

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

Beans

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

Web Page Views: There were 31 page views in October.

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

Coming Attractions

12/6 IREP Tech
12/8 Perry hotwash
12/8 IREP Nuclear Power Working Group
12/14 IREP Quarterly Meeting
1/9 URSB
3/21 Davis-Besse Dry Run
5/2 Davis Besse Partial Exercise (State Assessment and County EOC)

Facility updates

Davis-Besse Nuclear Power Station

Davis-Besse operated at full power until October 14 when it reduced power to 53% for maintenance repairs to the #1 main feed pump. Power was back to 100% by Monday, October 17.

Perry Nuclear Power Plant

Perry operated at full power for the month.

Beaver Valley Power Station

Beaver Valley Unit I

Unit I started October in a refueling outage and returned to power operation October 25. The plant was at full power on October 28.

Beaver Valley Unit II

Unit II operated at full power for the month.

DTE

Fermi II

Fermi operated at full power for the month of October.

On October 26, 2016, at 2300 EDT, high wind conditions encountered on site resulted in the Technical Specification (TS) for secondary containment pressure boundary not being met numerous times. The duration of time that the secondary containment Technical Specification was not met was approximately one second for each instance. See Event 52320.

On October 28, 2016, at 1500 EDT, the Standby Liquid Control system was declared inoperable. Standby Liquid Control sodium pentaborate concentration was found to be low outside of the acceptable region following a Standby Liquid Control system tank high level alarm in the Main Control Room. Sodium pentaborate was added to the Standby Liquid Control tank by chemistry personnel and the concentration was then verified to be acceptable. See Event 52331.

Fermi III

There was no activity reported for Fermi III

Portsmouth Enrichment Plant

There was no activity reported for the Portsmouth site.

Activity

- 10/4 Ingestion Sampling Training. Initially planned as a multi-agency training exercise described in Module 16 of the State REP Plan. Also as described in the RAAC training Lesson 11: <https://emilms.fema.gov/IS0303/assets/RAAC%20Lesson%2011%20Summary.pdf> Ohio EPA and ODA teams participated in this. Bob Pricnic, NEDO, has written a summary of this training, and Bill Lohner, SWDO, worked with CO to produce a lessons learned/action item list from this training event. A new SOP for planning Training is currently in draft.
- 10/11 URSB - Old Business of a report back from the AG on URSB participation in other work groups and compliance with open meetings wa received and tabled for study by the Board. Ohio EPA reported back on the Submission of comments to USEPA on the proposed Drinking Water Protective Action Guidance. IREP provide a standing report of Plant related activitiy to the Board. Agency and plant updates rounded out the meeting.
- 10/12 IREP Tech Group – This was the first organized meeting after the RNC and was focused on an inventory of current status and planning ongoing projects.
- 10/27 NEPAC – The biggest emerging issue for NEPAC is a proposal by ODA to extend the default, “Shelter live stock and place on stored feed and water” PAR issued at Site Area Emergency, from the 10 mile Evacuation Zone to the 50 mile Ingestion Zone. There was a large reaction to this announcement and many voices of caution as to the consequences of this extension. No one voiced a concern that it was wrong, but there was concern over how to implement it in a way that would avoid confusion. This has been tabled for further discussion.
- 10/31 IREP NPWG - Update the snapshots, review Perry Exercise FEMA findings and set up a hotwash for the exercise per HSEEP procedures, Agency updates and Reviewed upcoming activities and tasks.

Statistics, NRC Reports, News, and ADAMS References

Operating Power Levels

October

Date	BV1	BV2	DB	Perry	Fermi2	
1	0	100	100	100	100	
3	0	100	100	100	100	
10	0	100	100	100	100	
15	0	100	53	100	100	DB main feed pump repairs
17	0	100	100	100	100	
24	0	100	100	100	100	

25	10	100	100	100	100	BV exiting refueling outage
31	100	100	100	100	100	

Event Reports

Part 21	Event Number: 52300
Rep Org: ITT ENIDINE INC. Licensee: ITT ENIDINE INC. Region: 1 City: WESTMINSTER State: SC County: License #: Agreement: Y Docket: NRC Notified By: RAY SMITH HQ OPS Officer: BETHANY CECERE	Notification Date: 10/18/2016 Notification Time: 10:08 [ET] Event Date: 08/19/2016 Event Time: [EDT] Last Update Date: 10/18/2016
Emergency Class: NON EMERGENCY 10 CFR Section: 21.21(d)(3)(i) - DEFECTS AND NONCOMPLIANCE	Person (Organization): CHRISTOPHER CAHILL (R1DO) FRANK EHRHARDT (R2DO) RICHARD SKOKOWSKI (R3DO) JOHN KRAMER (R4DO) PART 21/50.55 REACTO ()

Event Text

PART 21 REPORT - DEFECTIVE CURRENT TO PRESSURE TRANSDUCERS

The following was received by facsimile:

"The ITT Conoflow models GT25CA1826 and GT25CD1826 current to pressure (I/P) transducers produce a calibrated 3.0 to 15.0 psi output pressure from a 4.0 to 20.0 mA DC (input) signal. Other dedicated I/P transducer part numbers are available with different output pressure ranges and input signal values.

"On August 19, 2016 a defective model GT25CA1826 (s/n 628894) was received for evaluation. This transducer would only achieve 0-9 psi output pressure, falling short of the specified 3-15 psi output range. The failure was caused by misalignment of a key internal sub-assembly component as a result of shipping damage (mechanical shock). The product has been repaired, calibrated/tested, and is being returned to the customer (Arizona Public Service Co.).

"The following is a list of customers, and the specific I/P transducer part numbers procured from ITT since 2006. These customers will be notified by November 1, 2016.

"ACSYR SL GT25CA1826
ALABAMA POWER COMPANY GT25CA1826
AMERGEN ENERGY, LLC GT25CA1826
ARIZONA PUBLIC SERVICE CO GT25CA1826
ASIAM INT'L (TAIWAN) INC. GT25CA1826

CALVERT CLIFFS NUCLEAR POWER PLANT, INC GT25CD1826
 CATAWBA NUCLEAR STATION GT25CA1826 GT25CD1826
 CCNPP STOREROOM GT25CD1826
 CENTRAL NUCLEAR DE ALMARAZ GT25CD1826
 CONTROL COMPONENTS INC GT25CD1826
 DETROIT EDISON GT25CD1826
 DTE ENERGY GT25CD1826
 ENERGY NORTHWEST GT25CA1826
 ENERTECH CURTISS-WRIGHT GT25CA1826, GT25CD1826
ENRICO FERMI POWER PLANT 2 GT25CD1826
 ENTERGY OPERATIONS GT25CA1826, GT25CD1826
 ERGYTECHINC GT25CD1826
 EXELON BUSINESS SERVICES GT25CA1826
 FLOWSERVE GT25CA1826
 GEFAN BENELUX NV GT25CA1826 GT25CD1826
 KOREA HYDRO & NUCLEAR PWR GT25CA1826
 NEBRASKA PUBLIC POWER GT25CA1826
 NUCLEAR POWER PLANT KRSKO GT25CA1826
 OMAHA PUBLIC POWER DIST GT25CA1826 GT25CD1826
 ONTARIO POWER GENERATION GT25CA1826 GT25CD1826
 SPX MCKEAN GT25CA1826
 TVA NUCLEAR ASSURANCE AND LICENSING GT25CA1826 GT65CD1826
 WATTS BAR UNIT 2 CONSTRUCTION GT25CD1826
 WEIR VALVES & CONTROLS UK GT25CA1826
 ZVONIMIR ZEC GT25CA1826"

