To: Jim Mehl, ERU Supervisor

From: Zack Clayton, Rad Coordinator

Subject: December Monthly Report

Date: January 7, 2011

Beans

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

Web Page Views: There were 24 page views in December.

Coming Attractions

1/6	Working group
1/12	CMMRS Exercise Design
1/17	URSB
1/25	Site Entry Safety Levels
1/26	NEPAC
1/25	CMMRS
2/1	Working Group

Facility updates

Davis-Besse Nuclear Power Station

Davis-Besse started December in a planned maintenance shutdown to replace the reactor head that was extended due to the discovery of cracking in the concrete of the shield building.

On December 2 the NRC concluded its evaluation of the cracking found in the Davis-Besse Shield building during the reactor head replacement outage. The NRC has concluded the cracks found in the building do not adversely affect the plant's ability to operate in a safe fashion. The operators of the Davis-Besse nuclear power plant, FirstEnergy Nuclear Operating Corp. (FENOC) have provided reasonable assurance that the shield building is capable of performing its safety functions and that the utility can proceed with restarting the plant. The NRC's independent assessment evaluated a wide range of information such as technical details ranging from the size of the cracks, the utility's sampling and testing of the concrete in the building to determine the extent

of the cracks, and its structural analysis. Davis-Besse has been given permission to restart and it is estimated the plant will be synchronized with the electrical grid sometime the week of December 5. There will be a public meeting on this issue as part of the closure meeting.

At 7:23, December 6, Davis-Besse synchronized to the grid. The reactor was at 23% power and increasing.

Perry Nuclear Power Plant

Perry started December at full power

On December 6 Perry informed the State that testing on the transformer borrowed from Davis-Besse was complete and it was placed in service. This allowed Perry to exit the temporary operating condition granted by the NRC when the original transformer failed in September. This transformer is only used during startup so there was no impact to plant operations at power.

On December 7 the Perry Nuclear Power Plant formally notified the NRC of an unanalyzed condition originally identified on November 16, 2011. The condition dealt with a calculation used in a flooding scenario for the control center. The calculation assumed plant operators would take mitigating actions, but such actions were not specified in the operating guidance used by plant personnel. By November 22 the operating guidance was updated. During an inspection by the NRC on December 2 an NRC inspection found that the discovery of the unanalyzed condition should have been reported to the NRC within 8 hours as required by the Code of Federal Regulations. PNPP was informed December 7 that the call should be made so as to have this event properly documented. See Event No. 47508.

Perry notified the state that the plant would be reducing power to approximately 50% for maintenance activities the weekend of December 10. The plant returned to full power on Sunday.

On December 10, Perry Nuclear Power Plant made a formal notification to the NRC that spring clips used in the Reactor Core Isolation Cooling (RCIC) system did not meet requirements for nuclear usage. The RCIC system has been taken offline until the problem can be corrected. The plant has other cooling systems which will serve in the RCIC's place. This placed the plant in a 14 day Limited Condition of Operation, meaning the plant has 14 days to correct the problem or shut down if the problem cannot be corrected within that time period. Perry has properly certified spring clips on site and anticipates having the new spring clips installed before it becomes necessary to shut down. See Event No 47515.

On December 21 it was determined that the weekly groundwater level readings were higher than the design assumption of 568 feet, but less than the acceptance level of 575 feet. The levels between 568 and 575 feet, where level was measured, is undefined. There is no violation of any operating or technical level, but it is undefined.

Perry is addressing this by repairing a permanent non-safety pump, and running temporary pumps to lower the groundwater level to less than the design assumption of 568 feet. The plant staff is also performing a calculation revision to eliminate the knowledge gap between 568 and 575 feet.

This condition has not resulted in a release of radiation to the environment. There is no danger to the public. And the NRC was notified. See Event No. 47545.

Beaver Valley Power Station

The Nuclear Regulatory Commission's (NRC) Emergency Response Data System (ERDS) for both units of the Beaver Valley Nuclear Power Station was off line from December 5 to December 9 for computer upgrades. No other plant data systems were affected by the ERDS outage. See Event No 47513.

Beaver Valley Unit I

Unit I operated at full power for December.

Beaver Valley Unit II

Unit II operated at full power for December.

Fermi II

Fermi II operated at full power for December.

At 1017 on December 16, Fermi lost the safety parameter display and ERDS due to a computer failure. The systems were restored at 2235 that evening. See Event No 47530.

Fermi III

No information received.

Portsmouth Enrichment Plant

There were no reports for Portsmouth for December. There was a site emergency preparedness drill conducted with limited state participation. There had been no contact with Ohio EPA about this prior to a few days before the drill during an inspection. They

had been contacting a representative who has retired. Their contact list has been updated with the correct contacts for SEDO.

Activity

12/8 Working Group – Agency and Plant updates. Michael Baer is now the official Radiation Branch Manager, the Supervisor position will be posted. The order for 1000 self reading dosimeters for emergency workers has been submitted to the manufacturer. The Agriculture Brochure is posted on the ODA website. The mapping scheme for ingestion has been finalized, the sample results from the FRMAC will be logged on a separate map layer to avoid confusion.

Office Issues

IZRRAG, and Field Team SOP review and revision continues.

