

To: Jim Mehl, ERU Supervisor  
From: Zack Clayton, Rad Coord  
Subject: October Monthly Report  
Date: November 17, 2009

---

Beans:

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

Web Page Hits: DAS has temporarily taken the web statistics package offline.

Coming Attractions:

RAT Training 11/5  
IZRRAG FTC 11/12  
WG 12/11

Facility Updates:

**Davis Besse Nuclear Power Station**

Davis Besse operated for October at full power.

**Perry Nuclear Power Plant**

Perry NPP was in full power operation until October 15 when power was reduced. The plant went to cold shutdown on October 16 for unscheduled maintenance.

At about 4:00 pm, October 9 Perry was unloading a backhoe which spilled 3 to 5 gallons of hydraulic fluid in the warehousing area of the plant. The spill was on approximately 2500 sq ft of gravel and asphalt. The spill also drained into two storm drains. The backhoe was moved inside a building and absorbent material was placed on the spill. Clean Harbors Inc. (CHI) will assist with clean-up. USEPA, Ohio EPA, Perry Township Fire, and Lake County LEPC were notified. Perry informed the NRC as required within 24 hours of the spill. See event number 45423 for October 13.

Perry Nuclear Power Plant shutdown/entered a forced outage at noon Thursday, Oct. 15, due to problems with the emergency service water pump motor. This was not a scram but a manual shutdown. The NRC was notified as per 10CFR50.72 (4 hour notification). See event number 45434.

On October 16, Perry Nuclear Power Plant was shutting down due to technical specification regarding the inoperability of Division 2 Emergency Service Water pump motor. The plant manually tripped the reactor at 0048 hrs due to a reactor recirculation pump trip. The plant was at 30% power and descending when the manual scram (trip) was performed. The plant was placed in Mode 4 (cold shutdown) as required by the technical specification. Root cause analysis indicated an underground electrical cable had degraded. The plant replaced the degraded portion of the cable and also checked other electrical cables associated with the Emergency Service Water system. The plant expects to return to power on November 2.  
See Event Number: 45440.

## **Beaver Valley Power Station**

### **Beaver Valley Unit I**

Beaver Valley Unit I operated at full power for October.

### **Beaver Valley Unit II**

Beaver Valley Unit II operated at full power until October 12 when it entered a refueling outage.

During Reactor Head penetration examination Friday, October 23 two (2) reactor head penetrations showed evidence of small circumferential cracking in the J-groove area. The indications were discovered using ultrasonic examinations as required by the NRC during refueling as a method to discover indications before they grow to a size of through wall penetration and possible leakage. At that point 43 of the 66 reactor head penetrations had been examined. The remainder of the welds will be examined and repairs are being planned which will be completed prior to start-up of the Unit

### **Fermi II**

Fermi started and ended October in a forced outage that started September 30 due to a hydrogen leak into the generator stator water jacket. .

## **Portsmouth Gaseous Diffusion Plant**

There were no reports for Portsmouth in October.

### **Activity:**

- 10/1 Working Group at Ohio EMA. Plant and agency updates. Discussion of the REP guidance comments submitted by Ohio and some of the other Region V states. There is consensus that interpretation must be from headquarters and not from regions on an ad hoc basis.
- 10/5 URSB at Ohio EMA. Discussion of FEMA REP Guidance and comments submitted by the states. The states will select the top 10 most important comments and submit a comment jointly requesting those issues be given top attention.
- 10/22 IZRRAG Drill at Ohio EMA. This functional drill examined the decision making processes and procedures for the Ingestion Zone Recovery and Reentry Advisory Group. Some incorrect planning assumptions of agency (ODNR) authority were identified and will be addressed as part of the planning cycle and procedure revisions.
- 10/28 Working Group at Ohio EMA. Plant, agency and REP guidance updates. Region V has identified the top 20 concerns and will submit these in a survey for the states to rank the top ten and some emerging policy issues for FEMA headquarters to review.

**Office Issues:**

**NRC Reports and Statistics:**

September operating power levels

Date	BV1	BV2	DB	Fermi2	Perry	
1	100	100	100	0	100	Fermi -HYDROGEN IN-LEAKAGE TO STATOR WATER COOLING-SEE EN#45394
5	100	100	100	0	100	
12	100	0	100	0	100	BV – Refueling Outage
16	100	0	100	0	0	Perry – Emergency Service Water pump
19	100	0	100	0	0	
26	100	0	100	0	0	
31	100	0	100	0	0	

**Information Notices**

Beaver Valley Power Station, Unit No. 2 - Relief Request No. 2-TYP-3-RV-01 (MD9970)  
 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: ML092700031

\*\*\*\*\*

Perry Nuclear Power Plant, Unit No. 1 - Relief request PR-3 for Third 10-year pump and

valve inservice testing program -

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. ML092640690

\*\*\*\*\*

Davis-Besse Nuclear Power Station, Unit No.2-Request for additional information related to relief requests for alternative dissimilar metal weld repair methods for reactor vessel nozzles, reactor coolant pump nozzles, and reactor coolant piping -

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. ML092720591

\*\*\*\*\*

PDF version of Information Notice 2009-22, Recent Human Performance Issues at Nuclear Power Plants, dated October 2, 2009 (ML091940257), 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 Information Notice 2009-20, Degradation of Wire Rope Used in Fuel Handling Applications, dated October 7, 2009 (ML092390194), 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 Information Notice 2009-23, Nuclear Fuel Thermal Conductivity Degradation, dated October 8, 2009 (ML091550527), 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. 2 - Proprietary Information Sought To Be Withheld from Public Disclosure (MD9969). 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: ML092700001

\*\*\*\*\*

Fermi Request for Information Letter. 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. ML092740732

\*\*\*\*\*

PDF version of Information Notice 2009-21, Incomplete Medical Testing For Licensed

Operators, dated September 30, 2009 (ML092520457) 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 2009-12, Uranium Recovery Policy Regarding Site Preparation Activities At Proposed, Unlicensed Uranium Recovery Facilities, dated September 23, 2009 (ML092090353) , 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/>.

\*\*\*\*\*

Beaver Valley Power Station - NRC Problem Identification and Resolution Inspection Report 05000334/2009008 and 05000412/2009008, dated October 15, 2009. 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. ML092920008

\*\*\*\*\*

Beaver Valley Power Station, Unit No. 1 - RAI: Decommissioning Fund Plan (ME0487)

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: ML092880811

\*\*\*\*\*

Fermi IR 05000341/2009004 Issued 10/20/09

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: ML092940205.

