

To: Jim Mehl, ERSIS Manager  
From: Zack Clayton, Rad Coordinator  
Subject: February Monthly Report  
Date: March 1, 2016

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## Beans

Training: 3  
Drills: 0  
Meetings: 4  
Technical Assistance: 3  
Public Assistance: 1

Web Page Views: There were 40 page views in February.

Radiological Safety Program Pages: <http://epa.ohio.gov/derr/ersis/er/rad.aspx>

## Coming Attractions

3/2 IREP Intermediate Phase  
3/2 IREP NPWG  
3/3 IREP Tech  
3/9 IREP  
3/15 Beaver Valley Systems training  
3/30 IREP Non Power Planning  
  
4/11 URSB  
4/12-14 RAT Training At Lake County  
4/14 NEPAC  
5/17 Beaver Valley Full Scale Dry Run  
6/14 Beaver Valley Full Scale Evaluated Exercise

## Facility updates

### **Davis-Besse Nuclear Power Station**

Davis-Besse restarted and synchronized to the grid early on February 2, and operated at full power for the rest of the month. The plant is in its coast down to a Refueling Outage so full power is not 100% and decreases slightly each day.

The plant was testing and the RCS channels were put in bypass. A breaker short in one of the channels put the plant into an outage and then the main generator alarmed for a short. General Electric technicians came and performed maintenance on the generator and it is back in service, as of February 4 the plant was at 95% power.

### **Perry Nuclear Power Plant**

Perry Started the month synchronized to the grid after the January maintenance outage for a leak in the dry well.

On February 8 the Perry Nuclear Power Plant was manually scrammed by the plant operators. This was necessary because two of the safety relief valves opened and caused the temperature in the suppression pool to increase. What caused the safety relief valves to open is under investigation. GE (manufacturer) representatives were on-site by February 10 to help trouble shoot the associated systems. See Event No. 51716.

On February 10, about 3:00 pm, Perry lost Division 1 shutdown cooling. Shutdown cooling was recovered in approximately 40 minutes. A 10CFR50.72 NRC event notification is being prepared. The event cause was traced to a blown fuse. The plant was in a stable and safe condition due to the Safety shut down valve investigation. The two events are not believed to be related. This briefly delayed the intended Reactor plant restart until Friday afternoon, February 12. See Event 51729.

### **Beaver Valley Power Station**

On February 5, 2015 at 0109, the Control Room Emergency Ventilation System (CREVS) was declared inoperable due to a higher than allowed identified in-leakage rate for the Control Room Envelope (CRE) when in the Normal Operating Mode. Unit 1 remains at 100 percent power and Unit 2 remains in Mode 3 for an unrelated planned maintenance outage. Unit 1 and Unit 2 share a common CRE. The plant is taking steps to correct this problem. This in-leakage was detected during additional testing following the event documented in EN #51584. Current notice is Event No. 51712.

Unit 1 remains at 100% power production.

### **Beaver Valley Unit I**

Unit I operated at full power for the month.

### **Beaver Valley Unit II**

Unit II shut down for turbine maintenance February 3. Turbine monitoring had been indicating problems and the trending made the choice for an outage for maintenance now better than waiting for a spring outage. Unit II exited the outage February 12. There were no emergent radiological or safety concerns during the outage.

## **DTE**

### **Fermi II**

Fermi II operated at full power until the 28<sup>th</sup> when it down powered to 60%.

On February 21, 2015, at approximately 0030 EST, with Fermi 2 in Mode 1 operating at 100 percent reactor thermal power, the West Turbine Bypass Valve (TBV) automatically opened in response to the number two High Pressure Turbine Stop Valve (TSV) cycling from full open to closed and then to 22 percent open. Reactor power was subsequently lowered to 91.5 percent reactor thermal power and the bypass valve closed. TBVs must remain shut while reactor thermal power is at or above 29.5 percent to consider the TSV closure and Turbine Control Valve (TCV) fast closure Reactor Protection System (RPS) functions operable. See Event 51756, and related Events 51755 and 51391.

### **Fermi III**

There was no activity reported for Fermi III

## **Portsmouth Enrichment Plant**

There was no activity reported for the Portsmouth site.

## **Activity**

- 2/3 IREP Intermediate Phase Reviewed the objectives and process steps to meet the objectives for 2016. In developing a sampling plan USEPA documents EPA QA/G-5S and EPA QA/G-4 were set out along with OEPA DERR "Data Quality Objectives Process Summary" DERR-00-DI-32. The SAM-940 Gamma Spec is probably useable but will only give direct DRL information on I-131 and Cs-137. Several work arounds to this are available. EPA may need to write in Sampling Expertise from the site coordinators in DERR and DMWM to select areas of interest and a sampling scheme for the RAT to fulfill.
  
- 2/3 IREP NPWG Initiative review and updates, exercise and agency updates, upcoming activities and set new task updates.

2/4 NEPAC NUREG 0654 Rev. 2 is due for release “real soon now” probably between January and December of 2017. FENOC is using results from the NEI-1005 Staffing Study to compile a fleet Common Emergency Plan. The study was to identify and prevent overlapping job functions out to 120 minutes after an event. FENOC is hanging back to see lessons learned from other plants that tried to use the study for a workforce reduction argument – rejected by NRC. This is to bring the three plant’s response under a common scheme. It will be a 1 to 1½ year license amendment. The Ottawa RRR exercise will be in 2019.

Regarding the Flint lead in the water issues, FEMA indicated the trend seems to be going toward following and meeting the regulations is not enough. They are a floor to be met and exceeded, not a ceiling to stop at. This will probably be applied in many areas, including REP and other radiation response.

2/10 IREP - Agency updates and committee reports. Ohio EMA Rad Branch presented information on the Preventative Radiological and Nuclear Detection Program (PRND). This program will be used in conjunction with the State hosting the Republican National Convention. ODH presented draft documents on IREP organization and making it a more formal group. There was discussion of the Beaver Valley exercise for June.

2/11 New User RadResponder call – an excellent overview of how to use the app and what is new for previous users.

2/11 Train the Trainer pre-session call – This was to ensure that all participants in the TtT session had access, permissions, and login credentials. Some basic background was also covered for newer users.

2/17 RadResponder Train the Trainer Very good training course for use of RadResponder with 4 agencies and 37 participants. Ohio EPA had 8 RAT members in attendance.

## Office Issues

Need to order Bluetooth kits and two 2241-3s for RAT.

## Statistics, NRC Reports, News, and ADAMS References

### Operating Power Levels

February

Date BV1 BV2 DB Perry Fermi2

1	100	100	14	8	100	
2	100	100	20	60	100	
4	100	0	95	96	100	BV2 mid cycle turbine maintenance
8	100	0	96	100	100	
9	100	0	95	0	100	Perry Safety relief valves opened
12	100	17	95	0	100	
13	100	96	95	4	100	
15	100	100	95	24	100	
22	100	100	90	100	100	DB in coast down to RFO
28	100	100	86	100	80	
29	100	100	85	100	60	

## Event Reports

Power Reactor	Event Number: 51696
Facility: DAVIS BESSE Region: 3 State: OH Unit: [1] [ ] [ ] RX Type: [1] B&W-R-LP NRC Notified By: THOMAS PHILIPS HQ OPS Officer: DONG HWA PARK	Notification Date: 01/29/2016 Notification Time: 16:43 [ET] Event Date: 01/29/2016 Event Time: 13:22 [EST] Last Update Date: 01/29/2016
Emergency Class: NON EMERGENCY 10 CFR Section: 50.72(b)(2)(iv)(B) - RPS ACTUATION - CRITICAL 50.72(b)(3)(iv)(A) - VALID SPECIF SYS ACTUATION	Person (Organization): BILLY DICKSON (R3DO) SCOTT MORRIS (NRR) JEFFERY GRANT (IRD)

Unit	SCRAM Code	RX CRIT	Initial PWR	Initial RX Mode	Current PWR	Current RX Mode
1	A/R	Y	100	Power Operation	0	Hot Standby

### Event Text

#### AUTOMATIC REACTOR TRIP DUE TO REACTOR PROTECTION SYSTEM ACTUATION

"At 1322 EST, with the unit operating at approximately 100% full power, an automatic reactor trip occurred due to actuation of Reactor Protection System (RPS) Channel 4. The cause of the RPS actuation is being investigated at this time. Nuclear Instrumentation calibration for RPS Channel 2 was in progress at the time of the trip, with Channel 2 in bypass and Channel 1 in trip. All control rods fully inserted. Immediately post trip, the Steam Feedwater Rupture Control System actuated due to high Steam Generator 1 level due to unknown causes. The Main Steam Isolation Valves closed and Auxiliary Feedwater started as expected. Secondary side relief valves lifted in response to the trip, with two of the relief valves (one on each header) not properly reseating until operators manually lowered Main Steam Header pressure. The Bayshore 345 kV Offsite Electrical Distribution Circuit automatically isolated at the time of the unit trip. This was unexpected. The remaining offsite circuits remain in service.