News, NRC Reports, and Statistics

Operating Power Levels

December

Date	BV1	BV2	DB	Perry	Fermi2	
1	100	100	0	100	97	Rod pattern adjustment.
5	100	100	0	100	100	
6	100	100	18	100	100	Warming the turbine
7	100	100	94	100	100	Increasing power
12	100	100	100	100	100	
19	100	100	100	100	100	
26	100	100	100	100	100	
31	100	100	100	100	100	

Information Notices

The ADAMS Accession documents are 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
or to access generic communications files on the NRC Homepage:
http://www.nrc.gov/reading-rm/doc-collections/gen-comm/reg-issues/2010/.
To access these documents use the ADAMS Accession number listed with the title.
This is in the format of : ML #########

*****
Errata for Davis-Besse Nuclear Power Station Integrated Inspection Report 05000346/2010-003 –
ADAMS Accession No.: ML113360431
*****
DAVIS-BESSE 12/01/2011 OPERATOR LICENSE EXAM APPROVAL LETTER
ADAMS ACCESSION # ML11336A168
*****
DAVIS-BESSE 12/1/2011 REQUEST FOR INFORMATION LETTER
ADAMS ACCESSION # ML11336A145
*****
DAVIS-BESSE CAL 3-11-001 Confirmatory Action Letter
ADAMS ACCESSION # ML11336A355
*****
Davis-Besse: Summary of Telephone Conference Call Held on July 27, 2011, Between the U.S. Nuclear Regulatory Commission and FirstEnergy Nuclear Operating Company, Concerning Request for Additional Information Pertaining to the Davis-Beese License Renewal Application (TAC NO. ME4640)
ADAMS Accession No. ML11327A087
*****
Davis-Besse: Summary of Telephone Conference Call Held on September 13, 2011, Between the U.S. Nuclear Regulatory Commission and FirstEnergy Nuclear Operating Company , Concerning Request for Additional Information Pertaining to the Davis-Beese License Renewal Application (TAC NO. ME4640)
ADAMS Accession No. ML11327A079
*****
DAVIS-BESSE: Summary of Telephone Conference Call Held on September 29, 2011, Between the U.S. Nuclear Regulatory Commission and FirstEnergy Nuclear Operating Company, Concerning Requests for Additional Information Pertaining to the Davis-Beese, License
ADAMS Accession No. ML11327A008
*****
Davis-Besse Nuclear Power Station, Unit No.1-Issuance of amendment re: adoption of Technical Specifications task force change traveler 513, Revision to Technical Specification 3.4.14,"Reactor Coolant System Leakage detection instrumentation" –
ADAMS Accession no. ML112590431
*****
Davis-Besse IR 2011-407 Cover Ltr Only
ADAMS Accession No. ML11346A091
*****
Davis-Besse: Summary of Telephone Conference Call Held on November 22, 2011, Between the U.S. Nuclear Regulatory Commission and FirstEnergy Nuclear Operating Company, Concerning RAIs Pertaining to the Davis-Besse Nuclear Power Station LRA
ADAMS Accession No. ML11339A086
*****

PDF Information Notice 2011-21, Realistic Emergency Core Cooling System Evaluation Model Effects Resulting From Nuclear Fuel Thermal Conductivity Degradation, dated December 13, 2011
ADAMS Accession No. ML113430785
*****
Davis-Besse: Summary of Telephone Conference Call Held on June 15, 2011 Between the U.S. Nuclear Regulatory Commission and FirstEnergy Nuclear Operating Company, Concerning Requests for Additional Information Pertaining to the Davis-Besse Nuclear Power Station LRA
ADAMS Accession No. ML11341A118
*****
G20110262/EDATS: OEDO-2011-0269 - Acknowledgment Letter Regarding 2.206 Petition of April 13, 2011 from Paul Gunter to Immediately Suspend OLs of GE BWR Mark I Units
ADAMS Accession No. ML11339A078
*****
G20110262/EDATS: OEDO-2011-0269 - Acknowledgment Letter Regarding 2.206 Petition of April 13, 2011 from Paul Gunter to Immediately Suspend OLs of GE BWR Mark I Units 1 of 4
ADAMS Accession No ML11339A078_part1
*****
G20110262/EDATS: OEDO-2011-0269 - Acknowledgment Letter Regarding 2.206 Petition of April 13, 2011 from Paul Gunter to Immediately Suspend OLs of GE BWR Mark I Units 2 of 4
ADAMS Accession No ML11339A078_part2
*****
G20110262/EDATS: OEDO-2011-0269 - Acknowledgment Letter Regarding 2.206 Petition of April 13, 2011 from Paul Gunter to Immediately Suspend OLs of GE BWR Mark I Units 3 of 4
ADAMS Accession No ML11339A078_part3
*****
G20110262/EDATS: OEDO-2011-0269 - Acknowledgment Letter Regarding 2.206 Petition of April 13, 2011 from Paul Gunter to Immediately Suspend OLs of GE BWR Mark I Units 4 of 4
ADAMS Accession No ML11339A078_part4
*****
Summary of November 18, 2011, Meeting with the Nuclear Energy Institute Industry Representatives, and Licensees on Transitioning to National Fire Protection Association Standard 805
ADAMS Accession No.: ML113340218
*****
Davis-Besse: Summary of Telephone Conference Call Held on November 1, 2011 Between the U.S. Nuclear Regulatory Commission and FirstEnergy Nuclear Operating Company, Concerning Requests for Additional Information Pertaining to the Davis Besse Nuclear Power Station LRA
ADAMS Accession No. ML11348A021