Power Reactor	Event Number: 52214
Facility: FERMI Region: 3 State: MI Unit: [2] [] [] RX Type: [2] GE-4 NRC Notified By: GREG MILLER HQ OPS Officer: MARK ABRAMOVITZ	Notification Date: 08/31/2016 Notification Time: 23:32 [ET] Event Date: 08/31/2016 Event Time: 19:50 [EDT] Last Update Date: 10/20/2016
Emergency Class: NON EMERGENCY 10 CFR Section: 50.72(b)(3)(ii)(B) - UNANALYZED CONDITION	Person (Organization): BILLY DICKSON (R3DO)

Unit	SCRAM Code	RX CRIT	Initial PWR	Initial RX Mode	Current PWR	Current RX Mode
2	N	Y	74	Power Operation	74	Power Operation

Event Text

UNANALYZED CONDITION WITH A POTENTIAL TORNADO

"In Event Notification (EN) 52202 on August 25, 2016, Fermi 2 identified an unanalyzed condition related to the inoperability of Mechanical Draft Cooling Tower (MDCT) fans due to nonfunctionality of the associated brakes that occurred on April 6, 2016. The MDCT fan brake is required to prevent fan over speed from a design basis tornado. The MDCT fans are

required to support the operability of the Ultimate Heat Sink (UHS) reservoir and associated Emergency Diesel Generators (EDGs). The EN noted that a past operability review was in progress to determine if declaring a MDCT fan inoperable due to a fan brake being nonfunctional resulted in additional instances of unanalyzed conditions within the: three years prior to August 25, 2016.

"On August 31, 2016 at 1950 EDT, the past operability review identified five additional instances of unanalyzed conditions within the past three years. These five instances are being reported in one EN since they are related and were all discovered and reported within 8 hours. Although these instances are related to the one previously reported in EN 52202, they are being reported in a new EN due to the time elapsed since EN 52202. The MDCT fans and fan brakes are currently operable.

"1) February 2016 - The Division 1 MDCT fan 'A' brake nitrogen bottle pressure was below the required limit from 0936 EST to 1344 EST on February 25, 2016. This nonfunctionality of the MDCT fan 'A' brake coincided with a High Pressure Coolant Injection (HPCI) system outage in Division 2.

"2) March 2015 - The Division 1 MDCT fan 'A' brake nitrogen bottle pressure was below the required limit from 1000 EDT on March 23, 2015, until 1447 EDT on April 9, 2015. There is reasonable expectation that the nonfunctionality of the MDCT fan 'A' brake coincided with various Division 2 systems, structures, or components (SSCs) out of service during a forced outage.

"3) February 2014 - The Division 2 MDCT fan 'B' brake nitrogen bottle pressure was below the required limit from 1118 EST to 1529 EST on February 20, 2014. There is reasonable expectation that the nonfunctionality of the MDCT fan 'B' brake coincided with various Division 1 SSCs out of service during a refueling outage.

"4) February 2014 - The Division 1 MDCT fan 'A' brake nitrogen bottle pressure was below the required limit from 1747 EST on February 14, 2014, until 1514 EST on February 24, 2014. There is reasonable expectation that the nonfunctionality of the MDCT fan 'A' brake coincided with various Division 2 SSCs out of service during a refueling outage.

"5) January 2014 - The Division 1 MDCT fan 'A' brake nitrogen bottle pressure was below the required limit from 0915 EST on January 24, 2014, until 1537 EST on January 31, 2014. This nonfunctionality of the MDCT fan 'A' brake coincided with approximately 30 hours where various Division 2 safety-related SSCs were inoperable.

"The occurrences discussed above resulted in unanalyzed conditions because the plant configuration when equipment in one division was inoperable while a MDCT fan brake was nonfunctional in the opposite division would not support safe shutdown capability in the event of a tornado. This condition is reportable under 10 CFR 50.72(b)(3)(ii)(B), as an event or condition that results in an unanalyzed condition that significantly degrades plant safety. There was no adverse impact to public health and safety or to plant employees.

"The NRC Resident Inspector has been notified."

* * * UPDATE FROM JEFF YEAGER TO JOHN SHOEMAKER AT 1508 EDT ON 10/20/2106
* * *

The licensee is RETRACTING item 1 only of the 5 events listed above: 1) February 2016 - The Division 1 MDCT fan 'A' brake nitrogen bottle pressure was below the required limit from 0936 EST to 1344 EST on February 25, 2016. This nonfunctionality of the MDCT fan 'A' brake coincided with a High Pressure Coolant Injection (HPCI) system outage in Division 2.

"Fermi 2 is retracting item 1 of the 8-hour event notification made on August 31, 2016, at 2332 EDT, (EN #52214). EN #52214 originally reported a non-functionality of the Division 1 MDCT fan 'A' brake on February 25, 2016, as an unanalyzed condition due to it coinciding with a Division 2 High Pressure Coolant Injection (HPCI) system outage. Subsequent engineering evaluation has determined that although the intermediate nitrogen bottle pressure was below its required limit, the pressure in the main nitrogen bottle was sufficient to ensure that the MDCT fan 'A' brake could have performed its intended function in the event of a tornado. Since the MDCT fan 'A' brake was determined to be functional, the MDCT fan 'A', the associated Division 1 UHS reservoir, and the Division 1 EDGs were all operable at that time. Therefore, no unanalyzed condition existed on February 25, 2016. The other four items [2-5] included in EN #52214 are not being retracted and are still considered unanalyzed conditions.

"The licensee notified the NRC Resident Inspector."

Notified R3DO (Orth).

Power Reactor	Event Number: 52320
Facility: FERMI Region: 3 State: MI Unit: [2] [] [] RX Type: [2] GE-4 NRC Notified By: JEFF YEAGER HQ OPS Officer: JEFF HERRERA	Notification Date: 10/27/2016 Notification Time: 00:49 [ET] Event Date: 10/26/2016 Event Time: 23:00 [EDT] Last Update Date: 10/27/2016
Emergency Class: NON EMERGENCY 10 CFR Section: 50.72(b)(3)(v)(C) - POT UNCNTRL RAD REL	Person (Organization): PATTY PELKE (R3DO)

Unit	SCRAM Code	RX CRIT	Initial PWR	Initial RX Mode	Current PWR	Current RX Mode
2	N	Y	98	Power Operation	98	Power Operation

Event Text

SECONDARY CONTAINMENT TECHNICAL SPECIFICATION NOT MET

"On October 26, 2016, at 2300 EDT, high wind conditions encountered on site resulted in the Technical Specification (TS) for secondary containment pressure boundary not being met numerous times. The duration of time that the secondary containment Technical Specification was not met was approximately one second for each instance.

"All plant equipment responded as required to the changing environmental conditions and Reactor Building HVAC returned secondary containment pressure within TS limits. At 2300 EDT, secondary containment vacuum was greater than the TS operability limit of 0.125 inches

of vacuum water gauge (TS SR 3.6.4.1.1) and steady, and the LCO was exited. There were no radiological releases associated with this event. A review indicates that this condition occurred earlier this shift during the high wind condition.