\*\*\*\*\*

Davis Besse Integrated Inspection Report 05000346/2009-004 issued 10/21/09 - ---

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 the ADAMS number ML092950186

\*\*\*\*\*

Perry Nuclear Power Plant - Safety Evaluation of Relief Requests for Third 10-Year Pump and Valve Inservice Testing Program - 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. ML092890032

\*\*\*\*\*

Davis-Besse Inspection Report 2009 404 - Cover Letter Only

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. ML092960434

\*\*\*\*\*

PDF version of Information Notice 2009-24, Sources of Information Related to Potential Cyber Security Vulnerabilities, dated October 13, 2009 (ML083250226), 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/>.

\*\*\*\*\*

Fermi Letter 10/27/09 (CDBI) Request for Information

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 # ML093010507

\*\*\*\*\*

Davis-Besse Nuclear Power Station, Unit No. 1 - Request for additional information related to a license amendment request to exclude the source range neutron flux instrument channel preamplifier from the channel calibration requirements of TS 3.3.9 -

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. ML092580206

\*\*\*\*\*

Fermi Letter 10/27/09 (CDBI) Request for Information

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 # ML093010507

\*\*\*\*\*

FIRSTENERGY NUCLEAR OPERATING COMPANY PUBLIC MEETING TO DISCUSS ACTIVITIES TO ADDRESS SUBSTANTIVE CROSS-CUTTING ISSUES AT PERRY NUCLEAR POWER PLANT

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 ML 093030155.

\*\*\*\*\*

Beaver Valley 2: Response to Letters L-09-113 & 114, Dtd April 26, 2009 Concerning Request for Experience Evaluation for Operator License Candidates

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: ML0930345

\*\*\*\*\*

Attached is an PDF version of Information Notice 2009-26, Degradation Of Neutron-Absorbing Materials In The Spent Fuel Pool, dated October 28, 2009 (ML092440545),

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/>.

\*\*\*\*\*

## News and Miscellaneous

### **POLICY: Lamar Alexander and renewable advocates spat over Nature Conservancy 'sprawl' study (10/06/2009)**

#### **Christa Marshall, E&E reporter**

A Nature Conservancy report is spawning crossfire between renewable energy advocates and nuclear-power supporter Sen. Lamar Alexander (R-Tenn.).

At a speech at the think tank Resources for the Future yesterday, Alexander **repeated** arguments he made in a recent *Wall Street Journal* op-ed that a report by the conservancy on energy "sprawl" shows that nuclear reactors will take up much less space than wind and solar power.

The August study from the conservancy found that nuclear, coal and geothermal power are the least land-intensive energy sources. Study author Rob McDonald recommended that lawmakers consider land-use implications more in energy policy decisions (*ClimateWire*, Aug. 26).

"The paper warns that during the next 20 years, new energy production, especially biofuels and wind power, will consume a landmass larger than the state of Nebraska," Alexander said. The Tennessee Republican, who wants 100 reactors built in the next 20 years, has been highly critical of a Senate version of a climate bill released last week by Sens. John Kerry (D-Mass.) and Barbara Boxer (D-Calif.).

The Nature Conservancy could not be reached for comment, but McDonald has expressed concern about the way the report was being interpreted. In a recent blog posting, McDonald noted Alexander's arguments and said "it's unsettling sometimes to see the rhetorical uses others have found for this research."

"Energy sprawl concerns should not be an excuse for inaction on climate change," he **wrote**. He pointed out that much energy "sprawl" would occur without enactment of climate legislation and said the conservancy is not opposed to renewable generation. Wind and solar supporters also are fighting back at Alexander. Last night, American Wind Energy Association spokeswoman Christine Real de Azua pointed to a *Wall Street Journal* **op-ed** from association CEO Denise Bode that countered his statements.

"Sen. Lamar Alexander decries the use of large areas of land to produce clean energy from wind and other renewable energy sources. But the economic benefits of wind power are inevitably spread among the farmers and ranchers who host wind turbines on their land," said Bode.

\*\*\*\*\*

### **CLIMATE: Senate Dems opening to nuclear as a path to GOP support, 60 votes (10/07/2009)**

#### **Darren Samuelsohn, E&E senior reporter**

Key Senate Democrats signaled yesterday they are willing to negotiate with Republicans on nuclear power and expanded domestic oil and gas development if it helps in nailing down the 60 votes necessary for floor passage on a comprehensive global warming and energy bill.

"Every idea is on the table," said Foreign Relations Chairman John Kerry (D-Mass.), the lead sponsor of Senate climate legislation. "We're going to work in a bona fide way with everybody to see how to bridge a gap here. We've got to get a 60-vote margin. That means you've got to legislate, which means you have to compromise."

Several moderate Senate Republicans, including John McCain of Arizona and Lindsey Graham of South Carolina, said they are in talks with Kerry and Sen. Joe Lieberman (I-Conn.) on the nuclear language, as well as other key issues.

"A guy like Senator Kerry is looking for coalitions," Graham said. "If you had a bill that would allow for responsible offshore drilling, a robust nuclear power title, I think you could get some Republican votes for a cap-and-trade system."

The 821-page climate bill from Kerry and Sen. Barbara Boxer (D-Calif.) includes a preliminary section on nuclear power that provides greater incentives for worker training and research, as well as funding for a Nuclear Regulatory Commission program to study the feasibility and reliability of expanding commercial reactors use beyond their current 40-year operating licenses, and into the 60- and 80-year operating periods.

The Nuclear Energy Institute said last week the Kerry-Boxer provisions were "a start in the right direction" but wanted to work with senators to create a "meaningful nuclear energy title."

Kerry yesterday said he is open to tacking onto the nuclear provisions in the bill. "There's a nuclear title and it invites discussion on that," he said. "I'm willing to sit down with anybody and talk seriously about how we proceed in a serious way."

Graham said he has urged the Obama administration and Democratic leaders to set up working groups for senators not on the relevant committees to address the nuclear power issue and questions about domestic energy development.