*****
Davis-Besse: Schedule Revision for the Safety Review of the Davis-Besse Nuclear Power Station, Unit No. 1, License Renewal Application (TAC No. ME4640)
ADAMS Accession No. ML11353A015
*****
Davis-Besse: Request for Additional Information for the Review of the Davis-Besse Nuclear Power Station License Renewal Application (TAC No. ME4640).
ADAMS Accession No. ML11333A396
*****
Information Notice 2011-22, Instrumentation and Control Module Hardware, Configuration, and Procedure Issues, dated December 21, 2011,
ADAMS Accession No ML112500437
*****
Davis-Besse Nuclear Power Station, Unit No. 1 - Request for additional information regarding Davis-Besse license amendment request to modify the special visual inspection requirements of TS 5.5.8 SG Program –
ADAMS Accession no. ML113480146
*****
RIS 2011-02, Revision 1, Licensing Submittal Information and Design Development Activities For Small Modular Reactor Designs, dated December 27, 2011,
ADAMS Accession No ML112930188
*****
Davis-Besse: Summary of Telephone Conference Call Held on December 8, 2011, Between the U.S. Nuclear Regulatory Commission and FirstEnergy Nuclear Operating Company, Concerning RAIs Pertaining to the Davis-Besse Nuclear Power Station, LRA (TAC No. ME4640)
ADAMS Accession No. ML11355A095
*****

News

Regulators approve reopening nuke plant
Sunday December 4, 2011 6:14 AM
OAK HARBOR, Ohio (AP) — Federal regulators will allow a northwestern Ohio nuclear reactor to reopen after being satisfied that cracks discovered in concrete at the plant don't pose a safety concern.
The Nuclear Regulatory Commission said on Friday that the operator of the nuclear plant along Lake Erie has given them reasonable assurance that cracks found on the outside of the reactor containment building don't pose a safety threat.
The Davis-Besse plant near Toledo was shut down in October for installation of an 82-ton reactor head. Soon afterward, crews discovered a 30-foot hairline crack in the outer wall.
Plant operator FirstEnergy Corp. said it will closely monitor the containment building and try to learn what led to the cracks.
Columbus Dispatch

*****

NRC says Ohio plant with cracks is safe to run

Hannah Northey, E&E reporter

Published: Monday, December 5, 2011

Federal regulators Friday said the shuttered Davis-Besse nuclear power plant in northern Ohio is safe to restart even though the plant's operator is still investigating cracks in the plant's protective outer concrete wall.

The Nuclear Regulatory Commission said in a "confirmatory action letter" that FirstEnergy Nuclear Operating Corp. has provided "reasonable assurance" that cracks in the outer shield building do not compromise the safety of the single reactor at the site, about 20 miles east of Toledo, Ohio.

The 900-megawatt plant sits on the shores of Lake Erie and has been shut down since Oct. 1 for workers to replace a corroding lid or "head" for the reactor.

Workers cut a hole through the plant's 2-foot concrete shield building on Oct. 10 to begin replacing the lid and found a 30-foot crack in the shield building.

The concrete structure is surrounded by a steel containment vessel that protects the reactor from natural disasters, terrorist attacks and serves as a secondary containment system. Different types of cracks in the structure were discovered through later investigations (*Greenwire*, Nov. 18).

Prema Chandrathil, a spokeswoman for NRC, said the commission reviewed FirstEnergy's analysis of the cracks and found the shield building can withstand the force of flying objects, tornadoes and earthquakes.

But NRC also required FirstEnergy to evaluate why the cracks occurred and ordered the utility to monitor the fissures before and during scheduled fuel outages next year to see if they have changed or expanded. The company must also determine the "root cause" of the cracks and corrective actions by Feb. 28, 2012, and then provide a long-term monitoring program, Chandrathil said.

NRC has the authority to shut the plant down if it is not operating safely and can take additional regulatory action if FirstEnergy does not comply with the commission's orders, she said.

"We won't hesitate to take action if need be," Chandrathil said.

NRC will conduct its own review and is planning a public meeting for FirstEnergy to discuss its technical analysis and explain why the plant is safe to operate with cracks in the shield building. A date and place have yet to be determined.

Jennifer Young, a spokeswoman for FirstEnergy, said the company is restarting the plant but would not say when the plant will be fully operational.

But the cracks have raised safety concerns and fueled arguments that the plant should not be relicensed after its current permit expires in 2017. Young said the plant could be relicensed next year.

Rep. Dennis Kucinich (D-Ohio), who opposes relicensing the plant, asked NRC Chairman Gregory Jaczko in a Nov. 21 letter whether carbon dioxide was seeping through the concrete, corroding steel rebar in the shield building and expanding cracks.

"Cracking has been detected in 15 out of 16 of the 'wings' or 'shoulders' of the building, and discovered in other areas of the wall, all suggesting a delamination of the concrete, at the outermost rebar, caused by concrete carbonation," he said.