"The unit is currently in Mode 3 (Hot Standby) and stable, at approximately 550 degrees F and 2155 psig. Steam is being discharged through the Atmospheric Vent Valves for decay heat removal. There is no known primary to secondary leakage, and all safety systems functioned as expected.

"Both primary Source Range nuclear instruments automatically energized, however, they were previously declared inoperable due to an administrative issue. Both Source Range instruments are functional and indicating properly. Both alternate Source Range instruments are operable, and all required Technical Specification actions have been completed.

"The NRC Resident Inspector has been notified of the event."

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Power Reactor	Event Number: 51702
Facility: DAVIS BESSE Region: 3 State: OH Unit: [1] [ ] [ ] RX Type: [1] B&W-R-LP NRC Notified By: MARK HELLE HQ OPS Officer: STEVE SANDIN	Notification Date: 01/30/2016 Notification Time: 07:32 [ET] Event Date: 01/30/2016 Event Time: 01:23 [EST] Last Update Date: 01/30/2016
Emergency Class: NON EMERGENCY 10 CFR Section: 50.72(b)(3)(iv)(A) - VALID SPECIF SYS ACTUATION	Person (Organization): BILLY DICKSON (R3DO)

Unit	SCRAM Code	RX CRIT	Initial PWR	Initial RX Mode	Current PWR	Current RX Mode
1	N	N	0	Hot Standby	0	Hot Standby

**Event Text**

**UNANTICIPATED SFRCS ACTUATION WHILE RESTORING MAIN FEEDWATER TO STEAM GENERATORS**

"At 0123 EST, with the unit shutdown in Mode 3 (Hot Standby), during the performance of procedure DB-OP-06910, 'Trip Recovery,' while attempting to restore main feedwater to the Steam Generators, Davis-Besse received a Steam Feedwater Rupture Control System (SFRCS) 'reverse delta pressure' signal to the Auxiliary Feedwater System (AFW). The Auxiliary Feedwater System was operating at the time, feeding the Steam Generators.

"The SFRCS signal did result in actuation/closure [of] several valves in the Main Steam System, as the SFRCS signal is designed to do. This SFRCS signal/valve actuation was not anticipated.

"The unit remained in Mode 3 and is stable. This actuation did not have any negative impact to the AFW system and the ability to feed the steam generators.

"The NRC Resident Inspector has been notified of the event."

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Part 21	Event Number: 51643
Rep Org: FISHER CONTROLS INTERNATIONAL Licensee: FISHER CONTROLS INTERNATIONAL Region: 3 City: MARSHALLTOWN State: IA County: License #: Agreement: Y Docket: NRC Notified By: GEORGE BAITINGER HQ OPS Officer: JEFF ROTTON	Notification Date: 01/08/2016 Notification Time: 16:25 [ET] Event Date: 11/11/2015 Event Time: [CST] Last Update Date: 02/02/2016
Emergency Class: NON EMERGENCY 10 CFR Section: 21.21(a)(2) - INTERIM EVAL OF DEVIATION	Person (Organization): ANTHONY DIMITRIADIS (R1DO) ANTHONY MASTERS (R2DO) KARLA STOEDTER (R3DO) VIVIAN CAMPBELL (R4DO) PART 21/50.55 REACTO (EMAI)

#### Event Text

#### PART 21 - COMMERCIAL GRADE CAP SCREWS PROVIDED WITH SAFETY RELATED FISHER TYPE 3570 POSITIONERS

The following information was provided by the reporting organization via fax:

"Pursuant to 10 CFR 21.21(a)(2), Fisher Controls International LLC ('Fisher') is providing required written interim notification of a failure to comply concerning Type 3570 positioners when provided as safety-related equipment.

"On November 11, 2015, Fisher became aware of an issue with the dedication of a Type 3570 positioner. When replacement Type 3570 positioners are ordered, the two cap screws (SAE J429 Grade 5 cap screws/size 3/8-16x1.5) used for mounting the positioner to the actuator cylinder are also included. It was not clearly communicated to the end user that these mounting cap screws are included with the positioner. Further, the dedication plan only addresses the 3570 positioner and does not include dedication of the mounting cap screws.

"As a result, these cap screws had not been dedicated on any safety-related Type 3570 positioner orders. There is no reason to believe any of the cap screws supplied were defective, only that they were not dedicated and were therefore supplied as commercial grade items. There have been no reported failures of the cap screws in question.

"An extent-of-condition investigation is underway to identify all potentially affected bolt-on accessories. Any identified affected products will be reported per the requirements of 10 CFR 21.21 (b). This extent-of-condition review is expected to be completed by January 29, 2016.

"Corrective Action 1791 has been opened to document corrective actions taken to prevent recurrence.

"Should there be any further questions concerning this matter, please contact Benjamin Ahrens, Manager, Quality by email at Benjamin.Ahrens@Emerson.com or via phone at 641-754-2249.

Individual informing the NRC: Chad Engle, Director, Nuclear Business Unit, Fisher Controls International LLC, phone (641) 754-3011.

\* \* \* UPDATE FROM GEORGE BAITINGER TO HOWIE CROUCH VIA FAX AT 1528 EST ON 2/2/16 \* \* \*

The following information is summarized from a fax received from Emerson Process Management (Fisher Controls):

On January 22, 2016, Fisher Controls completed their extent-of-condition investigation and determined that seven of their thirty two product series have the potential to include non-dedicated cap screws and mounting studs.

The vendor plans to complete their final report within 45 days.

Notified R1DO (Rogge), R2DO (Musser), R3DO (Kozak), R4DO (Pick) and the Part 21 group via email.

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Power Reactor	Event Number: 51712
Facility: BEAVER VALLEY Region: 1 State: PA Unit: [1] [2] [ ] RX Type: [1] W-3-LP,[2] W-3-LP NRC Notified By: JAMES SCHWER HQ OPS Officer: JOHN SHOEMAKER	Notification Date: 02/05/2016 Notification Time: 03:49 [ET] Event Date: 02/05/2016 Event Time: 01:09 [EST] Last Update Date: 02/05/2016
Emergency Class: NON EMERGENCY 10 CFR Section: 50.72(b)(3)(v)(D) - ACCIDENT MITIGATION	Person (Organization): JOHN ROGGE (R1DO)

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	N	0	Hot Standby	0	Hot Standby

**Event Text**

**EXCESSIVE CONTROL ROOM IN-LEAKAGE IDENTIFIED**

"On February 5, 2015 at 0109 EST, the Control Room Emergency Ventilation System (CREVS) was declared inoperable due to a higher than allowed identified in-leakage rate for the Control Room Envelope (CRE) when in the Normal Operating Mode. Unit 1 remains at 100 percent power and Unit 2 remains in Mode 3 for an unrelated planned maintenance outage. Unit 1 and Unit 2 share a common CRE.

"This in-leakage was detected during additional testing following the event documented in EN #51584.

"At the time of discovery, there is a reasonable expectation this condition could prevent the fulfillment of the safety function of a system that is required to mitigate the consequences of an accident, thus satisfying the reporting criteria for 10CFR50.72(b)(3)(v)(D).

"Actions to implement mitigating actions were immediately initiated in accordance with Technical Specification 3.7.10. CREVS has been placed in Recirculation Ventilation Mode, isolating the control room from outside air.

"The NRC Senior Resident Inspector has been notified of the condition."