Graham suggested Kerry look to the tentative agreement reached last year among roughly 20 Senate moderates -- Democrat and Republican -- that would open up large swaths of new federal acreage to oil and gas development in the eastern Gulf of Mexico and along the coasts of Virginia, North and South Carolina, and Georgia.

"I'm not talking about anything that hasn't been vetted," Graham said. "This is an idea that has been vetted and got a lot of Democratic support."

Sen. Amy Klobuchar (D-Minn.) also cited the work of the same group of moderate senators on energy. "There's more common ground than there has been with health care," she said. "It just depends on what it is, but again, I think people are willing and open to talk about any energy that helps our country to put us back in the driver's seat again."

Kerry said he is trying to get buy in from the Obama administration on a variety of negotiation points on the climate bill, citing meetings Monday that included Obama, White House political adviser David Axelrod, White House science adviser John Holdren and Energy Secretary Steven Chu.

"The message [Obama] wanted to get over is he's committed to moving forward," Kerry said. "He views it as a critical. It's a job creator. A national security priority."

After talking with Holdren and Chu, Kerry said the administration is focused on the nuclear waste issues -- no doubt a sore spot given longstanding opposition from Majority Leader Harry Reid (D-Nev.) to the Yucca Mountain permanent waste storage site.

"We're looking at the technology and the science very, very closely, and obviously attendant issues," Kerry said. "There are a number of different concerns about that. But we're looking at it. We're trying to figure it out."

### **What the Republicans want**

Graham said he is pushing for language in the Senate bill that puts nuclear power on par with wind and solar power in terms of tax credits and inclusion in a nationwide renewable electricity standard.

"Also to deal with the waste stream," Graham added. "You've got to have a disposition plan to deal with the waste."

McCain said he brings four major demands to the negotiation table: a commitment to construction of new nuclear power plants, loan guarantees, and solutions for both nuclear waste storage and recycling.

"They're not new ideas," McCain said.

Most expect the nuclear proposal to come up during the floor debate on a climate bill, rather than during a markup in Boxer's Environment and Public Works Committee.

"I think there'll be some beginnings of it in the committee process, but I think the whole bill, given so many different committees are working on it, the bill will ultimately come together on the floor," said Klobuchar. "I think we'd be naive to think that that's not true."

In a sign of diminished political power from nuclear opponents, Boxer last week suggested an effort to expand nuclear incentives could win wide support, whether she backed it or not.

"I think it's fair to say the vast majority of senators are very pro-nuclear and so the way I vote on the amendment is not the deciding factor, because in this case you have a sea change of support beyond where I am," Boxer said.

Boxer in 2005 joined three other Senate Democrats in a floor vote against a McCain-Lieberman climate because of what she said were too many giveaways for the nuclear industry

Several other Senate Democrats also say they are open to talks on nuclear power.

"One of the things we need to devote some resources to is beginning to figure out what to do with the spent nuclear fuel rods," said Sen. Tom Carper (D-Del.). "Do we recycle them? Do we reprocess them? I think there's problems with current technology on both of those. We need to figure out what to do with them. We can safely store the stuff on site. And we'll do for several decades."

At the same time, Carper may have teased out one sticking point when he said that he was not sure loan guarantees were a necessity given the boost that already exists from other key pieces of a cap-and-trade system.

"The legislation as drawn provides enormous incentives for the generation of electricity from sources that don't create carbon," he said. "Nuclear is right there. So there'll be a lot of incentives, just from the way the allowance system will be set up."

Carper said he is in talks with a "good number" of Republicans on the nuclear language, but he did not know if it would convince many to vote for the bill.

It is unclear exactly how many GOP votes could be in play by dealing with nuclear power. Republicans who routinely talk about the need to revitalize the industry include Sens. Lisa Murkowski of Alaska, George Voinovich of Ohio, Lamar Alexander of Tennessee and Johnny Isakson of Georgia.

Voinovich said he does not think an agreement on nuclear power would get Democratic sponsors to 60 votes. "This bill, if it's going to be successful, it's going to have to be harmonized as much as it can with an international effort," he said.

As for whether Republicans would agree to changes to the bill that could give President Obama a big victory, Graham said that is not an issue for him.

"I think the planet is heating up," Graham said. "I think CO2 emissions are damaging the environment and this dependence on foreign oil is a natural disaster in the making. Let's do something about it. I'd like to solve a problem, and if it's on President Obama's watch, it doesn't bother me one bit if it makes the country better off."

*Senior reporter Ben Geman contributed.*

\*\*\*\*\*

## **NUCLEAR: 2 NRC appointments said to be near (10/09/2009)**

### **Peter Behr, E&E reporter**

Industry sources expect the Obama administration soon to appoint former Energy Department official William Magwood IV and Massachusetts Institute of Technology professor George Apostolakis to vacancies on the Nuclear Regulatory Commission. Apostolakis, a professor in 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.

Magwood was the federal government's senior nuclear technology official, serving in the Energy Department under former presidents Clinton and George W. Bush before leaving government in 2005. He is a principal with the energy consultancy Advanced Energy Strategies. The two, if confirmed by the Senate, would complete the roster of the five-member NRC as the commission faces pivotal questions about the future of nuclear power.

The NRC is reviewing 17 applications for combined operating licenses for 26 new reactors and four advanced reactor designs.

Apostolakis and Magwood have been mentioned as leading candidates for the NRC vacancies for several months. But Magwood's appointment may have been delayed by opposition from anti-nuclear and environmental groups, expressed in an Aug. 3 letter to President Obama and congressional leaders.

"Mr. Magwood's background, experience, and apparent key interests are in the realm of nuclear power's promotion, not its regulation to protect public health, safety and the environment," the letter said. The groups also cited a comment by Magwood in a *ClimateWire* article in May about the proposed Yucca Mountain nuclear waste repository in which Magwood said that European officials who have visited the isolated site in Nevada "wonder why we're having this argument" (*ClimateWire*, May 11).

Paul Gunter, an official of the Beyond Nuclear organization, one of the letter signers, said the two new NRC appointments "are critical in terms of balancing the decision-making agency affecting both the financial condition of the industry and the public health and safety. We've seen all too often that a heavy-handed commission can shift to protect and promote the industry in spite of its own regulations and enforcement requirements."

Industry officials responded that the appointments of Magwood and Apostolakis would not assure two more commission votes for new nuclear reactor projects, but would give developers a fair opportunity to make their case. "I think they would be going in with open minds," said one industry source who is not a spokesman for his company. "They would be put there because they're fair and balanced. If an application is worthy, there's no predisposition there against the idea of new reactors."