Delamination of concrete occurs when the metal corrodes and causes stress on the concrete, which results in a separation of the concrete from the metal.
Kucinich had also asked NRC to hold hearing on the cracks before allowing the plant to restart.
Source: http://www.eenews.net/Greenwire/2011/12/05/15
*****

Kucinich upset that nuclear plant can reopen
By John Seewer
ASSOCIATED PRESS
Tuesday December 6, 2011 7:23 AM
TOLEDO — A nuclear plant where cracks were found in protective concrete is being allowed to reopen despite unanswered questions about what happened, a congressman said yesterday.
The U.S. Nuclear Regulatory Commission and operators of the Davis-Besse plant near Toledo don't know what caused the cracks or whether it's a bigger problem, said U.S. Rep. Dennis J. Kucinich, an Ohio Democrat who has been a longtime critic of the plant and its owner.
Commission members on Friday signed off on restarting the plant after its owner gave them reasonable assurance that the cracks don't pose a threat. Regulators said they've done their own checks and reviewed testing that was already completed by plant operator FirstEnergy Corp.
The plant along Lake Erie was shut down in October for installation of an 82-ton reactor head, a steel lid that sits atop the reactor vessel. Soon afterward, crews discovered a 30-foot hairline crack in the outer wall and later found numerous tiny cracks.
The building's concrete shell is designed to protect the reactor from anything that might hit it from outside such as storm debris or an airplane.
The NRC has given FirstEnergy until the end of February to find out what caused the cracks.
A watchdog group, the Union of Concerned Scientists, questioned the soundness of the concrete and asked the commission to look into whether the walls were built to adequate engineering specifications.
The NRC said on Friday it was evaluating the walls.
Akron-based FirstEnergy has not said when it plans to restart the reactor, but it has maintained that the building's walls are safe.
Davis-Besse's license is set to expire in six years, and FirstEnergy has an application pending before the Nuclear Regulatory Commission to extend the operating license until 2037.
Columbus Dispatch
*****

Federal meeting slated on cracks at Davis-Besse
Tuesday, December 06, 2011
blade staff
OAK HARBOR, Ohio — A federal meeting about FirstEnergy's technical analysis of cracks in the concrete Shield Building at the Davis-Besse nuclear power plant has been scheduled for Dec. 15.

The Nuclear Regulatory Commission meeting, during which limited public questions to the agency will be allowed, is scheduled for 6 to 10 p.m. in the Camp Perry Clubhouse, 1000 Lawrence Rd., Building 600.
Top officials from the NRC, among them acting Regional Administrator Cynthia Pederson, and FirstEnergy Nuclear Operating Company, including Barry Allen, the site vice president at Davis-Besse, are slated to attend.
The federal commission Friday gave FirstEnergy permission to restart the plant, which had powered down Oct. 1 for replacement of its reactor head, while directing the utility to perform further study of the cracking concrete first discovered nine days later when a hole was cut through the Shield Building's wall for access into the reactor chamber.
U.S. Rep. Dennis Kucinich (D., Cleveland), who had urged the NRC to keep the plant offline until full review of the cracking issue was complete, Monday issued a statement protesting the agency's decision to allow the restart.
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The Toledo Times ®
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Troubled Ohio reactor had more cracks, FirstEnergy says
Published: Thursday, December 8, 2011

Regulators allowed an Ohio nuclear plant along Lake Erie to restart this week despite knowing about additional cracks near the top of the reactor's concrete shell, according to a plant spokesperson.
The Davis-Besse plant closed in October because of hairline cracks discovered near the base of the shell, which protects the reactor from outside debris. Last month, plant operator FirstEnergy Corp. found more cracks near the top and informed the U.S. Nuclear Regulatory Commission, company spokeswoman Jennifer Young said.
"At no point did we attempt to hide that," she said.
NRC allowed the plant to restart this week, giving FirstEnergy until the end of February to discover what caused the damage (*Greenwire*, Dec. 5).
U.S. Rep. Dennis Kucinich (D-Ohio), a plant opponent, criticized FirstEnergy, saying the company needs to release all the details it has about the cracks.
"FirstEnergy risks loss of public confidence if it continues to tell the people of Ohio one thing and the NRC another," Kucinich said in a statement.
Davis-Besse has shut down a few times in the past decade for other repairs, including between 2002 and 2004 for an acid leak that NRC called the worst corrosion ever discovered at a reactor in the United States. FirstEnergy paid $5.45 million in fines and $28 million in civil penalties for the leak (John Seewer, AP/ABC News, Dec. 8). **-- AP**
Source: http://www.eenews.net/Greenwire/2011/12/08/17
*****

DAVIS-BESSE
New cracks at Ohio nuclear plant known to regulators
By John Seewer
ASSOCIATED PRESS
Friday December 9, 2011 7:00 AM

TOLEDO — Federal regulators confirmed yesterday that they had been told by operators of a nuclear reactor about additional cracks found in the plant's concrete shell, which were discovered several weeks after workers initially discovered the concrete was cracked in other spots.

Details about the cracks near the top of the structure came to light publicly after officials from the office of U.S. Rep. Dennis J. Kucinich, D-Cleveland, said they spoke with the U.S. Nuclear Regulatory Commission.

Kucinich's office said it initiated talks with the NRC and investigated the issue, which revealed the cracks were more widespread at the Davis-Besse nuclear plant near Toledo than what was publicly released.

A spokeswoman for FirstEnergy Corp. said on Wednesday that the additional cracks were found in November, and that the company informed regulators right away. It previously had announced that cracks were found near the bottom of a wall designed to protect the reactor from anything that might hit it from the outside, such as storm debris.

The plant along Lake Erie was shut down for maintenance in October when workers found the first 30- foot hairline crack.

Other cracks were found soon after, leading to closer inspections that revealed cracks close to the top of the 224-foot-tall shield structure.

The NRC analyzed those additional cracks before allowing the plant to restart this week, said Viktoria Mitlyng, an agency spokeswoman.

Columbus Dispatch

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NRC majority endorses AP1000 reactor design

Hannah Northey, E&E reporter

Published: Friday, December 16, 2011

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Three of five members of the Nuclear Regulatory Commission voted this week to approve a new and revised advanced reactor design that could lead to the first plants being built in the United States in more than three decades.

