ML091810397

PDF version of RIS 2009-11, Preparation and Scheduling of Operator Licensing Examinations, dated July 16, 2009, (ML091470309), that has been posted to the NRR GCC Web, along with the URL for Web access to generic communications files on the NRC Homepage:

<http://www.nrc.gov/reading-rm/doc-collections/gen-comm/reg-issues/2009/>.

Perry Nuclear Power Plant, Unit 1 - Correction to Facility Operating License -

The document is publicly available and will be accessible

via the public web site Electronic Reading Room in the Agency Document Access and Management System (ADAMS), <http://www.nrc.gov/reading-rm/adams.html> To access this document use ADAMS Accession no. ML092040585

Attached is an PDF version of Information Notice 2009-12, Exempt Distribution Licensing Requirements For Irradiated Gemstones, dated July 27, 2009 (ML091190196), that has been posted to the NRR GCC Web, along with the URL for Web access to generic communications files on the NRC Homepage: <http://www.nrc.gov/reading-rm/doc-collections/gen-comm/info-notices/2009/>.

Davis-Besse Nuclear Power Station, Unit No. 1 - Individual Plant Actions re: Pressurized-Water Reactor Owners Group Topical Report BAW-2374, Revision 2, "Risk-Informed Assessment of Once-Through Steam Generator Tube Thermal Loads Due to Breaks in Reactor Coolant System Upper Hot-Leg Large-Bore Piping" (TAC No. ME1798). The document is publicly available and will be accessible via the public web site Electronic Reading Room in the Agency Document Access and Management System (ADAMS), <http://www.nrc.gov/reading-rm/adams.html> To access this document use ADAMS Accession Number: ML092120411

General Information or Other	Event Number: 45171
Rep Org: OHIO BUREAU OF RADIATION PROTECTION Licensee: ACUREN INSPECTION, INC. Region: 3 City: DAYTON State: OH County:	Notification Date: 06/29/2009 Notification Time: 11:02 [ET] Event Date: 06/26/2009 Event Time: 11:30 [EDT]

License #: 03320990006 Agreement: Y Docket: NRC Notified By: STEPHEN JAMES HQ OPS Officer: DONG HWA PARK	Last Update Date: 06/29/2009
Emergency Class: NON EMERGENCY 10 CFR Section: AGREEMENT STATE	Person (Organization): ANN MARIE STONE (R3DO) ANGELA MCINTOSH (FSME) MONTE PHILLIPS (R3DO)

Event Text

AGREEMENT STATE REPORT - DIFFICULTY RETRIEVING RADIOGRAPHY SOURCE

The following report was received via facsimile:

"Licensee contacted Ohio Department of Health at approx. 3:45 PM on 6/26/09 to report an incident which occurred earlier that day involving the inability to retrieve a radiography source at a job site near Dayton, Ohio. The incident involved a QSA Global Model 880D camera with a 85 Ci Ir-192 source.

"At approximately 11:30 AM and after several unsuccessful attempts to retrieve the source, the radiography crew secured the area around the source and contacted a trained source recovery individual at their Cincinnati office for assistance. This person arrived at the job site at approx. 12:20 PM and assessed the situation.

"The recovery person determined that a flange had fallen on the guide tube during the previous shot, which crushed the guide tube and prevented source retrieval. The shot involved a 90-degree bend on a six-inch pipe and the flange was a scrap piece of material found on site that the crew had used to hold the guide tube in place during the shot. It was further determined that the set-up used by the crew for the shot was not very stable, which contributed to the falling of the flange onto the tube. The recovery person was able to retract the source into the camera at approximately 12:45 PM.

"The licensee determined that there was no exposure to the public or radiography crew as a result of this incident. The radiography crew was reminded to ensure the stability of future shot setups before exposing the source. The guide tube was replaced and work continued."

Ohio report number: OH090006

Fuel Cycle Facility	Event Number: 45188
Facility: PORTSMOUTH GASEOUS DIFFUSION PLANT RX Type: URANIUM ENRICHMENT FACILITY Comments: 2 DEMOCRACY CENTER 6903 ROCKLEDGE DRIVE BETHESDA, MD 20817 (301)564-3200 Region: 2 City: PIKETON State: OH County: PIKE License #: GDP-2 Agreement: Y Docket: 0707002 NRC Notified By: RON CRABTREE HQ OPS Officer: DONALD NORWOOD	Notification Date: 07/07/2009 Notification Time: 01:57 [ET] Event Date: 07/07/2009 Event Time: 00:54 [EDT] Last Update Date: 07/07/2009
Emergency Class: NON EMERGENCY 10 CFR Section: OTHER UNSPEC REQMNT	Person (Organization): RANDY MUSSER (R2DO) EARL EASTON (NMSS)