### **Magwood: A 'candid discussion' about nuclear is needed**

Magwood co-authored an article in January, styled as an open letter to Obama as president-elect, saying that "a candid discussion is needed -- within your new administration and in the country as a whole -- about nuclear energy, a non-climate-changing power source that is actually capable of generating significant amounts of energy in the near term. The key to making nuclear energy a more viable alternative is the adoption of advanced spent-fuel recycling techniques to deal with one of nuclear power's most vexing problems -- the presence of radioactive waste material."

He said that nuclear energy "is not a cure-all. ... While it has clear benefits, nuclear power has its costs and its hazards, as do all forms of large-scale energy generation." Ultimately, he continued, "a major storage facility will be needed."

On another front, environmental and anti-nuclear organizations continued to criticize a Senate proposal to create a "green bank" called the "Clean Energy Deployment Administration" (CEDA), authorized to provide federal loan guarantees to advanced energy technologies. The House-passed climate bill spells out that no single technology could receive more than 30 percent of the total loan guarantee portfolio.

Taxpayers for Common Sense protested that the bill passed in July by the Senate Energy and Natural Resources Committee "places no limit on the amount of loan guarantees CEDA can distribute. If the bill moves forward, taxpayers could easily lose billions in defaulted loan guarantees and other forms of credit."

The Congressional Budget Office **reported** on Sept. 30 that based on the number of applications from nuclear power developers currently filed with the Energy Department, nuclear project loan guarantees could exceed \$100 billion over the next 10 years, and that an additional \$1 billion would have to be spent by Congress to cover an anticipated shortfall in loan fees paid by developers.

Ellen Vancko, nuclear and climate change manager of the Union of Concerned Scientists, said, "The CBO report underscores several critical problems with the Senate CEDA bill. Most alarmingly, it would remove existing statutory limits on the amount of loan guarantees DOE could offer, providing the most expensive energy technologies with potentially unlimited access to loans underwritten by the U.S. taxpayer."

Former Federal Communications Commission Chairman Reed Hundt, who heads the Coalition for the Green Bank, suggested in an interview that a ceiling be set on the maximum loan guarantee exposure. "A good answer probably is to have in the statute a maximum cap on the amount of leverage. If Congress capitalizes the bank at \$10 billion, they should write in ... you can never guarantee more than 10 times that \$10 billion," Hundt said.

\*\*\*\*\*

## **NUCLEAR POWER: Obama announces 2 picks for NRC (10/12/2009)**

### **Katherine Ling, E&E reporter**

President Obama intends to nominate the former top nuclear technology official of the Energy Department and a nuclear science and engineering professor at the Massachusetts Institute of Technology to fill the last two vacancies on the Nuclear Regulatory Commission, the White House announced last week.

If confirmed by the Senate, William Magwood IV and George Apostolakis would join the five-member commission at a crucial time for the U.S. nuclear industry. NRC is currently reviewing 17 applications to build and operate the first new U.S. nuclear reactor in more than 30 years and the license to build a high-level waste repository at Yucca Mountain, Nev., which the administration still has not officially withdrawn, although it has announced it wants an alternative to the facility.

The commission also is deciding on several designs for advanced and small reactors and 20-year license extensions for a majority of the 104 reactors currently operating in the United States.

Environmental and anti-nuclear organizations have objected to Magwood's nomination, saying he is too predisposed toward furthering industry interests. "Mr. Magwood's background, experience, and apparent key interests are in the realm of nuclear power's promotion, not its regulation to protect public health, safety and the environment," said a letter the groups sent to Obama in August ([ClimateWire](#), Oct. 9).

Magwood is the longest-serving director of the DOE civilian nuclear technology program, having headed the program from 1998 to 2005, during which he led the

creation of the "Nuclear Power 2010" program, according to the White House. He is currently a principal and founder of the energy consultancy Advanced Energy Strategies. Prior to his time at DOE, Magwood managed the electric utility research and nuclear policy program at the Edison Electric Institute and was a scientist focusing on nuclear waste at Westinghouse Electric Corp.

Magwood is also the chairman of the Generation IV International Forum and the Organisation for Economic Co-operation and Development Steering Committee for Nuclear Energy. He holds bachelor's degrees in physics and English from Carnegie Mellon University. He also has a master of fine arts degree from the University of Pittsburgh.

Apostolakis is a professor of nuclear science and engineering systems at MIT and is the former chairman of the NRC Advisory Committee on Reactor Safeguards. He is a fellow of the American Nuclear Society and the Society for Risk Analysis and a member of the National Academy of Engineering, and received the Tommy Thompson Award for his contributions to improvement of reactor safety, as well as other top-level awards in the field.

Apostolakis holds a diploma in electrical engineering from the National Technical University of Athens, Greece. He has a master of engineering science degree and a doctorate in engineering science and applied mathematics from the California Institute of Technology.

\*\*\*\*\*

## **NUCLEAR POWER: Safety concerns prompt NRC rejection of Westinghouse reactor design (10/16/2009)**

### **Katherine Ling, E&E reporter**

The Nuclear Regulatory Commission halted review yesterday of a modified reactor design by Westinghouse Electric Co. because of safety concerns.

The Advanced Passive 1000 shield building won't protect the reactor from "severe weather and other events," NRC said, adding that tests must demonstrate the building will perform as intended.

"We've been talking to Westinghouse regularly about the shield building since October 2008, and we've consistently laid out our questions to the company," Michael Johnson, director of NRC's Office of New Reactors, said in a statement.

"This is a situation where fundamental engineering standards will have to be met before we can begin determining whether the shield building meets the agency's requirements."

Seven of 17 new nuclear plant applications being reviewed by the commission use the AP1000 design, including Southern Co.'s Vogtle site and Florida Power and Light Co.'s Turkey Point site.

The NRC decision comes as Republican senators are seeking to include language in a climate change bill that would streamline the review of new reactor applications. NRC and environmental groups say the quality of the applications and the reactor-design certification process have lengthened review times ([E&ENews PM](#), Oct. 15).

NRC said it will continue to review the other parts of the amended AP1000 design

certification application. NRC certified the original reactor design in 2006, but Westinghouse amended the design in 2007 and updated that amendment in September 2008.