NRC Chairman Gregory Jaczko and the two Democratic commissioners said they voted to approve Westinghouse Electric Co.'s AP1000 nuclear plant model that they say is safer and simpler than existing plants. The reactor design could be used in up to 12 proposed U.S. reactors, starting with Georgia and South Carolina.

"The combination of passive safety, severe accident, and defense-in-depth features gives me confidence that the AP1000 design is sufficiently safe," Jaczko said in the ballot he cast on Dec. 6 and announced this week.

The agreement of the chairman and two commissioners is a departure from the nasty feud between Jaczko and the four other commissioners. In Capitol Hill hearings this week, his colleagues have accused Jaczko of berating female staffers, withholding information from his colleagues and abusing his authority during emergencies -- allegations the chairman denies (*E&E Daily*, Dec. 15).

The infighting did not keep Jaczko from joining Commissioners William Magwood and George Apostolakis in approving a new advanced reactor design from Westinghouse, a subsidiary of Toshiba Corp. The company, they said, has shown the structure is sound and sufficiently addressed concerns about the plant's ability to withstand earthquakes and temperature shifts, they said (*Greenwire*, May 27).

The commission's two Republican commissioners, Kristine Svinicki and William Ostendorff, have not yet revealed how they will vote.

The votes won't be finalized until the agency meets Dec. 22 on the final certification rule, NRC spokesman Scott Burnell said.

The three NRC members who voted for the design applauded its simplicity and ability to maintain core cooling for at least 72 hours with little human intervention. During that time, plant operators could repair a plant damaged by natural disasters or other events and transport emergency equipment or fuel needed to continue cooling the reactors.

The silo-shaped design includes fewer electric pumps, valves, piping and other gadgets that could be knocked out during a natural disaster or terrorist attack, Westinghouse says. Instead, the AP1000 includes massive water storage tanks at the top of the structure that would open during an emergency and release water to cool the steel containment vessel that houses the reactors. At that point, gravity and convection would cool the plant until operators can safely shut it down, said Scott Shaw, a spokesman for Westinghouse.

Jaczko, Magwood and Apostolakis also rebuffed concerns of nuclear skeptics who question the reactor's ability to withstand extreme events like the earthquake and tsunami that struck Japan's Fukushima Daiichi nuclear complex in March. The design was first approved in 2006 but Westinghouse asked a year later to amend the model to address questions about the shield building and peak accident pressures expected within the reactor's containment.

Magwood said the AP1000's reliance on a passive safety system would have prevented similar problems. Jaczko agreed, saying the Westinghouse design meets the safety requirements of NRC's internal task force that reviewed the Japanese disaster.

NRC staff also addressed concerns that fell outside the agency's safety review, including whether the steel containment shell would rust as it did at FirstEnergy Nuclear Operating Corp.'s Beaver Valley plant in Ohio, Magwood said. "I find that the design of the AP1000, which provides for a three foot air gap between the liner and the shield

building, precludes the chain of events that led to the Beaver Valley corrosion," Magwood said.
If NRC approves the AP1000 design, the agency may decide within months to approve construction and operating licenses for plants in South Carolina and Georgia that would use the model, Shaw said.
Southern Co. hopes to receive two combined licenses to build and operate the $14 billion Vogtle Units 3 and 4 near Waynesboro, Ga., and South Carolina Electric & Gas Co. wants to use the design in two proposed reactors at its V.C. Summer station northwest of Columbia, S.C.
If approved, the licenses would be the first for new reactor construction since 1978 (*Greenwire*, Sept. 28).
Four plants that use the new AP1000 design are currently under construction in China with the first coming online in 2013, Shaw said. Overall, there are about 440 operating reactors using other AP1000 designs around the world, he said.
Click here for Magwood's vote.
Click here for Jaczko's vote.
Click here for Apostolakis' vote.

Source: http://www.eenews.net/Greenwire/2011/12/16/3
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Plant Reports

Power Reactor	Event Number: 47508
Facility: PERRY Region: 3 State: OH Unit: [1] [ ] [ ] RX Type: [1] GE-6 NRC Notified By: THOMAS MORSE HQ OPS Officer: JOHN KNOKE	Notification Date: 12/07/2011 Notification Time: 18:29 [ET] Event Date: 11/16/2011 Event Time: 20:00 [EST] Last Update Date: 12/07/2011
Emergency Class: NON EMERGENCY 10 CFR Section: 50.72(b)(3)(ii)(B) - UNANALYZED CONDITION	Person (Organization): RICHARD SKOKOWSKI (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

POSTULATED FLOODING SCENARIO RESULTS IN UNANALYZED CONDITION "On November 16, 2011, at 2000 hours (EST), control room operators accepted the

results of an immediate investigation related to the adequacy of a calculation related to the flooding analysis for service water piping in the control complex. The conclusions of the original analysis assumed operator actions to mitigate the flooding. The existing procedural guidance at that time lacked specificity for the required operator actions. This was identified as a non-conforming condition with respect to a USAR flooding analysis. The immediate investigation determined that significant margin exists for mitigation of the service water leakage crack compared to the 30 minute actions required in the original analysis. A preliminary strategy for flood mitigation was identified in the immediate investigation. Guidance was provided to the operators for a leak mitigation strategy in a night order, and a prompt functionality assessment was requested for the control complex building with respect to the flooding analysis. On November 22, 2011, at 1957 hours (EST), the prompt functionality assessment was accepted by the control room operators. The assessment included compensatory measures that simplified guidance for mitigating the flooding from the service water system. The compensatory measures were implemented. On December 2, 2011, the NRC Component Design Basis Inspection team debriefed that the condition identified should have been called in to the NRC Operations Center within eight hours and that missing the call was a violation of 10 CFR 50.72(b)(3)(ii)(B). On December 7, 2011, at 1320 hours (EST), a call was received from the NRC Region III informing the compliance supervisor that the eight-hour notification should still be made.