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Power Reactor	Event Number: 51716
Facility: PERRY Region: 3 State: OH Unit: [1] [ ] [ ] RX Type: [1] GE-6 NRC Notified By: MICHAEL DOTY HQ OPS Officer: DONALD NORWOOD	Notification Date: 02/08/2016 Notification Time: 17:50 [ET] Event Date: 02/08/2016 Event Time: 15:03 [EST] Last Update Date: 02/08/2016
Emergency Class: NON EMERGENCY 10 CFR Section: 50.72(b)(2)(iv)(B) - RPS ACTUATION - CRITICAL	Person (Organization): DAVID HILLS (R3DO)

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

**Event Text**

**MANUAL REACTOR SCRAM FOLLOWING SPURIOUS OPENING OF TWO SAFETY RELIEF VALVES**

"At 1500 EST on February 8, 2016, two safety relief valves (SRV) opened upon a spurious Division 2 initiation signal. This caused suppression pool temperature to increase. At 1503 EST, plant operators took action to manually SCRAM the reactor at 95 degrees Fahrenheit in the suppression pool per plant procedures. The SRVs closed immediately following the scram at 1503 EST. The cause of the SRVs opening is currently under investigation.

"During the scram, all rods fully inserted into the core. Reactor Pressure is stable with decay heat being removed via turbine bypass valves to the main condenser. Reactor level control is currently being maintained via feedwater. Main Steam Isolation Valves are open. Cool down and depressurization to Mode 4 to follow. The plant is in a normal post SCRAM electrical line-up."

The licensee notified the NRC Resident Inspector.

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Power Reactor	Event Number: 51729
Facility: PERRY Region: 3 State: OH Unit: [1] [ ] [ ]	Notification Date: 02/11/2016 Notification Time: 19:38 [ET] Event Date: 02/11/2016

RX Type: [1] GE-6 NRC Notified By: TONY KLEDZIK HQ OPS Officer: DONALD NORWOOD	Event Time: 15:04 [EST] Last Update Date: 02/11/2016
Emergency Class: NON EMERGENCY 10 CFR Section: 50.72(b)(3)(iv)(A) - VALID SPECIF SYS ACTUATION	Person (Organization): DAVID HILLS (R3DO)

Unit	SCRAM Code	RX CRIT	Initial PWR	Initial RX Mode	Current PWR	Current RX Mode
1	N	N	0	Cold Shutdown	0	Cold Shutdown

### Event Text

#### AUTOMATIC START OF EMERGENCY DIESEL GENERATOR AND LOSS OF SHUTDOWN COOLING

"At 1504 EST on February 11, 2016, with the plant shutdown in a forced outage, the Division 1, 4.16 Kv Safety Bus (EH11) lost power. Division 1 Shutdown Cooling was in service at the time and the Division 1 Shutdown Cooling pump A tripped. The Division 1 Emergency Diesel Generator (EDG) started and loaded EH11 as designed. However, the Emergency Service Water (ESW) A pump, which supplies cooling water to the EDG did not start. Due to the absence of cooling water to the EDG, operators took manual action to secure the Division 1 EDG. Division 2 Shutdown Cooling was operable during this transient and was subsequently started. The Division 1 Shutdown Cooling common suction isolation valve (1E12F0008) had previously been de-energized in the open position to support planned maintenance. The Division 2 Shutdown Cooling isolation valve was not affected by the loss of bus EH11. Shutdown Cooling was re-established at 1544 EST using the Division 2 Shutdown Cooling pump. Reactor coolant temperature rose from approximately 89 degrees Fahrenheit to 115 degrees Fahrenheit during the event. The cause of the loss of EH11 and subsequent failure of ESW A pump to start are currently under investigation.

"This event is being reported under 10 CFR 50.72(b)(3)(iv)(A) as a specific system actuation due to the auto start of the Division 1 EDG on a valid signal.

"The plant remains shutdown with Division 2 Shutdown Cooling in operation. The plant is in a normal electrical line up with the exception of bus EH11 being de-energized."

The licensee notified the NRC Resident Inspector.

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Part 21	Event Number: 51743
Rep Org: NUCLEAR LOGISTICS INC Licensee: NUCLEAR LOGISTICS INC Region: 4 City: FORT WORTH State: TX County: License #: Agreement: Y Docket: NRC Notified By: TRACY BOLT	Notification Date: 02/18/2016 Notification Time: 18:29 [ET] Event Date: 02/18/2016 Event Time: [CST] Last Update Date: 02/18/2016

HQ OPS Officer: STEVEN VITTO	
Emergency Class: NON EMERGENCY 10 CFR Section: 21.21(a)(2) - INTERIM EVAL OF DEVIATION	Person (Organization): GLENN DENTEL (R1DO) SHANE SANDAL (R2DO) ROBERT ORLIKOWSKI (R3DO) GREG WERNER (R4DO) PART 21/50.55 REACT (EMAI)

**Event Text**

**PART 21 - CONTACTOR MAKING NOISE**

The following was received via fax:

"Initial notification of a potential 10 CFR Part 21 condition.

"Pursuant to the rules of 10 CFR 21.21 this initial notification is being submitted to the NRC to identify a potential reportable condition that is currently under evaluation.

"FPL [Florida Power & Light] Turkey Point has identified a contactor that was making a considerable amount of noise that was not expected. The unit was continuing to functionally operate, however the source of the noise is cause for investigation.

"The contactors are a non-standard Size 3 and Size 4 Freedom Series Starter/Contactor. These units are currently under evaluation and review by NLI [Nuclear Logistics Inc.] to determine the root cause of the identified condition to determine if the contactor contains a defect.

"To date there have been no reported failures of this item to perform the intended safety function. These components were first supplied in September 2002 to Duke Oconee with no reported issues identified. The units reported by FPL Turkey point were supplied in May and December 2011. They have been installed into other facilities including the Duke Shearon Harris plant in December 2013. Although the increased noise is undesirable, it is not presenting a significant condition adverse to quality that could create a substantial safety hazard. Preliminary testing has confirmed that the safety related performance characteristics have not been degraded. However, due to the number of utilities which may have these components in service, this notification is being submitted to identify the condition to the industry.

"NLI plans to have the completed report submitted by 3/15/2016."

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Power Reactor	Event Number: 51755
Facility: FERMI Region: 3 State: MI Unit: [2] [ ] [ ] RX Type: [2] GE-4 NRC Notified By: DEREK ETUE HQ OPS Officer: JOHN SHOEMAKER	Notification Date: 02/25/2016 Notification Time: 16:35 [ET] Event Date: 01/06/2016 Event Time: 15:14 [EST] Last Update Date: 02/25/2016
Emergency Class: NON EMERGENCY 10 CFR Section:	Person (Organization): ANN MARIE STONE (R3DO)

50.72(b)(3)(v)(A) - POT UNABLE TO SAFE SD	
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Unit	SCRAM Code	RX CRIT	Initial PWR	Initial RX Mode	Current PWR	Current RX Mode
2	N	Y	100	Power Operation	91	Power Operation

**Event Text**

POWER REDUCTION DUE TO AUTOMATIC OPENING OF THE TURBINE BYPASS VALVES

"On January 6, 2016. at approximately 1514 EST, with Fermi 2 in Mode 1 operating at 100 percent reactor thermal power, the East and West Turbine Bypass Valves (TBVs) automatically opened for 3 minutes and 32 seconds in response to the number one High Pressure Turbine Stop Valve (TSV) drifting from full open to 25% open. Reactor power was subsequently lowered to 91.0 percent reactor thermal power and the bypass valves closed.

"Per Technical Specification Bases 3.3.1.1, TBVs must remain shut while reactor thermal power is at or above 29.5 percent to consider the TSV closure and Turbine Control Valve (TCV) fast closure Reactor Protection System (RPS) functions operable. The condition was recognized at the time of the event and the RPS functions were not declared inoperable since the functions were verified to remain enabled.

"Since the RPS functions were not declared inoperable, Fermi 2 did not report this event within 8 hours of occurrence. However, after further evaluation, it was determined that this event met the reporting criterion. Accordingly, this event is being reported pursuant to 10 CFR 50.72(b)(3)(v)(A).

"The licensee informed the NRC Resident Inspector."

The cause of the High Pressure Turbine Stop Valve drifting was due to an actuator malfunction that has since been corrected.

This event was determined to be reportable at 1200 EST on 02/24/16. See EN #51756 for a similar event that occurred on 02/21/16.