"Declaring secondary containment inoperable is reportable under 10CFR50.72(b)(3)(v)(C) as an event or condition that could have prevented the fulfillment of a safety function needed to control the release of radioactive material.

"The licensee has notified the NRC Resident Inspector ."

Power Reactor	Event Number: 52331
Facility: FERMI Region: 3 State: MI Unit: [2] [] [] RX Type: [2] GE-4 NRC Notified By: CHRIS MCEACHRAN HQ OPS Officer: BETHANY CECERE	Notification Date: 10/28/2016 Notification Time: 21:58 [ET] Event Date: 10/28/2016 Event Time: 15:00 [EDT] Last Update Date: 10/28/2016
Emergency Class: NON EMERGENCY 10 CFR Section: 50.72(b)(3)(v)(A) - POT UNABLE TO SAFE SD 50.72(b)(3)(v)(C) - POT UNCNTRL RAD REL 50.72(b)(3)(v)(D) - ACCIDENT MITIGATION	Person (Organization): PATTY PELKE (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

STANDBY LIQUID CONTROL TECHNICAL SPECIFICATION NOT MET

"On October 28, 2016, at 1500 EDT, the Standby Liquid Control system was declared inoperable. Technical Specification (TS) Limiting Condition for Operation (LCO) 3.1.7 Condition B was entered due to sodium pentaborate concentration not within limits.

"Standby Liquid Control sodium pentaborate concentration was found to be low outside of the acceptable region following a Standby Liquid Control system tank high level alarm in the Main Control Room. Sodium pentaborate was added to the Standby Liquid Control tank by chemistry personnel and the concentration was then verified to be acceptable. Standby Liquid Control was declared Operable on 10/28/16 at 1935 EDT. The cause of the out-of-acceptable concentration was due to make-up water leaking by a closed valve. [The licensee cycled this valve and closed an upstream valve.]

"Declaring the Standby Liquid Control system inoperable is reportable under 10 CFR 50.72(b)(3)(v)(A), (C), and (D) as an event or condition that could have prevented the fulfillment of a safety function of a system needed to shut down the reactor and maintain it in a safe shutdown condition, control the release of radioactive material, and mitigate the consequences of an accident."

The licensee has notified the NRC Resident Inspector.

News

Nuclear Power Becomes Completely Renewable With Extraction Of Uranium From Seawater

Posted on [October 3, 2016](#) by [ansnuclearcafe](#) — [2 Comments ↓](#)
by James Conca

America, Japan and China are racing to be the first nation to make [nuclear energy completely renewable](#). The hurdle is making economic the extraction of uranium from seawater, because the amount of uranium in seawater is truly renewable as well as inexhaustible.

New technological breakthroughs from [DOE's Pacific Northwest \(PNNL\) and Oak Ridge \(ORNL\) national laboratories](#) have made removing uranium from seawater economically possible. The only question is – when will the source of uranium for our nuclear power plants change from mined ore to seawater extraction?

Nuclear fuel made with uranium extracted from seawater makes nuclear power completely renewable. It's not just that the 4 billion tons of uranium in seawater now would fuel a thousand 1,000-MW nuclear power plants for a 100,000 years. It's that uranium extracted from seawater is replenished continuously, so nuclear becomes as endless as solar, hydro and wind.

Specifically, this [latest technology](#) builds on [work by researchers](#) in Japan and uses polyethylene fibers coated with amidoxime to pull in and bind uranium dioxide from seawater (see figure above). In seawater, amidoxime attracts and binds uranium dioxide to the surface of the fiber braids, which can be on the order of 15 centimeters in diameter and run multiple meters in length depending on where they are deployed. After a month or so in seawater, the lengths are remotely released to the surface and collected. An acid treatment recovers the uranium in the form of a uranyl complex, regenerating the fibers that can be reused many times. The concentrated uranyl complex then can be enriched to become nuclear fuel.

Testing at facilities like PNNL's Marine Sciences Laboratory in Sequim, Washington shows that these new fibers have the capacity to hold 6 grams of uranium per kilogram of fiber in only 50 days in seawater. These advances have reduced the cost of this method by a factor of four in just five years. But it's still over \$200/lb of U3O8, twice as much as it needs to be to fully replace mining uranium ore.

Fortunately, the cost of uranium is a small percentage of the cost of nuclear fuel, which is itself a small percentage of the cost of nuclear power. Over the last twenty years, [uranium spot prices have varied](#) between \$10 and \$120/lb of U3O8, mainly from changes in the availability of weapons-grade uranium for blending down to make commercial fuel.

However, the big deal about extracting uranium from seawater is that it makes nuclear power completely renewable. As renewable as wind.

Uranium is dissolved in seawater at very low concentrations, only about 3 parts per billion (3 micrograms/liter or 0.00000045 ounces per gallon). But there is a lot of ocean water – 300 million cubic miles or about 350 million trillion gallons (350 quintillion gallons, 1,324 quintillion liters). So there's about 4 billion tons of uranium in the ocean at any one time.

However, seawater concentrations of uranium are controlled by steady-state, or pseudo-equilibrium, chemical reactions between waters and rocks on the Earth, both in the ocean and on land. And those rocks contain 100 trillion tons of uranium.

So, whenever uranium is extracted from seawater, more is leached from rocks to replace it, to the same concentration. It is impossible for humans to extract enough uranium to lower the overall seawater concentrations of uranium over the next billion years, even if nuclear provided 100% of our energy and our species lasted a billion years.

In other words, uranium in seawater is completely renewable. As renewable as solar energy. Yes, uranium in the crust is, strictly speaking, finite. But [so is the Sun](#), which will eventually burn out. But that won't begin to happen for another 5 billion years. Even the wind on Earth will stop at about that time as our atmosphere boils off during the Sun's [initial death throes as a Red Giant](#).

According to Professor [Jason Donev from the University of Calgary](#), "Renewable literally means 'to make new again'. Any resource that naturally replenishes with time, like the creation of [wind](#) or the [growth of biological organisms](#) for biomass or biofuels, is certainly renewable. Renewable energy means that the energy humans extract from nature will generally replace itself. And now uranium as nuclear fuel meets this definition."

So, for all practical purposes, solar, wind, hydro and nuclear are all renewable. It's about time society recognized this and added nuclear to the renewable portfolio.

Source: <http://ansnuclearcafe.org/2016/10/03/nuclear-power-becomes-completely-renewable-with-extraction-of-uranium-from-seawater/?sthash.TP9FvsNh.mjio>

Fukushima decommission cost threatens utility's survival

Published: Friday, October 7, 2016

Tokyo Electric Power Co. Inc. admitted this week that paying for the decommissioning of the Fukushima Daiichi nuclear plant could leave it insolvent.

The 2011 nuclear accident will cost over \$106 billion, according to a study by academics. Tepco has said decommissioning alone will cost around \$19 billion.

Japan's cost to insure debt reached a seven-month high this month. Investors should wait to buy bonds from other utilities until there is more clarity from the government, according to BNP Paribas SA.