Event Text

4-HOUR REPORT DUE TO NOTIFICATION OF OHIO EPA
 BECAUSE OF BOILER OPACITY LIMIT BEING EXCEEDED

"At 2130 hours, 07/06/09, the PORTS Plant Shift
 Superintendent's (PSS) Office was notified of an operational

upset at the X-600 Steam Plant Facility due to a loss of power on the #3 (operating) Boiler. The operational upset resulted in three separate six minute periods, where the permissible opacity limit was exceeded, while power was being restored to the boiler. The PORTS PSS Office notified the Ohio Environmental Protection Agency (OEPA) of this incident, at 0054 hours, 07/07/09. This notification to another government agency is reportable to the NRC as a 4-hour Event, per the United States Enrichment Corporation (USEC) Nuclear Regulatory Event Reporting Procedure UE2-RA-RE1030, Appendix D, Section P (Miscellaneous) which states: 'USEC shall notify NRC of any event or situation, related to the health and safety of the public or on-site personnel, or protection of the environment, for which a news release is planned or notification to other government agencies has been or will be made. Such an event may include an on-site fatality or inadvertent release of radioactively contaminated materials'."

The licensee notified the Paducah NRC Resident Inspector.
* * * RETRACTION FROM ERIC SPAETH TO JOE O'HARA AT
1427 EDT ON 7/9/09 * *

"PORTS [Nuclear Regulatory Affairs] NRA has reviewed the basis for the above NRC event notification and recommends that event notification #45188 be retracted. The following provides the basis for this recommendation. NUREG-1022, Event Reporting Guidelines 10 CFR 50.72 and 50.73 was reviewed. In essence, the following sentence from the NUREG provides sufficient clarification of the reporting criteria to assess the applicability of the steam plant opacity exceedances: 'The purpose of this criterion is to ensure the NRC is made aware of issues that will cause heightened public or government concern related to the radiological health and safety of the public or on-site personnel or protection of the environment.' The significance of opacity exceedances as they might impact the public or on-site workers was discussed with environmental compliance personnel. It was concluded that beyond any regulatory issues, opacity exceedances of limited duration pose no significant health or environmental concerns. Based on the specifics of this event and the additional guidance provided by the NRC, more specifically that NRC is most concerned about events or situations that would cause heightened public or government concern, the opacity exceedances reported to the OEPA should not trigger a 4 hour NRC report."

The licensee notified the NRC Resident Inspector.

Notified R2DO(Nease) and NMSS EO(Tschiltz)

Fuel Cycle Facility	Event Number: 45208
Facility: PORTSMOUTH GASEOUS DIFFUSION PLANT RX Type: URANIUM ENRICHMENT FACILITY Comments: 2 DEMOCRACY CENTER 6903 ROCKLEDGE DRIVE BETHESDA, MD 20817 (301)564-3200 Region: 2 City: PIKETON State: OH County: PIKE License #: GDP-2 Agreement: Y Docket: 0707002 NRC Notified By: ERIC SPAETH HQ OPS Officer: MARK ABRAMOVITZ	Notification Date: 07/16/2009 Notification Time: 17:31 [ET] Event Date: 07/16/2009 Event Time: 17:15 [EDT] Last Update Date: 07/16/2009
Emergency Class: ALERT 10 CFR Section: 76.120(a)(4) - EMERGENCY DECLARED	Person (Organization): KATHLEEN O'DONOHUE (R2DO) VICTOR McCREE (DRA) BRIAN McDERMOTT (IRD) MIKE WEBER (NMSS) SAL MORRONI (DOE) JAROME KETTLES (DHS) GENE BANUPP (FEMA) JACQUELINE ARSENULT (EPA) DAVID TIMMONT (USDA) MATHEW NUNN (HHS)

Event Text

ALERT DECLARED DUE TO A FIRE IN AN ABANDONED COOLING
TOWER

An ALERT was declared at 1715 due to a fire lasting greater than 15 minutes. The fire is in an abandoned cooling tower (bldg X-633D) on the Department of Energy portion of the site. The fire is not in proximity to any safety related equipment. A request for assistance was made to Scioto and Adams counties Fire Departments.

At 1917, the licensee reported that the fire was out and the firemen were removing siding and looking for residual hot spots.