It is not clear how the problems with the shield building would affect the overall AP1000 certification review schedule or the reviews of new reactor applications that use the reactor, NRC said. A better picture of the schedule will be available after NRC staff and Westinghouse discuss how the company will address the problems, the commission said.

Westinghouse, a Toshiba Group company, said the company had "fully expected" NRC to request additional analysis, tests and design modifications to the shield building. Westinghouse plans to have the NRC certification by 2011 and to bring the first reactors online in 2016.

Westinghouse said it has "already begun to address certain portions of the design." "We have fully committed the resources necessary to both quickly and definitively address the NRC's concerns, and we are confident that we will meet all applicable requirements," the company said in a statement.

\*\*\*\*\*

### **NUCLEAR POWER: Life after 40 uncertain for reactors (10/19/2009)**

Nuclear industry operators are seeking to extend the life of their plants -- built to last 40 years -- to 60 or even 80 years, a move to recoup costs that has safety implications. Many plants already have had to replace steam generators after just 20 years at a cost of about \$50 million per generator, according to Steve Kerkedes, press officer for the Nuclear Energy Institute, an industry lobby group.

Extending the traditional life of nuclear plants can help amortize that cost, but it creates other problems. For example, there are few manufacturers of replacement components. And many control room commands still rely on analog technology, said Scott Burnell, press officer for the Nuclear Regulatory Commission. As a result, today's engineering school graduates are often unfamiliar with the technology used to run the plants.

And while many parts of a plant can be replaced, it is not known whether the reactor vessel or containment building can last beyond 40 years. French and U.S. regulatory documents show that as long ago as 1991, cracks in vessel heads -- the structures that cover reactor vessels -- were found in reactors worldwide.

Guillaume Wack, the director for nuclear plants at the French nuclear regulator Autorite de Surete, likened the 40-year lifespan to that of a car.

"The manufacturer says it will run for 100,000 kilometers" -- 60,000 miles -- "and last two years. That's the theoretical life. After that, it depends on how you run it. If you drive carefully with regular checkups, it could last much longer. If you drive recklessly and don't maintain it, it will wear out more quickly" (Patricia Brett, *The New York Times*, Oct. 19). -- AC

\*\*\*\*\*

### **NUCLEAR POWER: Can potential incentives in climate bill spur U.S. industry?**

(10/27/2009)

**Katherine Ling, E&E reporter**

A possible nuclear energy title in the climate bill with strong financial and regulatory incentives has been touted as one of the top negotiable items to obtain the necessary 60-votes needed to pass the Senate climate legislation.

But how much would strong incentives for nuclear power help spur U.S. industry and quicken the pace of a "nuclear renaissance"?

There are currently 17 applications for 26 reactors before the Nuclear Regulatory Commission, for which the expected review time is about four years and construction time an additional four to five years. Furthermore, the industry faces several significant hurdles including a bottleneck in the global supply chain for nuclear components -- some of which have only one manufacturing facility, a looming shortage of qualified workers and a recalcitrant Wall Street that is hesitant to invest in projects, even with loan guarantees from the U.S. government.

"If someone were to wave a magic wand and give loan guarantees to every single plant, you still wouldn't expect anywhere near all of them to be built all at once," said an industry source.

"There are real constraints on the supply chain and there is a real sense of caution in the industry and especially on Wall Street as to when and for what price new nuclear plants can be built here," the source added.

The Nuclear Energy Institute yesterday unveiled legislative priorities it says are necessary to build 45 reactors by 2030. NEI wants \$100 billion in additional loan guarantees for clean energy technology, additional production and manufacturing tax incentives, improving regulation review efficiency and increased funding for nuclear technology research and development (*E&ENews PM*, Oct. 26).

"What we are trying to do is optimize the opportunity for building new nuclear plants," said Alex Flint, NEI's senior vice president for governmental affairs. "What needs to be put in place is a regulatory and financial framework for new plant construction" so companies and investors can move forward, Flint said.

The NEI proposal echoes nuclear energy language and provisions laid out over the past year by several key moderate Republicans -- including Sens. Lindsey Graham of South Carolina, Lisa Murkowski of Alaska and John McCain of Arizona -- for whom a "robust" nuclear title is necessary, if not sufficient, to vote for a climate bill.

"The only way we get there ... is if we really ramp up nuclear," Murkowski said in a C-SPAN interview last week.

Graham recently reinvigorated negotiations between Republicans and Democrats over cap-and-trade legislation with a commitment to work with Sen. John Kerry (D-Mass.) to include robust nuclear and domestic oil and gas drilling titles in the bill.

The Kerry-Graham **op-ed** and President Obama's remarks two weeks ago in New Orleans that "it would be stupid" not to use nuclear energy effectively to cut greenhouse gas emissions have increased expectations that nuclear energy will play a larger role in climate bill negotiations.

Even Environment and Public Works Chairwoman Barbara Boxer (D-Calif.), who is anti-nuclear and is one of the main authors of the Senate climate bill, conceded earlier this month that nuclear incentives have "a sea change of support" that negate her vote as a

deciding factor.

"We think a consensus is beginning to develop in Washington that nuclear incentives must be in climate legislation," Flint said. "These are the things that are necessary to build new plants on schedule for what is needed for the climate change space," he said.

### **Getting from here to there**

But a lot remains in the balance in "ramping up" nuclear and getting from the current zero new nuclear reactors to 45 or more. Though financing remains a top issue for the nuclear industry, it appears that pinning down a price point for the new plants is also a major issue.

"I think the biggest impediment of aggressive nuclear technology is its cost," said Ralph Izzo, chairman, president and CEO of the New Jersey-based utility Public Service Enterprise Group Inc. PSEG is waiting for the first new reactors to be licensed and built before making any decision about new nuclear plants, he said. "The cost is not within my comfort level right now," he said.

A June report by Moody's Investor Services maintained that the credit agency "is considering taking a more negative view for those issuers seeking to build new nuclear power plants," as most utilities are not adjusting their balance sheets to commence on such an endeavor and as a reflection of the high risk involved in a possible \$6 billion to \$8 billion investment.

The report notes federal loan guarantees will "only modestly mitigate increasing business and operating risk profile."

Flint said the report took a "snapshot" of companies that submitted license applications and a specific company-by-company analysis would provide more pertinent data.