"Now is not the best time to be investing in electricity utility bonds, with discussions going on about nuclear plant decommissioning, and the potential for spreads to widen," said Mana Nakazora, chief credit analyst at BNP Paribas in Tokyo. But, she added, "the government has little choice but to take measures to avoid a default by Tokyo Electric" (Flynn/Oh/Urabe, [Bloomberg](#), Oct. 6). — **CS**

Source: <http://www.eenews.net/greenwire/2016/10/07/stories/1060044000>

toledoBlade.com

Anti-nuclear activists mark Fermi 1 incident

It was a half-century ago that plant had a partial meltdown

By Tom Henry | BLADE STAFF WRITER

Published on Oct. 6, 2016 | Updated 10:53 a.m.

MONROE — Anti-nuclear activists marked the 50th anniversary of Fermi 1's partial meltdown Wednesday with a peaceful rally at downtown Monroe's Loranger Square Pavilion, during which they called for America to embrace more renewable energy and support efforts to safeguard the public from radiation exposure. Area residents stopped by to pick up literature, listen to music, and chat.

Three or four classes of journalism and English students from nearby Monroe Middle School, each with about 25 students, came by and used the event for a writing exercise, said rally organizer Michael Keegan of Don't Waste Michigan.

Mr. Keegan said the commemoration was meant to inspire proactive discussions about future energy production, not just dwell on the near-catastrophic event that was reported to the Monroe County Sheriff's Office at precisely 3:09 p.m. Oct. 5, 1966.

Fermi 1, which is on the same site as DTE Energy's operating Fermi 2 nuclear plant, was an experimental breeder reactor built during nuclear power's fledgling era.

It operated from 1963 to 1966, when a blocked coolant line caused a partial fuel meltdown.

The event was America's third nuclear accident, many of which the public knew little about until the much higher-profile half-core meltdown of Three Mile Island Unit 2 near Harrisburg, Pa., said David Lochbaum, nuclear safety engineer for the Cambridge, Mass.-based Union of Concerned Scientists.

"The striking thing to me is —50 years later —there are still lessons unlearned," Terry Lodge, Toledo Coalition for Safe Energy spokesman, said.

Mr. Keegan, Mr. Lochbaum, and Mr. Lodge were among seven speakers who addressed about two dozen people Wednesday at a news conference which began at the exact moment the meltdown was reported to authorities 50 years earlier.

Although eclipsed by Three Mile Island and more significant events in other parts of the world, such as the Fukushima Daiichi meltdown of 2011 in Japan and the Chernobyl disaster of 1986 near Kiev, Russia, the Fermi 1 incident inspired the 1975 John G. Fuller book *We Almost Lost Detroit*, as well as a protest song by the late singer Gil Scott-Heron.

The plant, run by a consortium of more than 20 firms, was restarted in 1970 and shut down for good in 1972. It operated a quarter-mile from its successor, Fermi 2, which has been online and producing electricity since 1985.

In a statement issued through utility spokesman Guy Cerullo, DTE said Fermi 1 was "a demonstration project

conceived and built by a consortium of companies in the late 1950s and early 1960s —the early days of nuclear energy development.

"The project contributed greatly to the understanding and further development of commercial nuclear energy going forward. Contrary to sensationalist accounts, we did NOT almost lose Detroit; about 1 percent of the fuel was damaged and the plant operated again afterward," the statement read.

All of Fermi 1's fuel was removed from the plant in 1975 and shipped to Idaho.

According to the NRC, no abnormal releases to the environment occurred. Plans call for dismantling the rest of that plant in about two decades.

Contact Tom Henry at: thentry@theblade.com, 419-724-6079, Or via Twitter @ecowriterohio.

Moniz: Next president will decide nuclear's future

[Umair Irfan](#), E&E reporter

Published: Tuesday, October 25, 2016

Energy Secretary Ernest Moniz said the next administration will play a major role in deciding the fate of the U.S. nuclear industry.

"We do have a set of deliberate choices we are going to have to make, and we are going to have to make them, in my view, over a roughly five-year period," Moniz told a nuclear energy conference yesterday at the Center for Strategic and International Studies.

The next president will have to make critical decisions about the role of nuclear energy in meeting climate change targets as several existing nuclear power plants face early retirement, while four new nuclear power plants will be coming online.

Whether to keep old plants running, to build new reactors or to invest in the next generation of nuclear technology remains up in the air.

"What the system will look like is extremely unclear," Moniz said. "We say [nuclear] is essential. That is by no means a universally held view."

Climate change remains an important argument for nuclear power, he said ([E&ENews PM](#), Oct. 24). However, rising costs and the looming problem of nuclear waste continue to haunt the industry.

Lawmakers said they anticipate revisiting the stalled nuclear waste storage project at Yucca Mountain in the next Congress ([E&E Daily](#), Sept. 28).

State and local officials, particularly utility regulators, will also have a large role in the future of nuclear energy. "We don't see nuclear plants closing in the Upper Midwest and new plants in Southeast because of genetic differences," Moniz said. "It's called the regulatory structure."

As for the next generation of advanced reactors, those designs would require a strong and steady push, to the tune of \$500 million in research funds each year, though they will likely not feed power into the grid until after 2030.

Designs like small modular reactors, which offer much lower upfront costs, could help utilities overcome the sticker shock that plagues new nuclear reactors. "We expect the first of these to go through and see licensing in this decade and be deployed in the following five years," Moniz said.

Moniz added that public officials should not be lulled into a false sense of security because of record-low natural gas prices, because there is no guarantee prices will stay low indefinitely. "I think building a system around a dominant role for natural gas is not an exercise in proper risk management," he said.

These challenges would likely fall to his successor, as Moniz hinted that he would not stick around at the Department of Energy past the end of the year. "I'll have more time in 88 days," he said.

Twitter: [@umairfan](#) Email: uifan@eenews.net

Source: <http://www.eenews.net/climatewire/2016/10/25/stories/1060044747>

EPA is sued for documents on radioactivity guidelines

[Tiffany Stecker](#), E&E reporter

Published: Monday, October 24, 2016

The nonprofit Public Employees for Environmental Responsibility sued U.S. EPA today, accusing the agency of withholding records on its contentious guidelines for radioactivity in drinking water.

The [lawsuit](#), filed in the U.S. District Court for the District of Columbia, says EPA failed to respond "within the statutory deadline" to a Freedom of Information Act request for the draft [protective action guide](#) for drinking water after a radiation accident.

EPA says the guide, which is expected to be finalized before the next president's inauguration, would help state and local agencies formulate plans to prevent the acute and chronic effects of radiation from water.

PEER and other critics of the rule say EPA is suggesting radiation levels that exceed Safe Drinking Water Act thresholds.

"We hope the lawsuit draws attention to the fact that this isn't ready for finalization," said Jeff Ruch, PEER's executive director.

For example, while the law's maximum level for iodine-131 is 3 picocuries per liter, the proposed guideline's limit is 10,350 picocuries per liter.

The statute's limit for strontium-90 is 8 picocuries per liter, while the proposed guide's is 7,400 picocuries per liter.

The complaint says EPA has failed to produce records in response to PEER's Sept. 6 document request.

The guide was initially proposed at the end of the George W. Bush administration but wasn't finalized. The end-of-the-year push under President Obama is similar to EPA's attempts eight years ago.

"For us, it's sort of like déjà vu all over again," Ruch said.

In comments to EPA, many state regulators praised the guide for providing the clarity they need to prepare for emergencies.

"Such effort has been a long time coming," wrote Joseph Crisologo, senior engineer for the California State Water Resources Control Board's Division of Drinking Water.