* * * UPDATE AT 2046 ON 7/16/2009 FROM TERRY SENSAWAY TO MARK ABRAMOVITZ * * *

The fire is out and the ALERT has been terminated. Recovery operations are in progress and a fire watch will be stationed throughout the night.

Notified R2DO (O'Donohue), R2 Deputy RA (McCree), NMSS (Weber), NMSS EO (Kotzalas), DHS (Kettles), FEMA (Biscoe), DOE (Parsons), HHS (Nunn), USDA (Timmons), and EPA (Threatt).

Hospital	Event Number: 44548
Rep Org: VA NATIONAL HEALTH PHYSICS PROGRAM Licensee: VA MEDICAL CENTER - CINCINNATI Region: 3 City: CINCINNATI State: OH County: License #: 03-23853-01VA Agreement: Y Docket: NRC Notified By: THOMAS HUSTON HQ OPS Officer: HOWIE CROUCH	Notification Date: 10/07/2008 Notification Time: 19:59 [ET] Event Date: 10/07/2008 Event Time: [EDT] Last Update Date: 07/23/2009
Emergency Class: NON EMERGENCY 10 CFR Section: 35.3045(a)(1) - DOSE <> PRESCRIBED DOSAGE	Person (Organization): JULIO LARA (R3) MARK DELLIGATTI (FSME)

Event Text

MEDICAL EVENTS DUE TO DOSE RECEIVED LESS THAN PRESCRIBED DOSE

"In response to medical events discovered at the VA Medical Center Philadelphia, which have been reported under Event Number 44219, reviews are ongoing of samples of patient charts from other VA

facilities with permanent prostate iodine-125 seed implant brachytherapy programs.

"As the result of these ongoing reviews, medical events were discovered on October 7, 2008, for 6 patients treated at the VA Medical Center in Cincinnati, Ohio.

"These 6 medical events involved seed distributions in the patients that resulted in D90 doses less than 80% of the prescribed doses. These circumstances were interpreted to meet the definition of a medical event under 10 CFR 35.3045.

"A 15-day written report on these 6 medical events will be submitted to NRC Region III. We have notified our NRC Project Manager, Cassandra Frazier (NRC Region III), of these medical events."

* * * UPDATE AT 1520 EDT ON 07/23/09 FROM ED LEIDHOLDT TO S. SANDIN * * *

"Following the notification of the NRC on October 7, 2008, of the six medical events described in Event Report No. 44548, the NHPP initiated a reactive inspection on October 16, 2008. As a result of this inspection and related clinical reviews, the NHPP is notifying NRC of one additional medical event at the Cincinnati VA Medical Center, for a total of 7 medical events at this facility. This event, also involving prostate brachytherapy with I-125 seeds, was discovered on July 22, 2009. Like the previous six medical events, this additional medical event involves a D90 dose less than 80% of the prescribed dose.

"We note that the D90 doses for all seven events were based upon CT scans performed one day after the implants, when the prostate is subject to edema from the procedure which often causes underestimation of the true D90. Furthermore, the prescribed doses were 160 gray, instead of the more common 145 gray. Thus, most if not all of these patients likely received clinically adequate dose distributions, despite the percent-wise slightly low D90s. Adverse biological effects to these patients are not expected.

"The facility has notified the patient.

"A written report on this additional medical event will be submitted to NRC Region III pursuant to 10 CFR 35.3045. We will notify the NRC Project Manager, Cassandra Frazier, of NRC Region III."

Notified R3DO (Hills) and FSME EO (Villamar).

A "Medical Event" may indicate potential problems in a medical facility's use of radioactive materials. It does not necessarily result in harm to the patient.

General Information or

Event Number:

Other	45213
Rep Org: OHIO BUREAU OF RADIATION PROTECTION Licensee: PETROCHEM INSPECTION SERVICES Region: 3 City: OREGON State: OH County: License #: 03320990001 Agreement: Y Docket: NRC Notified By: STEPHEN JAMES HQ OPS Officer: CHARLES TEAL	Notification Date: 07/21/2009 Notification Time: 08:57 [ET] Event Date: 06/19/2009 Event Time: [EDT] Last Update Date: 07/21/2009
Emergency Class: NON EMERGENCY 10 CFR Section: AGREEMENT STATE	Person (Organization): DAVID HILLS (R3DO) GLENDIA VILLAMAR (FSME)

Event Text

AGREEMENT STATE REPORT - DIFFICULTY RETRIEIVING RADIOGRAPHY SOURCE

The following report was received via email:

"On 6/19/09 at approximately 11:30 a.m., the licensee was unable to retract an industrial radiography source. [The] cause was due to a magnetic positioning device used during operations which fell onto the guide tube, crimping the tube and preventing the source to be retracted to the fully shielded position. [The] device was a QSA Model 660, S/N B2692, with a 91 Curie Ir-192 source, QSA S/N 53932B. No over exposure to personnel or [the] public was reported. [The] source was retrieved into [the] camera by trained personnel within approximately 1/2 hour. [The] licensee revised procedures and conducted refresher training to help prevent similar accidents in the future. ODH [Ohio Department of Health] conducted [an] inspection of [the] job site on 7/1/09. [The] licensee provided [a] written report within [the] 30-day required timeframe. [The] licensee originally thought that this event required a 30-day notice. [The] licensee has been instructed as to the need for 24-hour notification for these events."

Ohio report number: OH090007

Power Reactor Event Number: 45230
Facility: FERMI
Region: 3 State: MI
Unit: [2] [] []

RX Type: [2] GE-4
NRC Notified By: JIM KONRAD
HQ OPS Officer: JOHN KNOKE Notification Date: 07/27/2009
Notification Time: 10:39 [ET]
Event Date: 07/27/2009
Event Time: 09:35 [EDT]
Last Update Date: 07/27/2009
Emergency Class: NON EMERGENCY
10 CFR Section:
50.72(b)(3)(xiii) - LOSS COMM/ASMT/RESPONSE
Person (Organization):
ROBERT DALEY (R3DO)

Unit	SCRAM Code	RX CRIT	Initial PWR	Initial RX Mode	Current PWR	Current RX Mode
2	N	Y	100	Power Operation		100
				Power Operation		

Event Text
TECHNICAL SUPPORT CENTER TEMPORARILY UNAVAILABLE FOR USE

"On July 27, 2009, Fermi 2 is removing the Technical Support Center (TSC) from operation to facilitate maintenance activities for furniture and facility upgrade. During this work the facility will not be available for use. Fermi 2 is making this notification in accordance with 10 CFR 50.72(b)(3)(xiii). In the event TSC activation is necessary the Emergency Operations Facility (EOF) will be utilized. Activation and use of the EOF as a back up for the TSC is included in Fermi 2's Radiological Emergency Response Preparedness Plan. The Emergency Call Out System (ECOS) is designed to facilitate contacting TSC personnel to respond directly to the EOF in the event of an emergency. Fermi 2 will notify the NRC upon completion of this work which is expected to be July 31, 2009."

The licensee has notified the NRC Resident Inspector.

Alaska eyes small reactors (07/01/2009)

Some municipalities in Alaska are mulling plans to bring in small nuclear reactors in a bid to decrease energy prices.

Galena, a village on the Yukon River, has long been in talks with Toshiba about building such a power plant. Meanwhile, Fairbanks developer John Reeves has pitched an idea for a larger plant in his area that will be designed by New Mexico-based Hyperion Power Generation.

Both plants still need to apply for certification and then obtain a license to build and operate the plant, a process that can take years to complete, especially since both represent a new approach to nuclear. They involve small reactors that can be mass-produced, require little maintenance and are theoretically easier to obtain permits for and build.

A spokesman for the Nuclear Regulatory Commission said both ideas are unusual enough that the certification process will be long, although neither company has applied for design certification yet.

Alaska Gov. Sarah Palin (R) said she supports the concept. "Absolutely I can see nuclear playing a role in our energy agenda," Palin said. "Small-scale nuclear is an exciting prospect and fits with development of our more conventional sources of non-renewables" (Stefan Milkowski, *New York Times*, June 30).-- JK

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2 groups urge DOE to drop waste fee (07/08/2009)

Katherine Ling, E&E reporter

Groups representing the nuclear industry and utility regulators urged Energy Secretary Steven Chu in separate letters today to cancel fees that fund federal management of nuclear waste, saying the funds were not necessary since the administration is planning to terminate the waste depository plan.

The National Association of Regulatory Utility Commissioners said in its **letter** that President Obama's announced intention of terminating the Yucca Mountain, Nev., dump means "there is no clearly defined program for disposal of spent nuclear fuel and high-level radioactive waste."

"Therefore," NARUC says, "there is no basis to assess the adequacy of fees that continue to be paid into the Nuclear Waste Fund."

The White House provided \$197 million in its 2010 budget request -- \$98 million for the management of commercial spent nuclear fuel and \$98 million for defense waste -- the minimum level for continuing the Nuclear Regulatory Commission's review of the DOE repository license application and assembling a "blue-ribbon panel" to find an alternative waste solution.