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Power Reactor	Event Number: 51756
Facility: FERMI Region: 3 State: MI Unit: [2] [ ] [ ] RX Type: [2] GE-4 NRC Notified By: DEREK ETUE HQ OPS Officer: JOHN SHOEMAKER	Notification Date: 02/25/2016 Notification Time: 16:35 [ET] Event Date: 02/21/2016 Event Time: 00:30 [EST] Last Update Date: 02/25/2016
Emergency Class: NON EMERGENCY 10 CFR Section: 50.72(b)(3)(v)(A) - POT UNABLE TO SAFE SD	Person (Organization): ANN MARIE STONE (R3DO)

Unit	SCRAM	RX CRIT	Initial	Initial RX Mode	Current	Current RX Mode
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	Code		PWR		PWR	
2	N	Y	100	Power Operation	91	Power Operation

**Event Text**

**POWER REDUCTION DUE TO AUTOMATIC OPENING OF A TURBINE BYPASS VALVE**

"On February 21, 2015, at approximately 0030 EST, with Fermi 2 in Mode 1 operating at 100 percent reactor thermal power, the West Turbine Bypass Valve (TBV) automatically opened in response to the number two High Pressure Turbine Stop Valve (TSV) cycling from full open to closed and then to 22 percent open. Reactor power was subsequently lowered to 91.5 percent reactor thermal power and the bypass valve closed.

"Per Technical Specification Bases 3.3.1.1, TBVs must remain shut while reactor thermal power is at or above 29.5 percent to consider the TSV closure and Turbine Control Valve (TCV) fast closure Reactor Protection System (RPS) functions operable. The condition was recognized at the time of the event and the RPS functions were declared inoperable. The Limiting Condition for Operation was exited at 0031 EST following TBV closure.

"Since the RPS functions were verified to remain enabled, Fermi 2 did not report this event within 8 hours of occurrence. However, this event was subsequently determined to meet the reporting criterion and is being reported pursuant to 10 CFR 50.72(b)(3)(v)(A).

"The licensee informed the NRC Resident Inspector."

The cause of the High Pressure Turbine Stop Valve cycling was due to a communication card failure that has since been corrected.

This event was determined to be reportable at 1200 EST on 02/24/16. See EN #51755 for a similar event that occurred on 01/06/16.

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Power Reactor	Event Number: 51391
Facility: FERMI Region: 3 State: MI Unit: [2] [ ] [ ] RX Type: [2] GE-4 NRC Notified By: CHRIS ROBINSON HQ OPS Officer: JEFF HERRERA	Notification Date: 09/14/2015 Notification Time: 02:46 [ET] Event Date: 09/13/2015 Event Time: 23:05 [EDT] Last Update Date: 02/27/2016
Emergency Class: NON EMERGENCY 10 CFR Section: 50.72(b)(2)(iv)(B) - RPS ACTUATION - CRITICAL 50.72(b)(3)(v)(C) - POT UNCNTRL RAD REL 50.72(b)(3)(iv)(A) - VALID SPECIF SYS ACTUATION	Person (Organization): PATTY PELKE (R3DO) SCOTT MORRIS (NRR) JEFFERY GRANT (IRD)

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 SCRAM DUE TO LOSS OF TURBINE BUILDING CLOSED COOLING WATER

"At 2305 EDT on September 13, 2015, a manual scram was initiated in response to a loss of all Turbine Building Closed Cooling Water (TBCCW). All control rods fully inserted. The lowest Reactor Water Level (RWL) reached was 137 inches. All isolations and actuations for RWL 3 occurred as expected. Decay heat was initially being removed through the Main Turbine Bypass System to the Main Condenser, however, as a result of the loss of TBCCW, the Main Feed Pumps lost cooling and had to be secured. At 2310, Standby Feedwater was initiated and Main Feedwater was secured.

"The loss of TBCCW also caused all Station Air Compressors (SACs) to trip on loss of cooling. The loss of SACs caused the Instrument Air header pressure to degrade to the point at which the Secondary Containment isolation dampers drifted closed. This resulted in the Reactor Building vacuum exceeding the Technical Specification limit. At 2325, operators started the Standby Gas Treatment system and manually initiated a Secondary Containment isolation signal. Secondary Containment vacuum was promptly restored to within Technical Specification limits. Additionally, Operators were monitoring for expected MSIV drift due to the degraded Instrument Air header pressure. When outboard MSIVs were observed to be drifting, Operators closed the outboard and inboard MSIVs at 2345. At 2352, Safety Relief Valves (SRVs) reached the Low-Low Setpoint and began cycling to control reactor pressure.

"RWL is currently being maintained in the normal level band with the Standby Feedwater and Control Rod Drive systems. Reactor Pressure is being controlled with Safety Relief Valves. Operators are currently in the Emergency Operating Procedure for Reactor Pressure Vessel control. Investigation into the loss of TBCCW continues.

"No safety-related equipment was out of service at the time of the event. All offsite power sources were adequate and available throughout the duration of the event.

"The NRC resident inspector has been notified."

\* \* \* UPDATE AT 0555 EDT AT 09/14/15 FROM CHRIS ROBINSON TO JEFF HERRERA \* \*

"At 0409 EDT the Reactor Core Isolation Cooling (RCIC) system was placed in service due to identification of an unisolable leak in the Standby Feedwater System. Reactor water level and pressure is now being controlled through the RCIC system and Safety Relief Valves. This event update is reportable as a valid manual initiation of a specified safety system under 10CFR50.72(b)(3)(iv)(A).

"The NRC resident inspector has been notified."

The leak rate was reported as approximately 5-10 gallons per minute from a weld on the standby feedwater pump header drain valve F326. The licensee reported the leak stopped once RCIC was placed into service. The licensee is still investigating the issue.

Notified the R3DO (Pelke), IRD Manager (Grant), NRR EO (Morris).

\* \* \* UPDATE PROVIDED BY CHRIS ROBINSON TO JEFF ROTTON AT 2135 EDT ON 09/14/2015 \* \* \*

"At 1847 EDT on September 14, 2015, a valid automatic Reactor Protection System (RPS) actuation occurred due to Reactor Water Level 3 while shutdown in MODE 3. Operators were manually controlling Reactor Pressure Vessel (RPV) level and pressure with Reactor Core Isolation Cooling (RCIC) and Safety Relief Valves (SRV). While operators were cycling SRVs, the RPV level went below the Level 3 setpoint. Operators promptly restored RPV level by manual operation of RCIC. The Level 3 actuation and associated isolations were verified to operate properly.

"The scram signal has been reset. Fermi 2 remains in MODE 3 controlling RPV Level and Pressure through manual operation of RCIC and SRVs.

"This is the second occurrence of a valid specified safety system actuation reportable under 10CFR50.72(b)(3)(iv)(A) for this ongoing event.

"The NRC Resident Inspector has been notified."

Notified R3DO (Riemer), IRD Manager (Grant), and NRR EO (Morris)

\* \* \* UPDATE FROM BRETT JEBBIA TO JOHN SHOEMAKER AT 1446 EST ON 2/27/16 \* \* \*

"This update provides clarification of the applicable reporting criteria for this Event associated with primary containment isolation actuations.

"Upon the manual reactor scram at 2305 EDT on September 13, 2015, Reactor Protection System (RPS) Level 3 actuated and Primary Containment Isolation System (PCIS) Groups 4, 13 and 15 actuated as expected. The applicable reporting criterion for these actuations is 10 CFR 50.72(b)(3)(iv)(A).

"The applicable reporting criterion for the manual closure of the inboard and outboard main steam isolation valves at 2345 EDT on September 13, 2015, is also 10 CFR 50.72(b)(3)(iv)(A). In addition, the manual closures of all MSIV lead to a loss of condenser vacuum which resulted in the actuation of PCIS Group 1 at 0001 EDT on September 14, 2015, as expected. The applicable reporting criterion for this actuation is also 10 CFR 50.72(b)(3)(iv)(A).

"Upon reaching Level 3 at 1847 EDT on September 14, 2015, PCIS Groups 4, 13 and 15 actuated as expected. The applicable reporting criterion for this actuation is 10 CFR 50.72(b)(3)(iv)(A).

"The licensee informed the NRC Resident Inspector."

Notified the R3DO (Stone).

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**News**

# Davis

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## Besse to be at full power later this week

Fuse failure led to shutdown Friday

2/2/2016

BY TOM HENRY

BLADE STAFF WRITER

OAK HARBOR, Ohio

—  
FirstEnergy Corp. expects its Davis-Besse nuclear plant to be back at full power later this week. A fuse failure in a monitoring system automatically shut down the reactor Friday afternoon, idling the plant over the weekend.