EPA declined to comment on the lawsuit, saying it does not comment on pending litigation.

The White House Office of Management and Budget completed its review last week of a manual with radiation dose guidelines to prevent or minimize radiation exposure after incidents. It does not include guidance on drinking water.

Twitter: [@TiffanyStecker](#) Email: tstecker@eenews.net

Source: <http://www.eenews.net/greenwire/2016/10/24/stories/1060044710>

DOE moving forward on interim storage solution

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

Published: Friday, October 28, 2016

The Energy Department is seeking feedback on the pros and cons of building a private facility to temporarily house the nation's nuclear waste.

DOE issued a [request](#) for input yesterday on what role the government could play in private facilities, how they might benefit neighboring communities or tribes, and how to manage the liability of storing radioactive waste on site.

The agency is hoping companies that currently operate existing consolidated waste sites will respond.

The request is part of the Obama administration's larger pursuit of an integrated waste management system that would transport, store and dispose of spent reactive fuel and high-level radioactive waste.

Senate Energy and Water Development Appropriations Subcommittee Chairman Lamar Alexander (R-Tenn.) said in a statement the interim storage initiative was recommended four years ago by a high-profile panel President Obama assembled to look at waste solutions.

Alexander said he hoped Congress would take the next steps and pass bipartisan legislation he introduced with Energy and Natural Resources Chairwoman Lisa Murkowski (R-Alaska) and ranking member Maria Cantwell (D-Wash.), plus Senate Energy and Water Development Appropriations Subcommittee ranking member Dianne Feinstein (D-Calif.) to reboot the nation's waste program.

Alexander also noted that he and Feinstein included funding in the Energy and Water spending bill to support a pilot project.

"We need to move on all tracks at the same time to solve the nuclear waste stalemate to help ensure that carbon-free nuclear power has a strong future in this country," the senator said. "Yucca Mountain can and should be part of the solution, but we have more than enough waste to fill Yucca Mountain to its legal capacity."

Twitter: [@HMNorthey](#) Email: hnorthey@eenews.net

Source: <http://www.eenews.net/eenewspm/2016/10/28/stories/1060045001>

Fukushima news. This is included as a case study for the types of issues that may develop in the case of an incident at a US reactor. The Fukushima Daiichi Reactors are identical to some US reactors and are the closest incident that has occurred to compare to US concerns.

Source: <http://www.hiroshimasymdrome.com/fukushima-accident-updates.html>

October 27, 2016

- The Industry Ministry (MEXT) calls for a drastic reorganization of Tepco. Specifically, the Tokyo Electric Power Company Holdings Inc., which is the title of the wholly-owned subsidiary of Tepco tasked with decommissioning Fukushima Daiichi. Tepco spends about \$800 million per year on decommissioning, but a senior MEXT official said that could swell to several billion dollars per year. At that rate, the total cost of decommissioning could be more than \$100 billion by 2050. In its present condition, Tepco could never handle the financial burden alone. MEXT convened an "expert panel" to study how to handle the spiraling costs of the decommissioning. Four proposals were considered: (1) Tokyo covering all decommissioning costs, (2) Tepco placed under state control and

public funds used to cover costs, (3) Tepco liquidated and creditors asked to forgive the company's incurred debt, or (4) further Tepco reform to handle the increasing costs by maximizing profits. The fourth proposal includes Tepco possibly spinning-off its nuclear energy business and making financial ties with other utilities that have nukes. Politically, the safest is proposal number four, and MEXT chose that one. <http://the-japan-news.com/news/article/0003306326> -- <http://the-japan-news.com/news/article/0003306326>

October 24, 2016

- The mass of Fukushima corium is estimated at 880 tons. Corium is the solidified remains of the Uranium cores and structural materials from inside the three Fukushima reactor pressure vessels (RPVs). Once Fukushima station was re-electrified, sufficient cooling water was injected into the three systems to quench the melted material and solidify it. Before the nuke accident, the three fuel cores had a combined weight of 257 tons. Computer data-crunching estimates that the combined mass of corium is roughly 880 tons. The program was developed by the International Research Institute for Nuclear Decommissioning (IRID). For units #1 and #3, their respective corium amounts are estimated at 30% fuel and stainless steel, and 40% concrete. For unit #2, the fuel and stainless component is assumed to be 70% of the corium. Muon scanning imagery was included in the IRID computer analysis. <http://www.fukushimainponews.com/news.html?id=739>
- Natural radioactive decay greatly radiation levels in rural contaminated wastes. As a result, 77% of the materials stored in Miyagi Prefecture have radioactivity levels below the 8,000 Becquerels per kilogram standard. The prefecture wants to discuss disposal with the Environment Ministry because the levels of radioactivity below the limit. Tokyo is legally responsible for final disposal of the materials. The wastes were never designated as high-level radioactive material because the local communities did not want to generate the impression that the areas were dangerous. http://www3.nhk.or.jp/nhkworld/en/news/20161024_11/
- Futaba offers to build a common cemetery for up to 400 graves. It has been requested by townspeople possessing graves in tsunami-devastated locations and places where the interim rural radioactive waste storage site is to be constructed. The town presumes each grave plot will be 6 square meters. It will also build parking lots, restrooms and an "azumaya" rest house. Land purchases and development will begin in April, with plots to be sold later in 2017. <http://www.fukushimainponews.com/news.html?id=741>
- The Fukushima "ice wall" is once again alleged to be failing. This time it's The Nikkei; Japan's leading financial news outlet. As with similar reports from other outlets, the Nikkei fails to identify the true root of the problem; the Nuclear Regulation Authority's mandate to leave several large sections unfrozen to assuage speculations of a highly radioactive release to the sea. The openings are on the "landside" of the four damaged units, directly in line with the flow of groundwater from the inland mountains. A cursory inspection of Tepco's weekly posting of the ice wall's status shows that the entire wall allowed to be solidified by the NRA is now frozen. If the seven sections required to be left unfrozen by NRA were allowed to be solidified, there is every reason to believe the ice wall would be a huge success. The Nikkei also makes the mistake of stating that as

water flows through the damaged units, it comes in contact with “molten nuclear fuel” and becomes contaminated. Of course, none of the material has been molten for more than five and one-half years! <http://asia.nikkei.com/Tech-Science/Tech/Ice-wall-not-working-at-Fukushima-nuclear-plant> -- http://www.tepco.co.jp/en/nu/fukushima-np/handouts/2016/images/handouts_161020_01-e.pdf

- Japan’s winter electrical reserve capacity places some prefectures at risk. The Agency for Natural Resources & Energy (ANRE) says there should be a roughly 3% reserve this winter, but says that conservation measures need to be continued, especially with Hokkaido Prefecture; the most northern of the major islands. The reserve level is at 3% because of the operation of two nukes at Sendai station and one at Ikata. The ANRE report warns that the future risk of electrical instability will increase without more nuke restarts. In the wake of the Great East Japan Earthquake and Tsunami of 2011, numerous fossil-fueled power plants that had been shut down for many years were brought back into service to supply the needed electricity. 7,940 MWe of this “thermal” capacity will be out of service this winter for much-needed maintenance and repairs due to aging and deterioration of equipment. This is 60% more than the 4,630MWe down for maintenance last summer. Another super-cold winter could stretch Japan’s reserve capacity to its limits. <http://www.jaif.or.jp/en/japans-energy-outlook-for-winter-capacity-reserve-margin-to-stay-above-3/>