Meanwhile, the Nuclear Energy Institute wrote in a **letter** that the "Obama administration's intent to devise a new nuclear fuel management strategy does not relieve DOE of its obligation to comply with the mandates of the Nuclear Waste Policy Act -- one of which is to adjust the Nuclear Waste Fund fee when warranted."

The Nuclear Waste Fund's current annual interest is more than \$1 billion, and the fund has about \$24 billion, all of which is more than enough to cover the program's current expenditures, NEI and NARUC said.

Under the nuclear waste legislation, the secretary of Energy must review the adequacy of the nuclear waste fund fee every year. The last fee assessment was made almost a year ago, in which DOE found the fee, a tenth of a cent per kilowatt-hour on nuclear energy, adequate (*E&ENews PM*, Aug. 5, 2008).

Canceling fees to the Nuclear Waste Fund would be complicated, as Congress currently incorporates the fund's revenues as a part of the general fund that offsets the nation's deficit.

[Click here](#) to view the NARUC letter.

[Click here](#) to view the NEI letter.

Storing waste above ground best temporary solution -- report (07/10/2009)

With the Obama administration's rejection of Yucca Mountain, storing nuclear waste above ground at atomic power plants for up to the next 60 years may be the best temporary solution for spent radioactive fuel, according to a report published in *Science*.

Such waste could be stored in specialized warehouses at nuclear power plants even after the plants have ceased operation. The fuel would be kept in heavily shielded containers called dry casks, said the paper's authors, Rodney Ewing of the University of Michigan and Princeton University's Frank von Hippel.

Many plants in the United States already store their waste in such casks. The U.S. has about 60,000 tons of radioactive waste from its power plants and weapons and produces an additional 2,000 tons each year. The waste can remain dangerously radioactive for thousands of years.

"Most people don't realize what a difficult situation we're in," Ewing said in a podcast. "It looks like the United States is starting over with its nuclear waste management policy."

Such a reboot became necessary after President Barack Obama rejected a plan to store all of the nation's long-lived nuclear waste at the Yucca Mountain repository in Nevada. The decades-long project reportedly cost \$9 billion.

Underground storage remains a likely option, but several regional repositories, overseen by U.S. EPA, could be developed, the authors said (Jeremy van Loon, [Bloomberg](#), July 10). -- **PV**

Demise of repository creates many budgetary uncertainties (07/13/2009)

Katherine Ling, E&E reporter

The House Budget Committee on Thursday will examine the future funding for U.S. nuclear waste management now that President Obama has announced his intention to cancel the nuclear waste repository at Yucca Mountain, Nev.

Ending Yucca Mountain is not only a tricky political proposition -- as Republicans say it will stymie new nuclear construction -- but it also poses a budgetary dilemma.

The repository is currently financed through the nuclear waste fund, now holds almost \$30 billion including interest and is fed by a one-tenth of one-cent-per-kilowatt-hour fee paid by consumers of nuclear energy. Utilities contribute about \$750 million per year to the fund and it accrues about \$1 billion in interest per year. But under the law, the funds may only be used on construction related to the repository, so the Department of Energy has only spent about \$7 billion from the fund so far. DOE has spent a total of \$13.8 billion on the site since 1983.

Congress includes the revenue from the nuclear waste fees as part of the General Treasury Fund. So any money spent from the funds is considered discretionary and must be appropriated, but income from the fees is recorded on the mandatory side of the budget. For instance, the fund provided \$8 billion through 2006 in government spending that did not contribute to the deficit, Kim Cawley, chief of the Natural and Physical Resources Cost Estimate Unit at the Congressional Budget Office, told the Budget Committee in 2007.

Utilities and regulators are insisting that since DOE has no intention to continue with Yucca Mountain and has no alternate plans, there should be no fee on nuclear power (*E&ENews PM*, July 8).

The nation's \$11 trillion deficit also factors into the debate. Regardless of what Obama's blue ribbon panel decides as an alternative to Yucca Mountain or even if the site beats the odds and is completed, the government still faces the prospect of balancing the budget once DOE begins to withdraw the nuclear waste fund revenues to pay for the final solution for nuclear waste.

There are also numerous lawsuits and liabilities stemming from Yucca's delay or cancellation. The courts have already found DOE partially in breach of contract for not

beginning to take nuclear waste from utility sites in 1998 as they had agreed to. The federal government has paid about \$300 million to utilities in compensation costs for not taking care of the waste and has appealed about \$400 million other judgments. In addition, there are about 40 lawsuits that have not gone to trial yet. The compensation is taken from a judgment fund and not out of the nuclear waste fund.