Additional loan guarantees will help the financial situation, he said.

Those companies that are the reported finalists for the \$18.5 billion are also the projects that Moody's lists as having a "high" activity level. The finalists are: UniStar Nuclear Energy/Constellation Energy Group's proposed Calvert Cliffs plant in Maryland; NRG Energy Inc.'s South Texas Project; Southern Co.'s Vogtle plant in Georgia; and Scana Corp.'s Summer plant in South Carolina.

Energy Secretary Steven Chu indicated last month that he would push for additional loan guarantee authority for nuclear power to provide more certainty to restart the U.S. nuclear industry.

"If you really want to restart the American nuclear energy industry in a serious way ... we [need to] send signals to the industry that the U.S. is serious about investing in nuclear power plants," Chu told Dow Jones Newswire.

### **The second wave**

But there is more to building a plant than financing. Until those first reactors receive a construction and operating license from NRC and can build within a reasonable budget, most shareholders, board of directors and regulators will not commit to building a reactor. Without that commitment, the manufacturing companies, labor and other supporting industries will remain conservative in increasing their own capacity -- an additional delay to achieving a revival of the nuclear industry.

The industry needs specialized components and engineers and labor to build the new reactors, all of which are in short supply and have their own funding issues and construction lead times.

Japan Steel Works produces 80 percent of the market for large forged components,

such as reactor pressure vessels, steam generators and turbine shafts, and the waiting period to obtain these is several years, as it produces only about four sets of these large components a year. China and Russia also have large forging capabilities and new capacity is being built in those countries as well as France and South Korea. But it will take time to construct these new facilities and there is likely going to be less certainty with products from some of these untested manufacturers.

The labor force to construct and operate new nuclear reactors is also in short supply. The median age for the nuclear industry is more than 48 years old and as much as 35 percent of the work force could retire by 2013, according to NEI. Over the next five years, the industry may need to hire up to 25,000 more workers, many of which will lack the on-the-job skills and knowledge the previous workers experienced with building new reactors in the previous cycle.

Flint said the additional loan guarantees, tax incentives and regulatory streamlining in the legislative proposal for the climate bill will largely affect this "second wave" of nuclear reactors, likely to be determined in the 2012 to 2013 timeframe.

"What is going to be tremendously important is the second wave, particularly for the manufacturing issue," Flint said. "As that becomes clear the domestic companies will ramp up production."

But that second wave largely relies on the success of the first wave. Flint says the first reactors will likely come on-line between 2016 to 2020 and are "well down the path" toward construction.

But others put a significant second wave of reactors farther down the road -- at least a decade from now -- anticipating companies will wait until the first reactors are licensed and constructed.

The possibility of more delay increased last week as NRC rejected one of the primary reactor designs, Westinghouse's AP 1000, which two applications of the four finalists for the loan guarantee rely upon ([Greenwire](#), Oct. 16).

\*\*\*\*\*

Power Reactor	Event Number: 45394
Facility: FERMI Region: 3 State: MI Unit: [2] [ ] [ ] RX Type: [2] GE-4 NRC Notified By: GREG MILLER HQ OPS Officer: JOHN KNOKE	Notification Date: 09/30/2009 Notification Time: 14:11 [ET] Event Date: 09/30/2009 Event Time: 11:09 [EDT] Last Update Date: 09/30/2009
Emergency Class: NON EMERGENCY 10 CFR Section: 50.72(b)(2)(iv)(B) - RPS ACTUATION - CRITICAL	Person (Organization): JULIO LARA (R3DO)

Unit	SCRAM Code	RX CRIT	Initial PWR	Initial RX Mode	Current PWR	Current RX Mode
2	M/R	Y	100	Power Operation	0	Hot Shutdown

**Event Text****MANUAL REACTOR SHUTDOWN DUE TO HYDROGEN IN-LEAKAGE TO STATOR WATER COOLING SYSTEM**

"At 11:09 EDT 09/30/09, the reactor mode switch was taken to shutdown and the main turbine generator was manually tripped in response to hydrogen gas in-leakage into the stator water cooling system from the main turbine generator. The scram was uncomplicated, and all control rods fully inserted into the core. The lowest reactor vessel water level reached was 122 inches, and as expected, HPCI & RCIC did not actuate. No safety relief valves (SRV) actuated. Reactor water level is being controlled in the normal band using the control rod drive and reactor feedwater systems. All isolations and actuations for reactor water level 3 occurred as expected.

"The cause of the increased hydrogen gas in-leakage into the stator water cooling is under investigation. At the time of the manual scram all Emergency Core Cooling Systems and Emergency Diesel Generators were operable, and no significant safety related equipment was out of service. This report is being made in accordance with 10 CFR 50.72(b)(2)(iv)(B), as an event that results in actuation of the reactor protection system (RPS) when the reactor is critical."

The licensee has notified the NRC Resident Inspector.

\*\*\*\*\*

Power Reactor	Event Number: 45423
Facility: PERRY Region: 3 State: OH Unit: [1] [ ] [ ] RX Type: [1] GE-6 NRC Notified By: DAVID DUESING HQ OPS Officer: CHARLES TEAL	Notification Date: 10/09/2009 Notification Time: 18:07 [ET] Event Date: 10/09/2009 Event Time: 15:44 [EDT] Last Update Date: 10/09/2009
Emergency Class: NON EMERGENCY 10 CFR Section: 50.72(b)(2)(xi) - OFFSITE NOTIFICATION	Person (Organization): JULIO LARA (R3DO)

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

**Event Text****OFFSITE NOTIFICATION DUE TO A SPILL OF HYDRAULIC FLUID**

"On October 9, 2009, at approximately 1544 hours EDT, notification of an oil spill was made to the U.S. Environmental Protection Agency (EPA), National Response Center.

At the time of the event, the plant was in Mode 1 at 100% power. The oil spill was the result of delivery activities related to a backhoe that was delivered to the Perry Nuclear Power Plant in the owner controlled area. The spill was initially estimated to be approximately 3 to 5 gallons of a red colored oil resembling hydraulic fluid. With current rainy weather conditions, the resultant sheen covered an area of approximately 20 to 25 feet by 100 feet of gravel and asphalt. The spill drained into two storm drains. The backhoe was moved inside of a building with a concrete floor. Absorbent material and oil selective soak mulch were placed on the area of the spill. Clean Harbors Incorporated (CHI) was contacted for clean up assistance. CHI representatives are providing assistance for clean-up remediation.