October 20, 2016

- Fukushima’s governor touts his prefecture in Washington, D.C. On Tuesday, Governor Masao Uchibori announced he will publicize specialties and attractions of Fukushima, such as sake and hot springs, in the United States. He wants as many Americans as possible to visit the prefecture and look at the current situation first-hand. Uchibori believes that person-to-person dissemination of information will boost the prefecture’s rehabilitation. He pointed out *that contrary to popular notion, the prefecture is not a disaster zone.* <http://jen.jiji.com/jc/eng?q=eco&k=2016101900394>
- On Wednesday, Gov. Uchibori shared Fukushima’s “regeneration” story to the United Nations. He said, “The clocks in Fukushima have not stopped, the clocks are moving forward to accomplish Fukushima’s revitalization. When I am travelling overseas there are still a lot of people who think that nobody is living in Fukushima” which is “not true.” He stressed that evacuees are only about 5% of Fukushima’s population, and the remaining 95% are living normal lives. Uchibori explained what has actually happened over the past five years, “The Great East Earthquake and tsunami really helped to change our thinking, particularly in our understanding of how natural and technological hazards interplay, in the way we listen to and engage with our local communities and our local people in reconstruction efforts.” For example, new industry that has emerged in Fukushima since 2011 includes solar and wind power production, and especially robotics. The governor projected that Fukushima could well-become the world’s leader in an industrial robot revolution. <https://www.japantoday.com/category/national/view/fukushima-governor->

[showcases-post-2011-recovery-efforts-at-un?utm_campaign=jt_newsletter&utm_medium=email&utm_source=jt_newsletter](http://www3.nhk.or.jp/nhkworld/en/news/20161020_27/)
[2016-10-20 PM](http://www3.nhk.or.jp/nhkworld/en/news/20161020_27/)

Examine ways that regional association may impact business unrelated to an accident.

- Fukushima Saki is promoted in New York City. Nine Fukushima Saki brewers held a “tasting” in a city hotel on Wednesday, allowing local restaurants and shops offering rice wine a chance to enjoy their product. During the event, Governor Uchibori arrived and told attendees that Fukushima’s residents are smiling again. However, he noted that *Fukushima Saki sales have been severely damaged by unfounded rumors about food safety* that proliferate around the world. http://www3.nhk.or.jp/nhkworld/en/news/20161020_27/
- JAIF President Takahashi says Japan’s radiation education needs upgrading. After WWII, it was taught in junior high schools, but was discontinued in 1980. The Ministry of Education (MEXT) resurrected the subject in 2008 and was brought to the classroom in 2012. MEXT’s published a “side reader” for students in elementary, junior high and high schools. Other groups involved since 2012 have been All Japan Junior-High School Science Education Research Group, the Fukushima Prefectural Board of Education, and the Atomic Energy Society of Japan’s Education Committee. However, young teachers were never taught the facts about radiation when they were going through school, so their knowledge is limited. They often do not cover the subject because it is not easy for schools to obtain radiation monitors and experimental materials for classroom demonstrations. Takahashi called for seminars held by the Japan Atomic Industrial Forum to provide teacher education and classroom support. <http://www.jaif.or.jp/en/message-from-jaif-president-takahashi-current-state-of-radiation-education-in-japan/>
- **October 17, 2016**
- Restart of Kashiwazaki-Kariwa units #6 & #7 could also be delayed by new tsunami data. On October 13th, Tepco informed the NRA that the company needs to review its earthquake soil liquefaction analyses for the station’s tidal levees. The worst-case tsunami is projected at 7.6 meters, and the levees stand at 15 meters. However, severe soil liquefaction could possibly collapse the levees. Units #1 through #4 are built at 5 meters above sea level, and the other three units at a 12 meter elevation. If the levees collapse during a worst-case quake, the tsunami could engulf all of the lower four units. There are currently no plans to restart any of the four, but unit #3 is designated as the staff’s “emergency response location”. Tepco now wants the NRA to approve shifting the emergency hub to unit #5. But, unit #5 worst-case estimates of staff radiation exposures are for 70 millisieverts per week during a Fukushima-like crisis with units #6 & #7, which the NRA might not be happy with. <http://mainichi.jp/english/articles/20161014/p2a/00m/0na/012000c>
- 20% of Fukushima municipalities have formalized disaster relief support for welfare centers. *There are now municipal 51 welfare facilities for elderly and handicapped citizens, up from eleven before the Great East Japan Earthquake and Tsunami of 2011. The push to increase the number of such centers*

stemmed from reports of deaths of elderly evacuees after the quake, tsunami, and nuke accident. Only a dozen the municipalities have formal emergency human support schemes in place and have made firm plans for acquisition of relief supplies should another extreme natural disaster take place. The low percentage is attributed to residential outflow and rural depopulation caused by both the mandated and voluntary nuke evacuations. Not knowing what the eventual municipal populations will be is the main roadblock. Population projections determine support necessities, like the number designated social workers, welfare specialists, and care-support providers to be dispatched in times of disasters. The PM's Cabinet guideline calls for welfare shelters to designate one social worker for every 10 elderly evacuees, but many communities simply don't have the numbers needed to comply.
<http://www.fukushimainponews.com/news.html?id=737>

October 13, 2016

- Removal of the upper-floor enclosure for unit #1 is complete. On October 7th, Tepco took off the last of the eight upper enclosure panels surrounding unit #1. Local residents and politicians were concerned that the work might stir up radioactive dust and be carried away from the F. Daiichi property by winds. No discernable changes in airborne radioactivity occurred at the station boundary with removal of any of the huge panels. The project began on September 15th and has progressed without a hitch. Removal of the eight bottom panels has already begun. https://www4.tepco.co.jp/en/nu/fukushima-np/handouts/2016/images/handouts_161007_01-e.pdf
- The Press urges Tepco to accelerate water-purifying at F. Daiichi. Japan's #1 newspaper (Yomiuri Shimbun) reports that purification systems are being doubled in order to decontaminate water at a higher rate, and larger storage tanks are being installed to replace the current 1,000 ton units. The Yomiuri wants the work done as quickly as possible. The Press outlet also wants Tepco (and Tokyo) to seriously consider ocean release. However, the Yomiuri falls into the same technological fallacy as the rest of the Japanese Press. It says that the radioactive water in the turbine building basements of units #1 through #4 is a "serious impediment to the work to decommission the plant." However, the major impediment is radiation levels inside the reactor buildings caused by re-solidified corium (formerly melted reactor internals); not the radiation emitted by the water in the turbine basements. Regardless, the paper is right about a release of purified water to the sea. It will cause no actual harm to anyone or anything, but Tepco and Tokyo are loathe to do this unless they gain local approval. Aside – Gaining local approval seems to be a pipe-dream because of public radiophobia. – End aside. The Yomiuri finally points out that the rate of build-up will not be greatly reduced until the "ice wall" is fully frozen. But, the newspaper fails to mention it will not happen as long as the Nuclear Regulation Authority stubbornly refuses to let Tepco freeze the seven gaps the agency ordered to be left open in the wall. <http://the-japan-news.com/news/article/0003279580>

October 10, 2016

- A storage tank's radioactive water leak is fully contained at F. Daiichi. The leak was from one of the bolted-together tanks that are still being used. 32 liters (~8.5

gallons) seeped from a bolted seam, but was entirely contained by the coffer dam surrounding the cluster the tank is in. The tank holds mostly fully-treated water, but it contained some highly-contaminated residual water from its original content before the refilling. Thus, the water in the coffer dam tested out at 5.9×10^5 Becquerels per liter of Beta-emitting isotopes. Some of the bolted-seam tanks had leakage in the past, and Tepco has replaced as many as possible with all-welded seam tanks. But, making welded-seam tanks cannot keep up with the accumulation of contaminated water, so bolted-seam tanks are still needed.