"Because judicial claims for damages are made retrospectively, many more cases can be expected in the coming decades as utilities seek to recover their ongoing costs for storing nuclear waste long after they expected it to be removed to a permanent disposal site," Cawley said.

The repository is also slated to hold high-level waste left over from the Cold War, and the government may be liable for compensation costs from states currently hosting the defense waste as well. The Treasury Department has estimated it will cost DOE about \$300 billion to clean up and monitor several other government sites that are contaminated with hazardous and radioactive materials.

Schedule: The hearing is Thursday, July 16, at 10 a.m. in 210 Cannon.

Witnesses: Christopher Kouts, acting director, Office of Civilian Radioactive Waste Management, DOE; and Kim Cawley, chief of the Natural and Physical Resources Cost Estimates Unit, Congressional Budget Office.

DOJ seeks liability language in post-Yucca plan *(07/16/2009)*

Ben Geman, E&E senior reporter

The Justice Department is urging Congress to ensure that U.S. nuclear policy includes a way to address ongoing, costly lawsuits over the government's failure to take high-level waste off utilities' hands.

"Any legislative solution to these issues should also consider provisions to address the government's outstanding liability," Michael Hertz, a deputy assistant attorney general, told the House Budget Committee today.

The government, under the Nuclear Waste Policy Act, had pledged in the early 1980s to start accepting spent

nuclear fuel by 1998 in return for utility payments into the Nuclear Waste Fund. Federal officials also planned to build a high-level waste repository inside Nevada's Yucca Mountain.

But the controversial Yucca plan faced opposition and delays, prompting utility lawsuits that date back more than a decade. Now the Obama administration has abandoned Yucca, and Energy Secretary Steven Chu plans to assemble a "blue ribbon" panel to seek an alternative waste solution.

The panel's work could provide the basis for changing the "statutory framework" governing obligations to utilities, Hertz said at a hearing on nuclear-waste management budgeting. "A legislative solution would be preferable to the current drain on the resources of the courts and the Department of Justice caused by the seemingly endless litigation," he said.

Kim Cawley of the Congressional Budget Office said a change in law would be needed to authorize permanent Energy Department waste disposal somewhere other than Yucca Mountain.

Utilities have filed 71 lawsuits in the U.S. Court of Federal Claims, Hertz said, of which 51 remain pending before that court or the U.S. Court of Appeals for the Federal Circuit. Ten have been settled, six withdrawn, and four fully litigated.

The government has paid \$565 million thus far. Of the pending cases, the trial court has entered judgment in 13, of which six are currently before the trial court on remand and seven have pending appeals, he said.

Combining the judgments and settlements, the government's current liability is \$1.3 billion.

Hertz said the costs of the litigation are "significant," noting \$24 million thus far in attorney costs, \$91 million in expert funding and \$39 million in litigation support costs.

The comments also come amid increasing estimates of the overall projected federal liability, which is currently estimated to be \$12.3 billion, if waste acceptance were to begin in 2020. Cawley said it is not clear how the decision to abandon the Yucca project will affect the government's liabilities.

The Obama administration's Yucca Mountain decision continued to come under fire at today's hearing.

"Abandoning Yucca Mountain is not a solution to nuclear waste disposal," said Michael Simpson (R-Idaho), who said it could add to further delays that worsen the

government's "bleak fiscal outlook" and also hinder efforts to build new reactors.

Simpson and other critics pressed Christopher Kouts, DOE's acting director of the Office of Civilian Radioactive Waste Management, on President Obama's decision to look away from Yucca Mountain.

"It seems like a political decision rather than a decision based on science," Simpson said.

Kouts said the decision was made at the DOE secretary level. He also noted that waste is being stored safely at reactor sites.

The White House budget request -- which ends funding for the Yucca Mountain project, although it continues funding for its licensing before the Nuclear Regulatory Commission -- says the nation needs a "better solution."

Senate Majority Leader Harry Reid (D-Nev.) is a top opponent of the Yucca plan. Rep. Shelley Berkley (D-Nev.), another opponent of Yucca Mountain, said abandoning the project would actually help settle liability issues.

"Ending Yucca Mountain now will allow us to begin addressing this liability merry-go-round, including the settlement of existing breach-of-contract suits," she said.

Senate panel 'expects' DOE to suspend waste fee payments (07/21/2009)

Katherine Ling, E&E reporter

The Senate Appropriations Committee "expects" the Energy Department to suspend a fee the nuclear industry pays to the federal government to remove and permanently store nuclear waste, according to report language it approved earlier this month.