"Additionally, the Ohio EPA: State Emergency Response Commission, Perry Township Fire Department, Lake County Emergency Planning committee, and the U.S. Coast Guard were notified in accordance with plant procedures. This event is also being reported in accordance with the Operating License, Appendix B, Environmental Protection Plan, which states in part, 'Any occurrence of an unusual or important event that indicates or could result in significant environmental impact causally related to plant operation shall be recorded and reported to the NRC within 24 hours followed by written report. Specifically, unanticipated or emergency discharge of waste water or chemical substances.'"

The licensee has notified the NRC Resident Inspector.

\*\*\*\*\*

Other Nuclear Material	Event Number: 45431
Rep Org: OHIO DEPARTMENT OF HEALTH Licensee: PRODUCERS SERVICE CORPORATION Region: 3 City: ZANESVILLE State: OH County: License #: Agreement: Y Docket: NRC Notified By: MICHAEL SNEE HQ OPS Officer: DONG HWA PARK	Notification Date: 10/14/2009 Notification Time: 09:12 [ET] Event Date: 10/12/2009 Event Time: [EDT] Last Update Date: 10/14/2009
Emergency Class: NON EMERGENCY 10 CFR Section: AGREEMENT STATE	Person (Organization): ERIC DUNCAN (R3DO) ANGELA MCINTOSH (FSME)

This material event contains a "Less than Cat 3" level of radioactive material.

**Event Text**

AGREEMENT STATE REPORT - LOST GAUGE FOUND WITH SHUTTER STUCK

## OPEN

The following event was received from the state via e-mail:

"A radiation alarm was tripped at PSC Metals from a load of scrap metal coming from Polk Metal and Iron located in Zanesville, Ohio. The load of scrap metal was returned to Polk Metal and Iron. The BRP [Bureau of Radiation Protection] was informed on October 12 and dispatched an inspector to Polk Metal and Iron on October 13. Based on the information on the device [Texas Nuclear model # 5190 SN B5283 containing 200 mCi of Cs-137] the BRP contacted the manufacturer and learned that the device was initially distributed to Producers Service Corporation, also located in Zanesville.

"The Producers Service Corporation was contacted and sent a representative to meet the BRP inspector at the Polk site to retrieve the gauge. The inspector surveyed the gauge and found that the shutter was stuck open with an in-beam dose rate of 200 mR/hr at six inches. The shutter mechanism was freed and verified closed by the inspector. The device was transported less than a mile to the Producers Service Corp facility and is now secured in a vacant office in a secured building. The inspector wipe tested the device and found it to be free of contamination. Producers Service Corporation is in the process of contacting the device manufacturer to make disposal arrangements. The device was a generally licensed device distributed on September 9, 1986.

"The inspector determined that the device was inadvertently sent to the scrap yard and that Producers Service Corporation was not attempting to illegally dispose of the device.

"Device Name: Fixed Gauge  
Manufacturer: Texas Nuclear  
Model Number: 5190  
Serial Number: B5283"

Ohio Report No. OH09-031

**THIS MATERIAL EVENT CONTAINS A "LESS THAN CAT 3" LEVEL OF RADIOACTIVE MATERIAL**

Sources that are "Less than IAEA Category 3 sources," are either sources that are very unlikely to cause permanent injury to individuals or contain a very small amount of radioactive material that would not cause any permanent injury. Some of these sources, such as moisture density gauges or thickness gauges that are Category 4, the amount of unshielded radioactive material, if not safely managed or securely protected, could possibly - although it is unlikely - temporarily injure someone who handled it or were otherwise in contact with it, or who were close to it for a period of many weeks. For additional information go to [http://www-pub.iaea.org/MTCD/publications/PDF/Pub1227\\_web.pdf](http://www-pub.iaea.org/MTCD/publications/PDF/Pub1227_web.pdf)

Although IAEA categorization of this event is typically based on device type, the staff has been made aware of the actual activity of the source, and after calculation determines that it is a Less than Cat 3 event.

Note: the value assigned by device type "Category 3" is different than the calculated value "Less than Cat 3"

\*\*\*\*\*

Power Reactor	Event Number: 45434
Facility: PERRY Region: 3 State: OH Unit: [1] [ ] [ ] RX Type: [1] GE-6 NRC Notified By: MICHAEL NEMCEK HQ OPS Officer: STEVE SANDIN	Notification Date: 10/15/2009 Notification Time: 14:47 [ET] Event Date: 10/15/2009 Event Time: 12:25 [EDT] Last Update Date: 10/15/2009
Emergency Class: NON EMERGENCY 10 CFR Section: 50.72(b)(2)(i) - PLANT S/D REQD BY TS	Person (Organization): ERIC DUNCAN (R3DO)

Unit	SCRAM Code	RX CRIT	Initial PWR	Initial RX Mode	Current PWR	Current RX Mode
1	N	Y	100	Power Operation	75	Power Operation

### Event Text

#### UNIT COMMENCED SHUTDOWN DUE TO INOPERABLE DIVISION 2 EMERGENCY SERVICE WATER SYSTEM

"This event is being reported in accordance with 10CFR50.72(b)(2)(i). On October 15, 2009, at approximately 1225 hours, the Perry Nuclear Power Plant commenced a Technical Specification required plant shutdown.

"On October 14, 2009, At 1747 hours, the Division 2 Emergency Service Water (ESW) system was declared inoperable and unavailable for planned work. The plant entered Technical Specification (TS) 3.7.1 Action A for one inoperable ESW Division. Other supported TSs were also entered (TS 3.8.1 for the Division 2 diesel generator, TS 3.6.1.7 for Containment Spray 'B', TS 3.6.2.3 for Suppression Pool Cooling 'B', TS 3.7.10 for Emergency Closed Cooling 'B', TS 3.5.1 for LPCI 'B' & 'C', among others).

"On October 15, 2009, at 0601 hours, the ESW 'B' pump was started for a planned pump run. At 0718 hours, the ESW 'B' pump tripped for unknown reasons. The determination was made to commence a controlled plant shutdown and power reduction commenced at 1225 hours. This decision was based on the anticipated

investigation and repair time of ESW 'B' pump exceeding the TS 3.7.1 Action A 72 hour LCO completion time, and therefore, Action B requires the plant to be in MODE 3 within 12 hours and in MODE 4 in 36 hours. The TS 3.7.1 Action A 72 hour LCO completion time coincides with October 17, 2009, at 1747 hours.