<http://www.asahi.com/ajw/articles/AJ201610070036.html>

October 6, 2016

- Fukushima radioactivity is not amplifying super storms on our oceans. The Daily Kos reports that the internet speculations of Fukushima intensifying typhoons and hurricanes are “nonsense”. The miniscule heat generated by the radioactive decay of Fukushima isotopes is 50 trillion times less than the heat deposited by our sun. Thus the article’s bottom line, “Suggesting that Fukushima energy is fueling cyclone activity is, scientifically speaking, silly. Friends don’t let friends do it.” <http://www.dailykos.com/stories/2016/10/5/1578291/-Fukushima-FAQ-Are-Fukushima-Radionuclides-Causing-Super-Storms-in-the-Pacific-and-Atlantic>
- A clinic opens in wholly-evacuated Tomioka Town. Residents are currently allowed to make “temporary preparatory stays” in their homes before Tokyo’s evacuation order is lifted next spring. One of the needs for repopulation is a fully-operational medical facility. The Tomioka Clinic is headed by Satoshi Imamura, who treated patients injured by the Great East Japan earthquake of 2011, including emergency cases. However, he and his staff had to leave due to Tokyo’s mandated evacuation. He says his return to the community is great, “I felt nostalgic to have been able to see patients I used to treat. I expect to make the clinic a medical institution which local residents can rely on.” The clinic will be open three days per week during the “temporary stay” period, and five days per week after the evacuation order is lifted. <http://www.fukushimaminponews.com/news.html?id=735>
- Japan’s largest newspaper asks “Is medical radiation exposure being curbed?” The question would have been moot before the nuke accident of 2011. However, a mortal fear of radiation exposure has swept the land since then, affecting millions of Japanese. The medical community was eventually subjected to this angst, and Diagnostic Reference Levels (DRL) were established by Tokyo in June of 2015. DRLs are guidelines to prevent hypothetically unnecessary diagnostic medical exposures. Have DRLs reduced these exposures? The Yomiuri asked Reiko Kanda of the National Institutes for Quantum and Radiological Science and Technology. She says medical exposures were historically high and that doctors made it easy to receive an exam, but, “The nuclear accident in Fukushima Prefecture changed that completely, and many people in Japan became concerned about radiation exposure.” Kanda points out that following the “Japanese version” of DRLs is not mandatory, and getting medical practitioners to follow them has been slow. Hospitals where courses have been held on DRLs have begun to use DRL guidance, but most still use exposures and equipment that are pre-Fukushima. It should be noted that

diagnoses rarely exceed 10 millisieverts (CT scan level), which is well-below the generally acknowledged threshold of harm of 100 millisieverts. <http://the-japan-news.com/news/article/0003251390>

October 3, 2016

- More evidence emerges for the Hiroshima Syndrome theory. Japanese epidemiologist Shigenobu Nagataki writes, “In order to distinguish atomic bomb sufferers from air-raid victims, radiation damage was adopted as the criterion for health support since that damage occurred only to the atomic bomb survivors... every successful legal trial aimed at obtaining relief for survivors used health damage caused by radiation as the main justification. Therefore, *damage due to radiation could be misunderstood as representing the entire damage caused by atomic bombs and this misunderstanding could be the cause of the excessive fear of radiation that started in Japan and spread across the globe.*” (emphasis added) [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(16\)31728-7/fulltext?elsca1=etoc](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(16)31728-7/fulltext?elsca1=etoc)
- The NRA will not allow Tepco to freeze the entire “ice wall” at F. Daiichi. The east side of the wall, parallel to the shoreline, has frozen. However, there are seven large gaps in the rest of the underground structure that the Nuclear Regulatory Authority refuses to let Tepco freeze. Thus, 95% of the western ice wall is frozen, but 5% remains untouched. The wall is intended to stanch the inflow of groundwater that moves through the soil from the west. Tepco wants to close the gaps, but the NRA’s Deputy Chair Toyoshi Fuketa said, “That’s out of the discussion... [Tepco] needs to come up with measures that do not rely on the ice wall and complete the removal of the tainted water from the building by 2020.” Thus, the NRA is the reason the project has not stopped groundwater from coming into the basements of units #1 through 4, at a rate of about 180 tons per day. <http://www.japantimes.co.jp/news/2016/09/30/national/tepcos-admits-success-fukushima-ice-wall-still-unknown/#.V-5gPtLr0dU>
- Tokyo considers placing a cap on nuclear accident liability. PM Shinzo Abe’s cabinet will give a plan for limited liability to an expert panel. The decision is expected to be rendered by March 31st - the end the current fiscal year. Subsequently, the Science Ministry will amend related laws accordingly. Because of the huge outlay of money inflicted on Tepco since 2011, with no viable end in sight, all Japanese utilities have been asking Tokyo to put a ceiling on liability expenditures. Buried within the proposal is one interesting caveat – if the upper limit is reached, the utility would have to pay additional costs if it can be proven that the accident is completely attributable to their actions. However, if an accident is caused by a natural disaster, such as a massive tsunami, coverage beyond the upper limit falls on both Tokyo and the utilities in concert. Some “experts” say a limit would make utilities less concerned about safety. Tadashi Otsuka, professor of law at Waseda University, said, “There is a possibility that those companies will place less importance on investing in safety measures.” <http://www.asahi.com/ajw/articles/AJ201610020022.html> (Comment - The March 2011 F. Daiichi accident was largely the fault of then-PM Naoto Kan’s order to delay depressurizing unit #1 until after a 3am press conference was held, and his additional order to have the 3km radius around F. Daiichi completely evacuated.

This caused an ~8 hour delay in the venting operation. If not for the delays, low pressure water pumps could have cooled the reactor core, likely averting the subsequent hydrogen explosion and the melt-downs of units #2 & 3. Further, the exorbitant compensations paid to each Tokyo-mandated evacuee – running at more than \$9,000 per month (not including free housing) for more than 5 years - was also one of the Kan regime’s ideas, made into law by creating the Nuclear Damage Compensation and Decommissioning Facilitation Corp. The burden ought to have been placed squarely on Tokyo because the then-PM was clearly the culpable party. Such bungling of fiscal responsibility should never be allowed to happen again.)