As requested, the fiscal 2010 Energy and Water Development spending bill (**S. 1436**) includes \$198.6 million for the nuclear waste repository at Yucca Mountain, Nev., with the stated intention to eventually terminate the project and to create a "blue ribbon" panel to analyze alternatives to the site.

Because the current Nuclear Waste Fund is more than adequate to cover the request, the **report** accompanying the bill states the panel's belief the fund will go dormant.

"Given the administration's decision to terminate the Yucca Mountain repository program while developing disposal alternatives, the committee expects the

Secretary of Energy to suspend collection of payments to the Nuclear Waste Fund," the report states.

The Nuclear Waste Fund has an unspent balance of \$22 billion and annual interest of about \$1 billion, according to the report. That "is more than adequate to cover planned activities proposed in this budget request" and additional funds were unnecessary as the administration had given no future "specific strategy" to use them, the report states.

Under the Nuclear Waste Policy Act, DOE must review the adequacy of the nuclear waste fund fee every year. DOE performed the last fee assessment in August 2008 and found the fee of a tenth of a cent per kilowatt-hour on nuclear energy, adequate. DOE declined to comment on this story.

The Appropriations Committee approved the bill July 9. The original version of the report language provided immediately after the committee approved the bill did not include the nuclear waste fee provision (*E&E Daily*, July 10). Similar report language did not accompany the House version of the Energy and Water Development Appropriations bill, which the House approved last week. The Nuclear Energy Institute and the National Association of Regulatory Utility Commissioners each sent letters to DOE a day before the Senate committee passed the spending bill recommending that the nuclear waste fee -- which generates about \$750 million per year -- be suspended (*E&ENews PM*, July 8).

"The industry appreciates the committee's support for its request that the secretary of Energy suspend collection of the nuclear waste fee," NEI said in a statement Friday. Kim Cawley, chief of natural and physical resources of the Congressional Budget Office's Cost Estimates Unit, told the House Budget Committee last week that CBO could not estimate what the fee should be. "In light of the administration's policy to terminate the Yucca Mountain project and pursue an alternative means of waste disposal, there is no current basis to judge the adequacy of the fee to cover future costs because the method of disposal and its lifecycle costs are unknown," he said. Cawley and other witnesses added that canceling Yucca Mountain created other government costs including liability for not taking used fuel from nuclear power plants in 1998, as required in exchange for the nuclear waste fee (*E&ENews PM* July 16).

Suspending payments of the nuclear waste fund could also complicate general budget matters as the Nuclear

Waste Fund is included as a part of the General Treasury Fund. The fund provided \$8 billion through 2006 in government spending that did not contribute to the deficit, according to CBO.

[Click here](#) to read the report.

No rush for permanent waste site -- NRC chairman *(07/23/2009)*

Finding a permanent storage location for spent nuclear fuel to succeed the failed Yucca Mountain project isn't "an urgent problem," said Gregory Jaczko, the head of the Nuclear Regulatory Commission.

"It is an issue we need to be aware of and be diligent about, but it's not a crisis by any means," Jaczko added. Earlier this year, the Obama administration signaled in its budget that it would abandon plans to store the nation's high-level nuclear waste in Yucca Mountain, Nev. Senate Majority Leader Harry Reid (D-Nev.), Jaczko's former boss, had sought the demise of the \$96 billion project. Energy Secretary Steven Chu has proposed a panel to examine the issue of nuclear waste and suggest potential solutions. In the meantime, the NRC has delayed issuing a regulation that will extend the time span nuclear power plants are allowed to keep spent fuel on-site.

The existing rule hinges on expectations that fuel could be sent to Yucca Mountain by 2025. The updated regulation will call for waste to be stored at nuclear power plants for 50 to 60 years after the reactor has been retired (Tina Seeley, [Bloomberg](#), July 23). -- **PV**

Administration appears close to filling NRC vacancies *(07/24/2009)*

Peter Behr, E&E reporter

The Obama administration is close to a decision on filling two vacancies on the Nuclear Regulatory Commission, according to industry and congressional sources. The appointments would come at a pivotal time for the industry's hopes of a revival, as NRC weighs operating license applications for a handful of new reactors and a review of its waste fuel policy.

The administration is believed to have settled on former

Energy Department official William Magwood and Massachusetts Institute of Technology professor George Apostolakis as the nominees. Both would be welcomed by the industry, officials said.

NRC is headed by chairman Gregory Jaczko, chosen in May for the position by President Obama, and two Republican commissioners, former chairman Dale Klein and Kristine Svinicki. Apostolakis could not be reached for comment yesterday. Magwood said, "I've heard the same rumors," but declined to comment further.