"The NRC Resident Inspector has been notified."

* * * UPDATE FROM CHARLES ELBERFELD TO JOHN KNOKE AT 1412 EST ON 12/10/11 * * *

The licensee added further clarification to the event reported above as follows:

"Given that an unanalyzed condition existed until the appropriate measures were implemented, an eight-hour call in accordance with the aforementioned section of 10 CFR 50.72 should have been made. After further consideration, station management decided the eight-hour call was missed and it is being reported as required.

"The NRC Resident Inspector has been notified." R3DO (Skokowski) notified.

*****

Power Reactor	Event Number: 47513
Facility: BEAVER VALLEY Region: 1 State: PA Unit: [1] [2] [ ] RX Type: [1] W-3-LP,[2] W-3-LP NRC Notified By: DAVID SHARBAUGH HQ OPS Officer: CHARLES TEAL	Notification Date: 12/05/2011 Notification Time: 09:35 [ET] Event Date: 12/05/2011 Event Time: 09:45 [EST] Last Update Date: 12/09/2011
Emergency Class: NON EMERGENCY 10 CFR Section:	Person (Organization): CHRISTOPHER CAHILL (R1DO)

50.72(b)(3)(xiii) - LOSS COMM/ASMT/RESPONSE	ERDS-PM ALEMU (E-MA) ERDS HELP DESK (E-MA)

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

Event Text

UNAVAILABILITY OF EMERGENCY RESPONSE DATA SYSTEM (ERDS) FOR SCHEDULED UPGRADE

"At approximately 0945 hours on December 5, 2011, the Beaver Valley Power Station Units 1 & 2 (BVPS) Emergency Response Data System (ERDS) electronic data link to the NRC will be taken out of service to implement planned system upgrades which include the improvements requested by Regulatory Information Summary 2009-13. The duration of the upgrade work is expected to be approximately 5 days.

"During the upgrade, the Emergency Response Data System (ERDS) data link to the NRC will not be available ERDS parameters will be available to be monitored by control board indications or plant computer systems. An emergency plan procedure has instructions for providing data to the NRC, if needed, when ERDS is out of service.

"This notification is being made in accordance with 10 CFR 50.72(b)(3)(xiii).

"The NRC Resident Inspector has been notified. An update will be provided when the ERDS data link to the NRC has been returned to service."

[The above report was originally logged by the NRC Headquarters Operations Officer at approximately 0935 on December 5, 2011 and was converted to an event report upon receipt of the updated information below]

* * * UPDATE FROM SHARBAUGH TO HUFFMAN ON 12/9/11 AT 0948 EST * * *

"Testing of the Beaver Valley Power Station Emergency Response Data System (ERDS) upgrade has been completed and the ERDS data link to the NRC has been returned to service. The NRC Resident has been notified."

R1DO (Cahill) notified. NRC ERDS Program Manager (Alemu) and ERDS Help Desk informed via e-mail.

*****

Power Reactor	Event Number: 47515

Facility: PERRY Region: 3 State: OH Unit: [1] [ ] [ ] RX Type: [1] GE-6 NRC Notified By: JAMES PRY HQ OPS Officer: JOHN KNOKE	Notification Date: 12/09/2011 Notification Time: 22:41 [ET] Event Date: 12/09/2011 Event Time: 18:35 [EST] Last Update Date: 12/10/2011
Emergency Class: NON EMERGENCY 10 CFR Section: 50.72(b)(3)(v)(B) - POT RHR INOP	Person (Organization): RICHARD SKOKOWSKI (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

PART 21 ISSUE WITH SEISMIC CLIPS ON RCIC SYSTEM CONTROLLERS RESULTS IN SYSTEM INOPERABILITY

"On December 7, 2011, a 10 CFR 21 report (reference NRC EN No. 47498) was received from a vendor for a defect with NUS Controllers. The defect involves spring clips that form part of the seismic restraints for the controllers. The controllers referenced in the report are installed for the Reactor Core Isolation Cooling (RCIC) system in the control room and remote shutdown panel. Based on initial information provided by the vendor, it was determined that the RCIC system remained operable. On December 9, 2011, additional information provided by the vendor did not support the immediate operability determination and the RCIC system was declared inoperable for Technical Specification (TS) Limiting Condition for Operation (LCO) 3.5.3 Condition A at 1835 hours [EST]. At 1932 hours [EST], the High Pressure Core Spray system was verified operable per TS LCO 3.5.3 Required Action A.1. TS LCO 3.5.3 Required Action A2 requires restoration of the RCIC system to operable status within 14 days. Qualified spring clips have been obtained and will be installed on the controllers. This condition is being reported in accordance with 10 CFR 50.72(b)(3)(v)(B) as a condition that at the time of discovery could have prevented the fulfillment of the safety function of a system needed to remove residual heat.

"The NRC Resident Inspector has been notified."

* * * UPDATE FROM CHARLES ELBERFELD TO JOHN KNOKE AT 1415 EST ON 12/10/11 * * *

"As a follow-up to the condition reported above, we have replaced the affected seismic clips on the controllers and the Reactor Core Isolation Cooling system is now operable as of 0734 on December 10, 2011.