- A retail chain opens a mobile sales service in Tomioka Town. The Ito-Yokado Company’s Taira subsidiary, located in Iwaki City, sends a refurbished truck to a commercial lot in Tomioka on Wednesday’s and Fridays. It has some 500 items for sale, including boxed lunches, fresh meat, fish, vegetables, drinks, confectionery, toilet paper, kitchen goods, and clothing. Additional items may be ordered through the retail company and delivered on the next visit. The chain’s store in Tomioka, closed due to the evacuation order, is scheduled to reopen at some point after the living restrictions are lifted in April. Until then, the mobile service will try and fulfill the resident’s needs. On September 17th, Tomioka Mayor Koichi Miyamoto and Kuniaki Fukui, head of the Public-Private Fukushima Soso Reconstruction Joint Team, joined local officials in a ribbon-cutting ceremony marking the start of the mobile sales service.
<http://www.fukushimaminponews.com/news.html?id=730>
- Fukushima fisheries have already brought in more seafood for 2016 than in all of 2015. This will make it the best year since the nuke accident in 2011. As of Sept. 22nd, the haul totaled 1,596 tons, climbing past 1,512 tons brought in last year. The prefecture says the increase is due to more fishermen partaking in the “test” operation, and a greater number of species allowed to be taken by the government. However, the total is only about 10% of the haul realized in 2010. The entire 2016 haul has tested below the national limit for radioactivity, which is 100 Becquerels per kilogram.
<http://www.fukushimaminponews.com/news.html?id=731>

Information Notices

Unless otherwise noted, these are 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/2013/>.

To access these documents use the ADAMS Accession number listed with the title.

This is in the format of : ML#####A###

Part 21 and Miscellaneous

Information Notice 2016-12, "Potential Absence of Required Lock Washers in BSI Instruments, Inc. LB 7400 Series Fixed Gauges," dated October 20, 2016
ADAMS Accession No. ML16217A237

FirstEnergy

Davis-Besse, Field Monitoring Teams Radiation Monitoring Teams Field Surveys.
ADAMS Accession No. ML16243A032

Davis-Besse

Davis-Besse Nuclear Power Station, Unit No. 1 - Request for Additional Information Regarding License Amendment Request to Adopt National Fire Protection Associated Standard 805 (CAC No. MF7190)
ADAMS Accession NO. ML16256A066

Davis-Besse Nuclear Power Station Completion of Required Action by NRC Order EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (TAC No. MF0961).
ADAMS Accession No. ML16267A471

Perry

PERRY NUCLEAR POWER PLANT, UNIT 1 – REQUEST FOR ADDITIONAL INFORMATION RELATED TO LICENSE AMENDMENT REQUEST FOR UPPER CONTAINMENT POOL GATE INSTALLATION DURING MODES 1, 2, AND 3 AND DRAIN DOWN OF UPPER CONTAINMENT POOL DURING MODE 3 (CAC NO. MF7476) (L-16-083)
ADAMS Accession No: ML16279A043

Beaver Valley

Beaver Valley Power Station, Units 1 and 2 - Summary of August 30, 2016, Meeting with FirstEnergy Nuclear Operating Company Regarding Planned Submittal of Emergency Action Level Scheme Change
ADAMS Accession No. ML16250A501

Beaver Valley Power Station: NRC Investigation Report No. 1-2015-023

ADAMS Accession No. ML16277A068

Beaver Valley Power Station, Unit Nos. 1 and 2 - Staff Assessment of the Reactor Vessel Internals Inspection Plan (CAC Nos. MF3416 and MF3417)

ADAMS Accession No. ML15363A383

INITIAL OPERATOR LICENSING OPERATING TEST APPROVAL – BEAVER VALLEY POWER STATION, UNIT 1

ADAMS Accession No. ML16292A483

Region I Operator Licensing Examination and Inspection Schedule (from Oct 16).

ADAMS Accession No. ML16285A024

Beaver Valley, Units 1 and 2 - Proposed Alternatives and Relief Requests Associated With the Inservice Testing Program 10-Year Update.

ADAMS Accession No. ML16245A320

Beaver Valley Power Station, Submittal of Discharge Monitoring Report.

ADAMS Accession No. ML16277A144

Beaver Valley Power Station, Unit 2 - Correction to Relief Request 2-TYP-3-RV-04, Revision 0, Regarding Repair Activities for Reactor Vessel Head Penetration Nozzles and Associated J-Groove Welds (CAC No. MF6776)

ADAMS Accession No. ML16228A408

There were 16 USFAR sections – redacted on October 2016. These are in the form of:

“Beaver Valley, Unit 2 - ### UFSAR Section ## - Redacted”

Please refer to the ADAMS page listed above for specific reports.

Portsmouth Facilities

Request for Termination of Cyber Security Plans for the American Centrifuge Operating, LLC - Security-Related Information and Official Use Only.

ADAMS Accession No. ML16272A244

SECY-16-0106: FRN: Final Rule: 10 CFR Part 61 Low-Level Radioactive Waste Disposal (RIN 3150-A192) Enclosure 1

ADAMS Accession No. ML16188A371

American Centrifuge Plant and Lead Cascade Facility - Transmittal of Supplemental Changes for Review & Approval of Security Programs - Security-Related Information, Official Use Only and Export Controlled Information.

ML16300A215

Transmittal of Security Incident Log per 10 CFR 95.57(b) for American Centrifuge Operating, LLC - Security-Related Information.

ML16293A587

Fermi 1

No reports

Fermi 2

FERMI, UNIT 2 – SAFETY EVALUATION REGARDING IMPLEMENTATION OF MITIGATING STRATEGIES AND RELIABLE SPENT FUEL POOL INSTRUMENTATION RELATED TO ORDERS EA-12-049 AND EA-12-051

ADAMS Accession No.: ML16258A040

INFORMATION REQUEST TO SUPPORT UPCOMING TEMPORARY INSTRUCTION 191 INSPECTION AT FERMI POWER PLANT, UNIT 2

ADAMS ACCESSION NUMBER ML16288A740

Fermi 2 - DTE Response to NRC Generic Letter 2016-01, "Monitoring of Neutron-Absorbing Materials in Spent Fuel Pools."

ADAMS Accession No. ML16286A280

Fermi, Unit 2, Revision 20 to Updated Final Safety Analysis Report. Appendix A.

ADAMS Accession No. ML16165A448

Fermi 2 Revision 20 to Updated Final Safety Analysis Report, Chapter 17.

ADAMS Accession No. ML16165A452

Fermi 2 Revision 20 to Updated Final Safety Analysis Report, Chapter 14.

ADAMS Accession No. ML16165A450

Fermi 2 Revision 20 to Updated Final Safety Analysis Report, Chapter 13.

ADAMS Accession No. ML16165A447

Fermi 2 Revision 20 to Updated Final Safety Analysis Report, Chapter 15.

ADAMS Accession No. ML16165A451

Letters to Tribal Nations for Fermi 2 FSEIS.

ADAMS Accession No. ML16141B271

Fermi 2 Revision 20 to Updated Final Safety Analysis Report, Chapter 11.

ADAMS Accession No. ML16165A445

Fermi 2 Revision 20 to Updated Final Safety Analysis Report, Chapter 12.

ADAMS Accession No. ML16165A446

Fermi, Unit 2, Revision 20 to Updated Final Safety Analysis Report, Chapter 9, Auxiliary Systems.

ADAMS Accession No. ML16165A460

Fermi, Unit 2, Revision 20 to Updated Final Safety Analysis Report, Chapter 10, Steam and Power Conversion System.

ADAMS Accession No. ML16165A462

Fermi, Unit 2, Revision 20 to Updated Final Safety Analysis Report, Chapter 8, Electric Power.

ADAMS Accession No. ML16165A459

Fermi 3

No reports