The two NRC appointments "are very important," said Christopher Guith, vice president for policy at the U.S. Chamber of Commerce's Institute for 21st Century Energy. "A number of utility boards are looking to that as a possible sign of where things are going in the future," he said. "There has been great apprehension [that] the wrong appointments could really set a bad tone."

The industry's concerns have focused on Jaczko, former science adviser to Senate Majority Leader Harry Reid (D-Nev.). Reid has led a battle to kill the proposed nuclear waste repository at Yucca Mountain in his state.

Apostolakis, a professor at MIT's Department of Nuclear Science and Engineering, is a member and former chairman of NRC's Advisory Committee on Reactor Safeguards and an expert in complex risk and reliability analysis. "He knows the industry. He knows the technology," said Jay Silberg, an attorney handling nuclear energy issues with Pillsbury Winthrop Shaw Pittman LLP. "He'd be someone the industry would be comfortable with."

Before leaving the Energy Department in 2005 to enter consulting, Magwood had been director of nuclear energy, science and technology, the federal government's senior nuclear technology official. Silberg said he has known Magwood for decades: "He would be very good." Silberg said he has heard reports that the two were under consideration for NRC but did not know whether they had been finally selected. Several sources said that the two men are at the top of the administration's list.

Multibillion-dollar issues await

The outlook for a potential revival of nuclear reactor construction in the United States rests on several key decisions that are pending from NRC and the Energy Department.

NRC is currently reviewing three new and one modified reactor designs, and has received applications for operating licenses for 26 new reactors. These applications

include four projects that have been chosen by the Department of Energy as candidates for a total of \$18.5 billion in federal construction loan guarantees. The guarantees are essential to funding the projects, the industry says.

NRC is also reviewing what it calls its Waste Confidence Policy, a finding that spent fuel and other high-level radioactive reactor wastes can be "permanently disposed of safely," in the words of a court mandate. That decision has been complicated by Obama's decision to terminate federal funding for the Yucca Mountain site, an industry official said.

Energy Secretary Steven Chu plans to appoint a blue-ribbon committee to review nuclear waste policy, presumably including options for recycling spent fuel. Guith said the makeup of this panel will be another test of the administration's intentions concerning nuclear power's future.

Economic question marks loom large

The nuclear industry's future now awaits NRC decisions on new reactor designs and licensing. If the new reactor designs and operating licenses are approved and the plants go forward within the next few years, they could be online in 2016 or 2017, industry planners say. These new plants would provide a vital benchmark on whether nuclear power can be a competitive, affordable option in reducing the utility industry's carbon dioxide emissions. Nuclear power opponents and skeptics said it is the fast-rising cost estimates for new projects, not regulatory hurdles, that pose the greatest threat to a nuclear power revival. "The NRC can't save the industry from itself on the economic side," said Joseph Romm, a senior fellow at the Center for American Progress Action Fund and a former Energy Department official.

But new nuclear plants cannot be built -- and indeed, construction costs cannot be pinned down -- until NRC completes certification of at least two new designs, experts say. While the design review has been under way for several years, no new designs have been approved, and Jaczko said the commission's work has been hampered by continuing modifications to designs.

A critical factor in the cost of plants will be the length of time required for construction once a project has been approved. NRC's new policy for reviewing nuclear plant proposals is meant to expedite the process, and the commission's ability to do so without compromising on the safety of plant design and operation will be a central

issue in nuclear power's future, experts agree. NRC commissioner Svinicki referred to that balancing act this spring, telling an energy conference, "The nuclear industry remains ... just one accident away from retrenchment."

Shortage of radioactive drug intensifies with two reactors closed for repairs (07/24/2009)

Experts worry about the ramifications from the temporary closure of two nuclear reactors responsible for producing a radioactive isotope used during diagnostic tests for heart disease and cancer.

Doctors in the United States use technetium-99m in more than 40,000 medical procedures per day.

A reactor in Ontario, Canada, which produces the majority of this drug, has been sidelined since May as a result of safety concerns and isn't expected to open until next year at the earliest.

The other major supplier, a Dutch reactor, closed last week for at least a month.

"This is a huge hit," said Dr. Michael M. Graham, president of the Society of Nuclear Medicine and a professor of radiology at the University of Iowa.

Earlier this week, Reps. Ed Markey (D-Mass.) and Fred Upton (R-Mich.) introduced legislation authorizing \$163 million over five years to establish new production facilities in the United States (Matthew L. Wald, *New York Times*, July 24). -- **JK**