"The NRC Resident Inspector has been notified." R3DO (Skokowski) notified.

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Power Reactor	Event Number: 47530
Facility: FERMI Region: 3 State: MI Unit: [2] [ ] [ ] RX Type: [2] GE-4 NRC Notified By: GEORGE PICCARD HQ OPS Officer: CHARLES TEAL	Notification Date: 12/16/2011 Notification Time: 16:37 [ET] Event Date: 12/16/2011 Event Time: 10:17 [EST] Last Update Date: 12/17/2011
Emergency Class: NON EMERGENCY 10 CFR Section: 50.72(b)(3)(xiii) - LOSS COMM/ASMT/RESPONSE	Person (Organization): BILLY DICKSON (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

LOSS OF SAFETY PARAMETER DISPLAY SYSTEM AND EMERGENCY RESPONSE DATA SYSTEM

"At 1017 EST on December 16, 2011, a loss of the Safety Parameter Display System (SPDS) and the Emergency Response Data System (ERDS) occurred due to a process computer malfunction. This loss in capability is being reported as a loss of assessment capability in accordance with 10 CFR 50.72(b)(3)(xiii).

"Indications of related plant variable are available in the Main Control Center. The Visual Annunciator System (VAS) remains functional. Meteorological and process effluent radiological monitor indications are available and dose assessment capability is available and tested functional.

"In the event of a plant emergency, the Emergency Plan can be implemented as assessment capabilities are available under alternate means."

The NRC Resident Inspector has been informed.

* * * UPDATE AT 0022 EST ON 12/17/11 FROM GROFF TO HUFFMAN * * *

"At 2235 EST on December 16, 2011, the Safety Parameter Display System (SPDS) and the Emergency Response Data System (ERDS) were restored following the correction of the process computer malfunction. This loss in capability was reported under a loss of assessment capability in accordance with 10 CFR 50.72(b)(3)(xiii). "

The licensee has notified the NRC Resident Inspector. R3DO (Dickson) notified.

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Power Reactor	Event Number: 47545
Facility: PERRY Region: 3 State: OH Unit: [1] [ ] [ ] RX Type: [1] GE-6 NRC Notified By: JAMES PRY HQ OPS Officer: JOHN KNOKE	Notification Date: 12/21/2011 Notification Time: 21:37 [ET] Event Date: 12/21/2011 Event Time: 13:59 [EST] Last Update Date: 12/21/2011
Emergency Class: NON EMERGENCY 10 CFR Section: 50.72(b)(3)(ii)(B) - UNANALYZED CONDITION	Person (Organization): PATTY PELKE (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

GROUNDWATER LEVEL MAY EXCEED DESIGN ASSUMPTIONS

"On December 21, 2011, at 1359 hours EST, it was determined that the test instruction for the weekly groundwater level readings contained non-conservative acceptance criteria. The test instruction acceptance criteria for groundwater level exceeds the initial assumptions used in the Updated Safety Analysis Report (USAR) Chapter 15 accident analysis for 'Postulated Radioactive Releases due to Liquid Containing Tank Failures.' The issue was identified during the conduct of a prompt functionality assessment evaluating the plant underdrain system performance and to ensure all USAR described functions were being met.

"The test instruction acceptance criteria is less than 575 feet. The calculation supporting the Chapter 15 accident analysis assumes an initial groundwater elevation of 568 feet in order to accumulate a sufficient volume of groundwater to dilute the tank inventory prior to exiting the underdrain system. The accumulation volume results in hold up time allowing for mixing and radioactive decay. With the degraded performance of the underdrain system pumps and high precipitation, the groundwater level had risen above 568 feet but was still less than 575 feet. A preliminary engineering evaluation has determined that significant margin exists in the calculation. A calculation revision is being pursued in parallel with this notification.

"Compensatory actions involving the repair of 1 permanent non-safety pump and installation of temporary pumps were previously initiated and the groundwater levels are decreasing. Restoration of the remaining permanent plant pumps continues.

"The NRC Resident Inspector has been notified."

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Agreement State	Event Number: 47535
Rep Org: OHIO BUREAU OF RADIATION PROTECTION Licensee: KRATON POLYMERS Region: 3 City: BELPRE State: OH County: License #: 31201850010 Agreement: Y Docket: NRC Notified By: KARL VON AHN HQ OPS Officer: JOE O'HARA	Notification Date: 12/20/2011 Notification Time: 08:14 [ET] Event Date: 12/19/2011 Event Time: 11:30 [EST] Last Update Date: 12/20/2011
Emergency Class: NON EMERGENCY 10 CFR Section: AGREEMENT STATE	Person (Organization): PATTY PELKE (R3DO) MICHELE BURGESS (FSME)

Event Text

AGREEMENT STATE REPORT - SHUTTER FAILURE ON OHMART SH-100 PROCESS GAUGE

"At 11:30 AM December 19, 2011, the licensee's radiation safety officer provided a 24-hour telephone report notification of a shutter failure on a gauge. The gauge involved was an Ohmart SH-100, serial number 70230, containing 10 mCi of CS-137, with an assay date of Aug 1981. The shutter mechanism is a lead block screwed to a sliding aluminum plate. The licensee was removing the gauge from its mounting to replace it with a different new gauge as permitted by their license. When the licensee removed the gauge from its mounting, the lead block separated from the aluminum plate. The licensee replaced the lead shielding and secured it in place. The licensee secured the gauge from unauthorized access and will return it to the manufacturer for disposal with other gauges they are replacing. The licensee states that no personnel received radiation doses during this event."