By early Monday morning, according to U.S. Nuclear Regulatory Commission online records, the reactor was at 14 percent power. Reactors typically have to be at 20 percent or more power before plants are producing enough electricity to put on regional electricity grids. Power from Davis-Besse goes onto a 13-state grid operated by Pennsylvania-based PJM Interconnection.

Jennifer Young, FirstEnergy spokesman, said it's important to note the problem that resulted in the automatic shutdown was with the monitoring system's power supply itself, not the reactor.

"When power to this system is lost, the plant automatically shuts down," she said.

Monitoring systems coordinate many of a reactor's automated features, but operators continue to have the ability to do a manual shutdown, if necessary. In this case, a blown fuse in monitoring equipment caused an automatic shutdown as designed, Ms. Young said.

The shutdown was logged at 1:22 p.m. Friday. The NRC was notified at 4:43 p.m. that day.

Once the circuitry for a failed switch was rewired, the company began the restart. The company notified the NRC on Saturday night, as a matter of procedure, that several valves were unexpectedly closed in the main steam system earlier that day. That occurred as a result of an inadvertent signal being sent to start the auxiliary feedwater system, which was already operating.

"The auxiliary feedwater system [which pushes water through the plant] was already operating as required, and we are investigating what caused the start signal to be sent to the system for a second time," Ms. Young said.

Davis-Besse is in Ottawa County, 30 miles east of Toledo and along the Lake Erie shoreline. The NRC recently approved the utility's request for a 20-year extension to its operating license, which would have expired in April, 2017. The plant is now licensed until April, 2037.

It is scheduled to be down for a month of normal refueling and maintenance this spring. Such outages occur every 18 to 24 months at nuclear plants, depending on the type of fuel they use.

Contact Tom Henry at: [thenry@theblade.com](mailto:thenry@theblade.com), 419-724-6079, or via Twitter @ecowriterohio.

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## **Dynegy, NRG among parties asking FERC to block Ohio power plant guarantees**

[Jeffrey Tomich](#), E&E reporter

Published: Monday, February 1, 2016

Competitive power producers Dynegy Inc. and NRG Energy Inc. are among parties asking federal regulators to disallow what they call "massive ratepayer-funded bailouts" that would guarantee income to American Electric Power Co. and FirstEnergy Corp. for coal and nuclear generation owned by utility affiliates.

Complaints were filed last week at the Federal Energy Regulatory Commission by Dynegy and NRG, as well as other generators and trade associations for independent power producers and electricity marketers. The Ohio Consumers' Counsel joined the

cases at FERC to stop "bailouts of FirstEnergy and AEP's aging, uncompetitive power plants," the group said.

AEP and FirstEnergy have worked for more than a year and a half to win approval for similar long-term power purchase agreements to guarantee income for certain aging power plants at risk of retirement. The companies said the agreements would deliver rate stability and keep at-risk jobs and taxes in Ohio ([EnergyWire](#), Dec. 15, 2015). Opponents including rival generators and consumer and environmental groups have called the proposals before Ohio utility regulators subsidies that would harm both consumers and distort energy markets.

In the FirstEnergy complaint, the parties said the agreement would allow the Akron-based company "to send over 3 [gigawatts] of its least economic generation to the cost-based spa for eight years before it returns, rested and refreshed, to the market. In the meantime, its competitors will face market prices artificially suppressed by the [FirstEnergy] Ohio utilities' below-cost offers of the output of that same generation." If approved by the Ohio regulator, the agreements wouldn't require separate federal approval because AEP and FirstEnergy years ago were granted waivers to do transactions with generation affiliates.

The complaints filed last week ask FERC to block the contracts by rescinding the waivers.

"It is hard to imagine a more clear threat to the viability of the PJM market or a circumstance that more clearly and urgently requires the Commission's attention," the complaints said.

Asked about the FERC cases during the company's fourth-quarter earnings conference call Thursday, AEP's chief executive, Nick Akins, said the company is confident the agreement won't run afoul with FERC.

"Really, it centers on the notion of whether there is customer choice or not. And in fact, FERC has said before the customer choice does exist in Ohio," Akins said. "I think as far as FERC is concerned, it's asked and answered."

Akins said parties filing complaints have "their own motivations about what they want to achieve. But we are wanting to achieve consistency from a pricing perspective for consumers' protection, for consumers for a sliver of their energy needs."

FirstEnergy said authority granted to its Ohio utilities by FERC about eight years ago to do transactions with generation affiliates extends to the proposed power purchase agreements (PPAs), so additional federal approval of the agreements is not needed.

"We are confident that the PPA will pass the test," said spokesman Doug Colafella. "We carefully evaluated this issue when preparing our filing with the Public Utilities Commission of Ohio -- the regulatory agency that is solely authorized to approve the proposed retail stability rider on customer bills associated with the PPA."

AEP and FirstEnergy have asked the Ohio regulator to rule on the agreements no later than Feb. 10.

The complaints can be read [here](#) and [here](#).

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Source: <http://www.eenews.net/energywire/2016/02/01/stories/1060031535>

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## Perry Nuclear Power Plant closed for repairs

By The Associated Press

POSTED:

02/12/16, 9:57 AM EST

PERRY >> Officials say two nuclear reactors in Ohio and Pennsylvania are shut down for repairs.

The Plain Dealer in Cleveland reports, that the nearly 1300 megawatt FirstEnergy reactor in Perry, Ohio, was shut down earlier this week.

The plant is located about 30 miles northeast of Cleveland.

Automated valves in high-pressure steam lines at the reactor opened, sending scalding steam to a condenser, which turns the steam into water.

Officials say a 900-megawatt plant in Hookstown, Pennsylvania, that powers the regional grid was closed last week. That reactor is located about 30 miles northwest of Pittsburgh.

Federal nuclear regulators found that the reactor's operators knew automated valves had responded to false temperature and pressure signals and that the condenser's water would continue heating up until the reactor was shut down.

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Cleveland.com

Editorial

## Why banning nuclear power is bad for public health

By Emmanuel K. Glakpe

on February 14, 2016 at 10:15 AM

Sixteen states restrict the construction of power plants that produce the country's largest source of pollution-free energy. This might please some people who don't care about air quality, but banning nuclear power is bad for public health.

Ohio, fortunately, is not one of these states. It is among a number of states with existing nuclear plants that are keeping their options open. Ohio relies on coal-fired plants for almost two-thirds of its electricity, and that spells trouble at a time when it must comply with U.S. Environmental Protection Agency regulations for clean air and carbon mitigation.

The answer needs to be a shift to low-carbon energy sources, including additional nuclear-generating capacity. Quite simply, the 2,134 megawatts of baseload power supplied by the Perry and Davis-Besse reactors –12.1 percent of Ohio's electricity-generating capacity –isn't enough.

Nuclear power is an essential element of a low-carbon energy portfolio. It is safe, reliable, and environmentally benign. According to the U.S. Energy Information Administration, the U.S. fleet of about 100 nuclear plants is responsible for a dramatic reduction in acid rain, pollution from toxic particulates and ozone smog –and accounts for 63 percent of the nation's zero-carbon electricity. Other so-called "clean" energy sources are not nearly as effective as nuclear power in improving air quality. Yet nearly one-third of the states restrict the construction of new nuclear plants, which is absurd. A study shows that nuclear power globally has saved nearly two million lives that would have been lost from the burning of fossil fuels –and that it will save many more lives in the years ahead. The study was co-authored by James Hansen, a leading atmospheric scientist, who was longtime director of NASA's Goddard Institute for

Space Studies and the first scientist to warn Congress about the danger of global warming.

Holding back the use of nuclear power makes no sense. Anti-nuclear groups pretend that solar and wind energy can replace the use of coal, which supplies more than 30 percent of the nation's electricity. But solar and wind combined provide only 6 percent of the nation's power, and they are of no value on days when the sun isn't shining and the wind isn't blowing. Nuclear power, on the other hand, supplies power around the clock, day after day.

States that restrict the construction of nuclear plants are California, Connecticut, Hawaii, Illinois, Kentucky, Maine, Massachusetts, Minnesota, Montana, New Jersey, New York, Oregon, Rhode Island, Vermont, West Virginia and Wisconsin.