"Currently, the plant is expected to be in MODE 3 at approximately 2300 hours on October 15, 2009.

"The NRC Resident Inspector has been notified. The State and Counties will also be notified."

\*\*\*\*\*

Power Reactor	Event Number: 45440
Facility: PERRY Region: 3 State: OH Unit: [1] [ ] [ ] RX Type: [1] GE-6 NRC Notified By: DAVID DUESING HQ OPS Officer: VINCE KLCO	Notification Date: 10/16/2009 Notification Time: 01:48 [ET] Event Date: 10/16/2009 Event Time: 00:48 [EDT] Last Update Date: 10/16/2009
Emergency Class: NON EMERGENCY 10 CFR Section: 50.72(b)(2)(iv)(B) - RPS ACTUATION - CRITICAL	Person (Organization): ERIC DUNCAN (R3DO)

Unit	SCRAM Code	RX CRIT	Initial PWR	Initial RX Mode	Current PWR	Current RX Mode
1	M/R	Y	30	Power Operation	0	Hot Shutdown

**Event Text**

**MANUAL REACTOR SCRAM DUE TO REACTOR RECIRCULATION PUMP TRIP**

"On October 16, 2009 at 0048 a manual reactor scram was inserted at the Perry Nuclear Plant.

"The plant was conducting a planned shutdown due to the Division 2 Emergency Service Water inoperability. While shifting reactor recirculation pumps to slow speed the 'A' pump failed to transfer and tripped off. Following stabilization from this event a manual reactor scram was inserted from approximately 30% power. This was different from the initial planned shutdown sequence.

"Following the scram all systems operated as expected. The plant is stable in Mode 3. The plant will transition to Mode 4 in accordance with Technical Specification 3.7.1 (Emergency Service Water Inoperability) required actions."

All control rods fully inserted and the plant electrical power is in a normal line-up.

The licensee notified the NRC Resident Inspector.

\*\*\*\*\*

General Information or Other	Event Number: 45450
Rep Org: PA BUREAU OF RADIATION PROTECTION Licensee: UNIVERSITY OR PITTSBURGH Region: 1 City: PITTSBURGH State: PA County: License #: PA-0190 Agreement: Y Docket: NRC Notified By: DAVID ALLARD HQ OPS Officer: PETE SNYDER	Notification Date: 10/21/2009 Notification Time: 16:44 [ET] Event Date: 08/04/2009 Event Time: [EDT] Last Update Date: 10/21/2009
Emergency Class: NON EMERGENCY 10 CFR Section: AGREEMENT STATE	Person (Organization): LAWRENCE DOERFLEIN (R1DO) RICHARD TURTIL (FSME)

### Event Text

#### AGREEMENT STATE REPORT - UNAUTHORIZED ORDER OF TRITIUM GAS

"Event location: Customs and Border Protection in Cleveland, OH

"Notifications: [The Pennsylvania Department of Environmental Protection] DEP got a phone call from the RSO [Radiation Safety Officer] on October 6th, 2009, that there was a suspicion of unauthorized order of radioactive material. Confirmation phone call [was made] from the RSO to the DEP on October 21, 2009, after a full internal investigation to confirm suspicion of unauthorized order of tritium gas.

"Event description: On August 4,2009, an unauthorized researcher from University of Pittsburgh placed an order with 'Microtek AG' for 11.88 Curies of tritium. The order was shipped on September 11, 2009 and inspected by Customs & Border Protection (CBP) at Cleveland, OH. CBP contacted the RSO to verify the license, and the Univ. of Pittsburgh advised CBP that the shipment was an unauthorized order. The order was returned to [the] shipper (Microtek AG of Switzerland)."

Event Report ID No: PA090033

\*\*\*\*\*

Power Reactor	Event Number: 45463
Facility: BEAVER VALLEY Region: 1 State: PA Unit: [ ] [2] [ ] RX Type: [1] W-3-LP,[2] W-3-LP NRC Notified By: ROBERT HADDOCK HQ OPS Officer: BILL HUFFMAN	Notification Date: 10/23/2009 Notification Time: 20:20 [ET] Event Date: 10/23/2009 Event Time: 17:00 [EDT] Last Update Date: 10/23/2009
Emergency Class: NON EMERGENCY 10 CFR Section: 50.72(b)(3)(ii)(A) - DEGRADED CONDITION	Person (Organization): LAWRENCE DOERFLEIN (R1DO)

Unit	SCRAM Code	RX CRIT	Initial PWR	Initial RX Mode	Current PWR	Current RX Mode
2	N	N	0	Refueling	0	Refueling

### Event Text

#### SMALL CIRCUMFERENTIAL INDICATIONS FOUND ON TWO REACTOR VESSEL HEAD PENETRATIONS

"On October 23, 2009 during the Beaver Valley Power Station Unit No. 2 (BVPS-2) refueling outage, it was determined that the results of planned ultrasonic (UT) examinations performed on two penetrations of the reactor vessel head would not meet the applicable acceptance criteria. Both require repair prior to returning the vessel head to service. Each of these penetrations has a small circumferential indication near the toe of the J-groove weld. The indications are not through wall and there was no evidence of leakage based on inspections performed on the top of the reactor vessel head. The examinations were being performed to meet the requirements of 10CFR50.55a(g)(6)(ii)(D) and ASME Code Case N-729-1, to find potential flaws/indications well before they grow to a size that could potentially jeopardize the structural integrity of the reactor vessel head pressure boundary. Currently 43 of 66 penetrations have been examined; all of the penetrations will be examined during the current refueling outage.

"The plant is currently shutdown and in an undefined mode as the fuel has been offloaded from the reactor to the spent fuel pool. The reactor vessel head is not currently installed. Repairs are currently being planned and will be completed prior to startup.

"This is reportable pursuant to 10 CFR 50.72(b)(3)(ii)(A) since the as found indications did not meet the applicable acceptance criteria referenced in ASME Code Case N-729-1 to remain in-service without repair.

"The NRC Resident Inspector has been notified."

\*\*\*\*\*

\*\*\*\*\*

\*\*\*\*\*