Ohio Report #OH110005

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Fukushima Update

Japan releases 40-year nuke plant cleanup plan

Associated Press *By MARI YAMAGUCHI | AP – 1 hr 57 mins ago*

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FILE - In this March 12, 2011 file photo released by Tokyo Power Electric Co., the Fukushima Dai-ichi nuclear power plant's Unit 1 is seen after an explosion in Okumam, Fukushima prefecture, Japan.

TOKYO (AP) — Japan's government said Wednesday that it could take 40 years to clean up and fully decommission a nuclear plant that went into meltdown after it was struck by a huge tsunami.

Nuclear crisis minister Goshi Hosono suggested that the timetable was ambitious, acknowledging that decommissioning three reactors with severely melted fuel plus spent fuel rods at the Fukushima Dai-ichi plant was an "unprecedented project," and that the process was not "totally foreseeable."

"But we must do it even though we may face difficulties along the way," Hosono told a news conference.

Under a detailed roadmap approved earlier Wednesday following consultation with experts and nuclear regulators, plant operator Tokyo Electric Power Co. will start removing spent fuel rods within two to three years from their pools located on the top floor of each of their reactor buildings.

After that is completed, TEPCO will start removing the melted fuel, most of which is believed to have fallen to the bottom of the core or even down to the bottom of the larger, beaker-shaped containment vessel, a process that is expected to begin in 10 years and completed 25 years from now. The location and conditions of the melted fuel is not exactly known.

That's more than twice as long as it took to remove the fuel from the Unit 2 reactor at Three Mile Island that suffered a partial meltdown in 1979.

Trade Minister Yukio Edano promised that authorities would ensure safety at the plant. He also vowed to pay attention to the concerns of tens of thousands of residents

displaced when the plant was knocked out by Japan's March 11 earthquake and tsunami, spawning the world's worst nuclear crisis since the Chernobyl accident in 1986.

"We must not allow the work toward decommissioning to cause any new risks or delay the return of the residents to their homes," he said.

Completely decommissioning the plant would require five to 10 more years after the fuel debris removal, making the entire process up to 40 years, according to the roadmap.

The roadmap for Fukushima is twice as long the time set aside to decommission the Tokai Power Station, the country's first commercial reactor that stopped operation in 1998.

The process still requires the development of robots and technology that can do much of the work remotely because of extremely high radiation levels inside the reactor buildings. Officials say they are aiming to have such robots by 2013 and start decontaminating the reactor buildings in 2014.

The operator and the government would also have to ensure a stable supply of workers and save them from exceeding exposure limits while keeping the long process going.

They also have to figure out ways to access each containment vessel and assess the extent of damage, as well as locate holes and cracks through which cooling water is leaking and flooding the area.

The decades-long process also would place an enormous financial burden on TEPCO. The ministers said that the total cost estimate cannot be provided immediately, but promised that there will be no delay because of financial reasons.

Prime Minister Yoshihiko Noda announced last Friday that the plant has achieved "cold shutdown conditions," meaning the plant had been brought to stability in the nine months since the accident.

The announcement officially paves the way for a new phase that will eventually allow some evacuees back to less-contaminated areas currently off limits.

Experts say the plant 140 miles (230 kilometers) northeast of Tokyo is running with makeshift equipment and remains vulnerable to cold weather and earthquakes.

Another problem is huge volume of radioactive waste and debris that will come out of the plant during its dismantling process. Officials said they have not decided what to do with them and that part is not covered by the 40-year roadmap.

"We still need to discuss what to do with the waste, including development of such technology," said Koichi Noda, a trade ministry official in charge of nuclear accident cleanup.

The two ministers acknowledged that they may not be even around to see the decommissioning process through the end.

"I will take responsibility as a person and get involved in this as long as I live," Edano said.

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Fukushima decommissioning will take 40 years
Published: Wednesday, December 21, 2011

It will take up to 40 years to decommission Japan's Fukushima Daiichi nuclear power plant, including 25 years to collect nuclear fuel that has melted inside the plant's reactors, according to the Japanese government.
The estimate for the fuel removal alone is more than double the amount of time it took to complete a similar task at Three Mile Island's No. 2 unit, which suffered a less-severe partial meltdown in 1979.
Tokyo Electric Power Co. (TEPCO), the operator of the plant, has said it will take 10 years just to prepare to remove the fuel contained in Fukushima's three damaged reactors. Immediate tasks include repairing the reactor containment structures and emptying the spent fuel pool for possible later storage of damaged fuel.
The biggest challenge will likely be the work of draining thousands of tons of irradiated water from the basements of the reactor buildings. The buildings' foundations sustained cracks during the March 11 earthquake and are now at risk of leaking contaminated water into the ocean.
If these cracks cannot be plugged, workers will not be able to fill the containment structures with water, which helps block the spread of radiation.
Goshi Hosono, the minister overseeing the nuclear crisis, said the government will make sure TEPCO has sufficient funds to fully decommission the plant.
"The government sees it as its responsibility to provide enough financial support to TEPCO" to make sure the plant will be decommissioned safely, Hosono said at a press conference.
The announcement follows a joint statement last week from the government and TEPCO that Fukushima is now under control and is not in danger of a major disaster (*Greenwire*, Dec. 16; Mitsuru Obe, *Wall Street Journal*, Dec. 21). **-- PK**
Source: http://www.eenews.net/Greenwire/2011/12/21/26