For example, Wisconsin bans the construction of a nuclear plant unless it is determined that the plant will be economically feasible for ratepayers. Wisconsin obtains most of its electricity from fossil fuels. Concerned that the state's economy would suffer if the cost of natural gas, the go-to fuel were to suddenly ramp up, the Wisconsin State Assembly recently voted to lift the ban on the construction of new nuclear plants. The Wisconsin State Senate is now considering the measure, but its future is uncertain.

California, Illinois and a few other states want the nuclear waste problem resolved before any nuclear plants are built. But a blue-ribbon commission appointed by President Barack Obama has called for a consent-based approach to the selection of a suitable site for a permanent repository to hold the nation's high-level radioactive waste. This would be an alternative to the Yucca Mountain site in Nevada. Texas and New Mexico are considering proposals from private companies to host either an interim storage facility or a deep-geologic repository. Either facility would generate enormous revenue for state and local governments.

Revenue from nuclear power plants would greatly help coal-mining states with stressed economies like West Virginia, Kentucky, and Montana. Banning nuclear power in these states is nonsensical. Instead they and other states like Ohio and Pennsylvania should be investing in small modular reactors, which can be built in a factory and shipped by barge, truck or railroad to a nuclear site for a small fraction of the cost of constructing a large power plant.

Some 50 nuclear companies, including a number based in anti-nuclear states such as California and Oregon, are designing small modular reactors that would help improve air quality and reduce carbon emissions. But protecting environmental health and the planet from global warming would be much easier if there were more nuclear power plants, not fewer. State bans against nuclear power need to be overturned.

Emmanuel K. Glakpe is a professor of nuclear engineering at Howard University.

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## Canadian government delays decision to allow nuclear waste storage near Lake Huron

By AMANDA RABINOWITZ & MICHAEL BRATTON

FEBRUARY 19, 2016

For a second time, the Canadian government is delaying a decision on whether to allow storage of waste from nuclear power plants less than a mile from Lake Huron.

Canadian-based Ontario Power Generation wants to bury 7.1 million cubic feet of low- and intermediate-level nuclear waste about 2,000 feet deep.

The company says the waste would be entombed in rock and wouldn't endanger the lake. A Canadian advisory panel endorsed the project last year.

On Thursday, Environment and Climate Change Minister Catherine McKenna said the company needs to conduct further studies and answer more questions before she can make a ruling.

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ToledoBLADE.com

## World awaiting Canada decision on nuclear waste

Burial plan near Lake Huron has implications for industry

2/22/2016

BY TOM HENRY BLADE STAFF WRITER

Though delayed for at least another two months, Canada's eventual decision over the fate of a 15-year-old proposal to build a deep underground repository for low and intermediate-level nuclear waste a mile from Lake Huron is being watched on both sides of the border.

Many people believe the decision has broader implications for the U.S. and the global nuclear industry at large, as well as future management of the Great Lakes, which hold a fifth of the world's fresh surface water.

Canadian Minister of Environment and Climate Change Catherine McKenna said days after taking office in November that she planned to issue a decision March 1.

She announced Thursday that a decision is being put off indefinitely.

The announcement stated she is giving Ontario Power Generation, the utility behind the project, until April 18 to submit more information. OPG said it has already produced 12,500 pages.

Even if it's a few months from now, the decision will likely come during heightened sensitivity over the Great Lakes because of the Flint water crisis.

Flint someday hopes to draw its own water from Lake Huron. Detroit draws raw water from that lake to supply tap water to itself, Flint, and other communities.

Groups representing more than 22 million people in the United States and Canada are imploring Ms. McKenna to stop the underground nuclear-waste repository in its tracks.

Ms. McKenna has been in her position since Nov. 4, the same day Prime Minister Justin Trudeau and his other cabinet members were sworn into office.

OPG maintains the project can be done safely, with waste sent down a shaft that will be nearly a half-mile deep into hard rock that geologists believe hasn't shifted for 450 million years.

The Great Lakes region has 40 million residents, 30 million in the United States and 10 million in Canada.

Of 184 resolutions against it, many have come from municipalities and governmental organizations in the United States, including Ohio but especially the closest state to the site, Michigan.

Ontario Power Generation has been using holding chambers for intermediate-level radioactive waste for years at the Bruce nuclear complex near Kincardine, Ont.

Toledo, Oregon, and Port Clinton are opposed, joining a block of opposition throughout southwest Ontario and the eastern half of Michigan's Lower Peninsula.

That opposition includes heavy-hitters such as Chicago, Detroit, Milwaukee, Rochester, N.Y., as well as the Washington-based National Association of Counties and the Great Lakes Legislative Caucus.

A Nov. 5 letter of opposition was signed by 32 members of Congress and sent to Mr. Trudeau.

"Given the critical importance of these shared waters to our countries, and the potentially catastrophic damages to the lakes from a nuclear accident, we urge your administration not to approve this repository and consider alternative locations outside the Great Lakes Basin," according to the letter, which included signatures from U.S. Sens. Debbie Stabenow (D., Mich.), Gary Peters (D., Mich.), and Sherrod Brown (D., Ohio), as well as U.S. Reps. Marcy Kaptur (D., Toledo) and Debbie Dingell (D., Dearborn).

Risk cited Mr. Brown told The Blade he's opposed because storing radioactive waste "so close to drinking water creates an unnecessary risk."

Likewise, Mr. Peters said the project "puts this treasured resource in jeopardy."

"This is an issue of binational concern," Miss Kaptur said.

Longtime anti-nuclear activist Kevin Kamps, of Maryland-based Beyond Nuclear, said he's been fighting the project since its inception 15 years ago.

In a recent essay he got published on [counterpunch.org](http://counterpunch.org), Mr. Kamps drew parallels between the Flint water crisis and the Ontario nuclear project in terms of government accountability and oversight.

"What it boils down to is maximum convenience for Ontario Power Generation," Mr. Kamps said.

The project is planned on the massive eight-reactor Bruce nuclear complex in tiny Kincardine, Ont., about a four-hour drive north of Toledo.

OPG spokesman Neal Kelly said the cost estimate for construction remains \$1 billion.

He said he was not aware of a \$2.65 billion figure the project's opponents came up with by adding in other costs the utility submitted for an environmental impact statement.

Project engineering is half completed, Mr. Kelly said.

Twenty of Canada's 22 nuclear reactors are in Ontario. New Brunswick and Quebec also have one apiece.

OPG manages the 20 Ontario-based reactors. Its proposal is to put all radioactive waste other than spent fuel down the mine shaft.

Low and intermediate-level waste is typically protective clothing, gloves, and miscellaneous plant parts.

Spent fuel, the most radioactive form of waste in civilian hands, would be sent elsewhere for disposal.

OPG said it has been storing the low-level and intermediate-level radioactive waste above ground on its Bruce complex near Lake Huron now for more than 40 years.

OPG has long had Kincardine's support. But it has said it will not proceed without also getting support from the local Saugeen Ojibway Nations, known as SON.

"As of today, we don't have that support," Mr. Kelly said. "We continue to stand by that commitment."

Civilian project

The project would be North America's first known as a Deep Geologic Repository in civilian hands.

The only other one is a U.S. military repository in New Mexico for military waste. Two others are in civilian hands in Europe.

Rod McCullum, senior director of used fuel and decommissioning at the Washington-based Nuclear Energy Institute, said the project could be a turning point for deep repositories, which the nuclear industry hopes is the future for managing radioactive waste.

"What it means is Canada would have a solution," Mr. McCullum said. "The more common this becomes, the more people become comfortable with it."

Adding another dimension to the controversy is the uncertainty over what to do with the high-level waste.

In 2010, Canada began doing what the United States did in the 1980s: Start looking for a permanent site to entomb its growing piles of spent reactor fuel.

While Nevada's Yucca Mountain remains on hold in the United States, Canada has nine sites under consideration by its Nuclear Waste Management Organization.

Three are near the Bruce nuclear complex and also short distances from Lake Huron. Opponents fear if the deep repository plan is approved in Kincardine, it will become more politically expedient to put high-level waste nearby.

Michael Krizanc, communications director for the Nuclear Waste Management Organization, said the two are "very separate projects and very separate processes." But he said communities are enticed by the prospect of \$20 billion of investments if they host the high-level site, a financial "game-changer" for them.

Communities under consideration have come forward voluntarily and can duck out anytime, Mr. Krizanc said.

"It has the ability to affect many people," Mr. Krizanc said. His agency is on pace to select a high-level site about 2023. Another 10 years would be required for construction, meaning the fastest-case scenario for that type of repository is the mid-2030s, he said.

The deep repository, by contrast, would take about seven years to build.

The Bruce nuclear complex is one of the world's largest. The site generates 25 percent of Ontario's electricity.

It sits along the Lake Huron shoreline across from the upper tip of Michigan's thumb region and employs about 4,000 people. Their wages and other revenue from the nuclear industry support half of Kincardine's 12,000 jobs.

The utility wants to bury waste there to save on transportation costs, as well as the difficulties in getting another site approved.

Michigan had once proposed a multistate, low-level radioactive waste dump in Lenawee County's Riga Township, across the Ohio state line from Sylvania and West Toledo.

That plan was scrapped in the early 1990s because of protests.

Ohio was required to build a dump after Michigan withdrew from the regional compact, but never did.

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## **Contractor didn't vet workers at Ohio nuclear site -- IG**

[Hannah Hess](#), E&E reporter

Published: Wednesday, February 24, 2016

After a tipster contacted the Energy Department's inspector general in May 2015 with a complaint about a contractor submitting employees with criminal records for security clearances, the watchdog started investigating.

The tipster alleged that Fluor-B&W Portsmouth LLC, a contractor involved in cleanup efforts at the Portsmouth gaseous diffusion plant in southeast Ohio, cost the government thousands of dollars in unnecessary background checks by not properly vetting its hires.

Today, the IG released a [report](#) that found DOE's contract did not require Fluor to check employees' security clearance eligibility -- that falls to federal employees.

But investigators discovered Fluor's human resources employees were falling short of their contract obligations.

Through interviews and an examination of 25 percent of Fluor's personnel records for employees requiring a clearance, the IG found the company did not conduct prior employment and personal reference checks as required by its contract.

A senior HR official told investigators that the checks were not always useful, and officials were not aware they were part of their contract. The report notes that during the IG's inspection, HR directed staff to conduct the required checks.

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**Fukushima Radiation effects and updates.** This information is included as it could have a bearing on potential intermediate and long term planning for Ohio. It is the only reactor accident with significant environmental consequences from reactors similar to US light water reactors.

February 29, 2016

The latest Fukushima information on child thyroid cancers. Fukushima Minpo emphasizes that the February 15<sup>th</sup> release of current FMU results shows that one new cancer diagnosis was found since the last data release on September 30<sup>th</sup>. This brings the grand total since the program began in 2011, to 116. Hokuto Hoshi, who chairs the Fukushima Health Committee, reiterated that radiation exposure from the nuclear disaster is "unlikely to have caused any direct effect" on the local incidence of thyroid cancer. In addition, the committee announced that the rate of Fukushima's babies born with congenital defects was 2.3%; significantly less than the 3-5% rate considered typical across Japan. <http://www.fukushimaminponews.com/news.html?id=632>

Three ex-Tepco executives have been indicted for the nuke accident. Court-appointed lawyers in Tokyo accused Tsunehisa Katsumata, Sakae Muto, and Ichiro Takekuro as being professionally negligent. They allegedly ignored evidence which showed a tsunami that would engulf F. Daiichi was predictable enough to upgrade safety measures. The case was originally heard by Tokyo prosecutors in 2013, and charges were dropped because prosecutors said the tsunami could not have been foreseen. However, a panel of citizens voted to indict them last July. Trials are not expected to begin before the end of the year. The main point of contention in

the trial concerns whether or not a 2008 prediction of the massive tsunami was enough to make Tepco upgrade protective measures. <http://the-japan-news.com/news/article/0002780607> -- [http://www3.nhk.or.jp/nhkworld/en/news/20160226\\_23/](http://www3.nhk.or.jp/nhkworld/en/news/20160226_23/)

February 25, 2016

No Fukushima contamination is found in Canadian salmon and steelhead trout. Fukushima InFORM has completed highly-sensitive analyses on 156 fish caught off the west coast of Canada last summer. Cesium-137 was detected in only seven of the fish, but this was the result of post-WWII nuclear weapons testing in the South Pacific. No Cs-134, the "marker" for F. Daiichi contamination, was detected. The seven fish with Cs-137 had levels much less than one Becquerel per kilogram. The data produced in 2015 almost exactly parallels what was found in 2014 by the Victoria University-based research group. InFORM concludes, "What this means is that radioactivity from the Fukushima meltdowns has not been detected in the InFORM fish samples caught in BC waters as of summer 2015." It should be noted that the fish species tested are an important food source to First Nation Canadians and numerous animal species. Commercial, recreational, and First Nation salmon fisheries produce about \$600 million in revenues, last year. <http://fukushimainform.ca/2016/02/23/update-inform-monitoring-results-for-pacific-salmon-collected-summer-2015/>

Tepco will soon relax protective gear requirements for 90% of F. Daiichi station. The tentative start of the process will be early March. This means workers will no longer need to wear protective clothing or gloves, making their tasks much easier to perform. This does not mean that all workers in the designated areas will immediately stop using protective clothing. The new policy will be executed in stages. Currently, workers must don full anti-contamination gear and two pairs of gloves for most jobs. Decontamination work, including paving-over much of the outer surfaces, is cited as the main reason for the change. Areas inside and adjacent to the damaged units' buildings, and tanks containing highly radioactive waters, will continue to require full anti-Cs. [http://www3.nhk.or.jp/nhkworld/en/news/20160225\\_02/](http://www3.nhk.or.jp/nhkworld/en/news/20160225_02/)

February 22, 2016

UNSCEAR finds no rise in cancer from the Fukushima accident. The prestigious United Nations Scientific Committee on the Effects of Atomic Radiation briefed Fukushima Prefecture residents at an Iwaki city meeting on Feb. 9<sup>th</sup>. UNSCEAR secretary Malcolm Crick and two other expert members said that their 2013 finding of "no discernable increase" in cancer still holds true, and the "none" of the new information since then have changed their conclusion. Many attendees wanted to know about thyroid cancer issues, to which the UNSCEAR representatives said the proportion of those found to have thyroid cancer in Fukushima Prefecture is equal to that found in three other prefectures far from Fukushima; Aomori, Yamanashi, and Nagasaki. <http://www.fukushimainponews.com/news.html?id=629>

Fukushima, Hiroshima, and Nagasaki Universities to jointly study the effects of low level radiation exposure. A joint research center will be established in Hiroshima in April. Mitsuo Ochi, president of Hiroshima University, said, "The study of low-level radiation exposure is growing urgent. We would like to fulfill our mission to contribute to Fukushima's rebuilding efforts based on the results of basic research conducted by our university." Teams will investigate ten regions across Japan to assess the impact of low-level exposures on patients, methods to diagnose internal radiation exposure, treatments of patients, radiation protective agents, and possible

correlations between diseases and radiation doses. The collaboration will also offer training to health care professionals and any Fukushima workers who desire it.

<http://ajw.asahi.com/article/0311disaster/fukushima/AJ201602180036>

February 15, 2016

Radiation exposures in and around the exclusion zone have dropped at least 65% since 2011. The Nuclear Regulation Authority has posted its latest data taken from aerial surveys run in September, 2015. The readings were taken by helicopter with its detection probe at about one meter above the ground. The radiation levels have dropped even more over the past six months. The NRA says 53% of the decline in outdoor area exposures has been due to radioactive decay, and the rest from decontamination efforts. In addition, the “belt” of relatively high (>19 microsieverts per hour) estimated exposures extending northwest of F. Daiichi has shrunk to nearly nothing. In the 19  $\mu\text{Sv/hr}$  locations, a person staying outdoors 24 hours per day for a full year would receive about 100 millisieverts of exposure.

<http://www.fukushimaminponews.com/news.html?id=627>

February 11, 2016

NHK World reports on the F. Daiichi waste incinerator test. NHK says the materials to be burned include “protective suits, metal sheets, and lumber.” It is designed to work around the clock and consume 14 tons per day, reducing the disposable volume by 90%. The exhaust gasses will be filtered to remove radioactive particulates. The radioactive ash will be stored at F. Daiichi station. [http://www3.nhk.or.jp/nhkworld/english/news/20160210\\_17.html](http://www3.nhk.or.jp/nhkworld/english/news/20160210_17.html)

February 8, 2016

Some intertidal species populations have dropped south of F. Daiichi since the accident. A new report, authored by Toshihiro Horiguchi and colleagues, found that specific types of shellfish and crustacean populations south of F. Daiichi have declined since 3/11/11. The research team surmises that the cause might be significant “acute or sub-acute, rather than chronic, exposure to Cs-137 and other radionuclides”. The populations lowered closer they got to the accident site. One species of sea snail (*Thais clavigera*) was entirely absent within a 30 kilometers. While many of the studied species’ populations were affected by the Great East Japan Earthquake and Tsunami all along the northeastern coast, the data from south of F. Daiichi was unique and significant when compared to Chiba, Ibaraki, Miyagi, and Iwate coastlines. The researchers concluded it was unlikely that the quake/tsunami was solely responsible for these changes. They admit their findings stand in contrast to previous studies of benthic communities (worms, corals, bi-valves, and etc.) along the same coastline, and there might be some other reason for the cause of the population shifts they discovered. However, until other studies can prove otherwise, it seems that the acute, elevated exposures to Cs-137 and other radionuclides is currently the best possibility as a cause for the population declines.

<http://www.nature.com/articles/srep20416#abstract> The only major Japanese news outlet to cover the story was the Yomiuri Shimbun (Japan News). <http://the-japan-news.com/news/article/0002732843>

February 4, 2016

Tokyo says most rural radioactive debris could be declassified. Because of five years of radioactive decay, about 70% of the currently-stored bags of rural debris now qualify for ordinary landfills because it is no longer above the 8,000 Becquerels per kilogram criterion for Cesium. The Environment Ministry wants to reclassify it for open burial. In ten years, more than

99.9% of the current debris will qualify for landfill disposal. Draft rule changes were presented to the Press today. They were formulated at the request of various local governments and their residents. Currently, some 170,000 tons of decontamination rubbish is stored at hundreds of temporary locations across 12 prefectures. <http://the-japan-news.com/news/article/0002727876>  
-- <http://www3.nhk.or.jp/nhkworld/english/news/nuclear.html>

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## Information Notices

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## Part 21 and Miscellaneous

Information Notice 2016-01, "Recent Issues Related to the Commercial Grade Dedication of Allen Bradley 700-RTC Relays," dated February 17, 2016

ADAMS Accession No.: ML15295A173

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## FirstEnergy

Summary of November 13, 2013, Meeting with FirstEnergy Nuclear Operating Company to Discuss Delay in Submittal of Fire Risk Reduction Amendment Request

ADAMS Accession No. ML14177A578

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## Davis-Besse

DAVIS-BESSE NUCLEAR POWER STATION, NRC INTEGRATED INSPECTION REPORT 05000346/2015004

ADAMS Accession Number: ML16034A366

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Ltr 02/03/16 Davis Besse, EP Annual Inspection Report (GPH)

ADAMS Accession Number ML16034A585

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Davis-Besse Nuclear Power Station, Unit 1- Report for the Audit Regarding Implementation of Mitigating Strategies and Reliable Spent Fuel Pool Instrumentation Related to Orders EA-12-049 and EA-12-051

ADAMS Accession No.: ML16019A367

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Davis-Besse Nuclear Power Station, Unit 1 – Response Regarding Phase 2 Staffing Submittals Associated with Near-Term Task Force Recommendation 9.3 Related to the Fukushima Dai-Ichi Nuclear Power Plant Accident  
ADAMS Accession Number: ML16013A467  
\*\*\*\*\*

Davis-Besse Nuclear Power Station, Unit No. 1 - Supplemental Information Needed For Acceptance Of License Amendment Request To Adopt National Fire Protection Associated Standard 805 (CAC No. MF7190)  
ADAMS Accession No.: ML16047A145  
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Davis-Besse, Unit 1 - Application for License Amendment to Adopt NFPA Standard 805, "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants (2001 Edition)."  
ADAMS Accession No.: ML15350A314  
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## **Perry**

Ltr. 02/01/16 Request of Additional Information VIO 05000440/2015010-01  
ADAMS Accession Number ML16033A194  
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Ltr 02/03/16 Perry, EP Annual Inspection Report (GPH)  
ADAMS Accession Number ML16034A600  
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Ltr. 02/10/16 Perry Nuclear Power Plant - Information Request for an NRC Triennial Permanent Modifications and 10 CFR 50.59 (MOD/50.59) Baseline Inspection 05000440/2016007  
ADAMS Accession Number ML16042A167  
\*\*\*\*\*

PERRY NUCLEAR POWER PLANT NRC INTEGRATED INSPECTION REPORT  
05000440/2015004  
ADAMS Accession Number: ML16042A640  
\*\*\*\*\*

Perry Nuclear Power Plant - Request For Withholding Information From Public Disclosure (CAC No. MF6512) (L-16-005)  
ADAMS Accession No: ML16040A348  
\*\*\*\*\*

Perry Nuclear Power Plant, Unit No. 1 - Issuance of Amendment Concerning Adoption of TSTF-425, "Relocate Surveillance Frequencies to Licensee Control" (CAC NO. MF3720) (L-14-106).  
ADAMS Accession No.: ML15307A349  
\*\*\*\*\*

Summary of 2/9/16, Public Teleconference Call with FirstEnergy Nuclear Operating Company Regarding Upcoming Perry Nuclear Plant, Unit 1 License Amendment Request to Revise Technical Specifications for Suppression Pool Water Level & Makeup System  
ADAMS Accession No.: ML16053A343  
\*\*\*\*\*

Perry Nuclear Power Plant NRC Integrated Inspection Report 05000440/2015004.  
ADAMS Accession No.: ML16042A640  
\*\*\*\*\*

Perry - Revision of Final Integrated Plan Associated With Mitigation Strategies for Beyond-Design-Basis External Events.  
ADAMS Accession No.: ML16036A310

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## **Beaver Valley**

BEAVER VALLEY POWER STATION, UNIT 2: NRC INITIAL OPERATOR LICENSING  
EXAMINATION REPORT 05000412/2016301  
ADAMS ACCESSION NO. ML16048A477

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Beaver Valley, Units 1 and 2 - Core Operating Limits Reports Midcycle Revision.  
ADAMS Accession No.: ML16042A486

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Beaver Valley, Units 1 and 2 - Discharge Monitoring Report for December 2015.  
ADAMS Accession No.: ML16033A473

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Beaver Valley, Unit 2 - Eighteenth Refueling Outage Inservice Inspection Summary Report.  
ADAMS Accession No.: ML16025A102

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## **Portsmouth Facilities**

American Centrifuge Plant and American Centrifuge Lead Cascade Facility - Annual Summary  
Report of Facility Changes.

ADAMS Accession No.: ML16033A392

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Response on Review of Changes to the Emergency Plan for the LCF.

ADAMS Accession No.: ML16027A183

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## **Fermi 1**

No Reports

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## **Fermi 2**

FERMI-2 – NRC PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT  
05000341/2015007

ADAMS Accession Number – ML16032A591

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Ltr 02/03/16 Fermi, EP Annual Inspection Report (GPH)

ADAMS Accession Number ML16034A594

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SCHEDULE REVISION FOR THE SAFETY REVIEW OF THE FERMI 2 LICENSE RENEWAL  
APPLICATION (TAC NO. MF4222)

ADAMS Accession Number: ML16021A257

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FERMI POWER PLANT, UNIT 2, NRC INTEGRATED INSPECTION REPORT  
05000341/2015004

ADAMS Accession Number: ML16041A598

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Fermi 2 - Corrections to Amendment No. 201 Regarding Relocation of Specific Surveillance Frequencies to a Licensee-Controlled Program Based on Technical Specification Task Force (TSTF) Change TSTF-425 (CAC No. MF7296)

ADAMS Accession No.: ML16039A121

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Fermi 2 - Compliance with March 12, 2012 Commission Order Modifying Licenses With Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049).

ADAMS Accession No.: ML16022A118

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Fermi 2 - Compliance with March 12, 2012 Commission Order Modifying Licenses With Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051) and Response to Request for Additional Information.

ADAMS Accession No.: ML16022A117

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### **Fermi 3**

No reports