To: Jim Mehl, ERU Supervisor

From: Zack Clayton, Rad Coord

Subject: December Monthly Report

Date: January 4, 2008

Beans:

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

Web Page Hits: There were 57 RAD hits in December.

Coming Attractions:

Working Group	1/3
SAIC	1/7 1/14 1/28
URSB	1/7
CBRNE Training	1/9
NEPAC	1/17

Facility Updates:

Davis Besse Nuclear Power Station

Davis Besse operated in December until just after midnight on the 30th to start the 15th refueling outage and perform a required NRC weld overlap inspection for 2007.

Perry Nuclear Power Plant

Perry entered December in an unplanned outage that ended 12/6. Perry synchronized to the grid on 12/10. The Reactor Core Injection Spray system was available for use, but due to a sensor issue the technical status of this system was not operational until 12/21. An Annulus Exhaust Gas vent system went off line on the 21st while the second system was under maintenance. The second system was placed back online within 20 minutes. The annulus is the space between the containment shell and the concrete missile shield visible from the outside of the plant and commonly called the “containment”. See Event 43860

Beaver Valley Unit I

Beaver Valley Unit I operated for December at full power.

Beaver Valley Unit II

Beaver Valley Unit II operated at full power for December.

Fermi II

Fermi is reporting two old events in liu of a written LER report. See numbers 43840 and 43850. Fermi operated at full power for December.

Portsmouth Gaseous Diffusion Plant

Meetings:

12/5 Working Group at OEMA discussed the Perry shutdown issues. The Emergency Reactor Data System will be available to the state and training has started for the personnel involved in accesing the information.

12/18 IZRRAG Table top exercise at OEMA. This exercise is to ensure readiness to advise on recovery and relocation of an affected population in case of a radioactive release from one of the plants.

12/3 12/17 SAIC

Office Issues:

No outstanding office issues.

NRC Reports and Statistics:

December operating power levels

Date	BV1	BV2	DB	Fermi	Perry	
1	100	100	100	100	0	
3	100	100	100	100	0	
7	100	100	100	100	1	Perry returning to power – levels will fluctuate for several days.
10	100	100	100	100	19	Perry synchronized to grid.
17	100	100	100	100	100	
24	100	100	100	100	100	
31	100	100	100	100	100	

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Tritium hazard rating 'should be doubled'

- 17:47 29 November 2007
- NewScientist.com news service
- Bob Edwards

Radioactive tritium, commonly discharged in large amounts by civil and military nuclear plants around the world, may be more dangerous than previously thought.

The cancer risk for people exposed to tritium could be twice as high as previously assumed, an expert report for the UK government's Health Protection Agency (HPA) concludes.

The report suggests that international safety standards need to be tightened up, which will put pressure on nuclear plants to cut their emissions.

Mark Little, one of the report's authors from Imperial College in London stresses that the risks are still low, even amongst nuclear workers with the highest exposures. But evidence that tritium causes more biological damage than assumed is "solid enough" to justify a change, he says.

Tritium – a radioactive isotope of hydrogen with a half-life of 12.3 years – is an essential component of the H-bomb and a waste product of the nuclear power industry. It is also widely used in medicine, and would help fuel future nuclear fusion reactors, if they ever become viable.

Vast quantities

Since the 1950s, vast quantities of tritium have been released into the environment from numerous nuclear plants, including Savannah River in the US, Sellafield in the UK, Marcoule in France, and Ontario Power Generation in Canada.

Workers are known to have been exposed at other facilities, including Aldermaston in England and Mayak in Russia.

But the 100-page report from the HPA's Advisory Group on Ionising Radiation, argues that the weighting factor used by the International Commission on Radiological Protection (ICRP) in Stockholm, Sweden, to assess risks should be increased from one to two. This means that the maximum acceptable radiation doses worldwide would have to be recalculated.

Wide dispersal

"Tritium is not highly radioactive, but it can become widely dispersed in the environment, and we felt a special review of the evidence was necessary," says the advisory group's chairman, Bryn Bridges.

The health risks of tritium were investigated in response to a recommendation in 2004 from the UK government's former Committee Examining Radiation Risks of Internal Emitters (CERRIE). According to one of the committee's members, nuclear consultant, Pete Roche, the weighting factor for tritium was lowered in 1969 because of pressure from the US military.

"There have been calls for it to be increased ever since," he says. "In the meantime the industry can no longer assume it will be allowed to release large quantities of tritium."

The Nuclear Decommissioning Authority, which is responsible for many of the tritium-emitting plants in the UK, promises to "consider carefully the impact of any agreed increase in radiation weighting." The ICRP's scientific secretary, Jack Valentin, says: "We will look at this, and we will be considering it."

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THE AGE

Greenpeace is wrong — we must consider nuclear power

Patrick Moore
December 10, 2007

FOR years the Intergovernmental Panel on Climate Change of the United Nations has warned us that greenhouse gas emissions from our fossil fuel consumption threaten the world's climate in ways we will regret. This year it won the Nobel Peace Prize for its efforts.

You don't have to be a true believer in human-caused climate change to take the IPCC's opinion seriously. We are contributing to a change in the chemistry of the global atmosphere by increasing its carbon dioxide concentration at an appreciable rate. Even a sceptical person must accept that there is a risk associated with altering the balance of greenhouse gasses on a global scale. And there is no doubt that the most effective way to limit this risk is to reduce our dependence on fossil fuels.

It is the IPCC that my former colleagues in Greenpeace, and most of the mainstream environmental movement, look to for expert advice on climate change. Environmental activists take the rather grim but measured language of the IPCC reports and add words such as "catastrophe" and "chaos", along with much speculation about famine, pestilence, mass extinction and the end of civilisation as we know it.

Until the past couple of years, the activists, with their zero-tolerance policy on nuclear energy, have succeeded in squelching any mention by the IPCC of using nuclear power to replace fossil fuels for electricity production. Burning fossil fuels for electricity accounts for 9.5 billion tonnes of global carbon dioxide emissions while nuclear power emits next to nothing. It has been apparent to many scientists and policymakers for years that this would be a logical path to follow. The IPCC has now joined these growing ranks advocating nuclear energy as a solution.

In its recently issued final report for 2007, the IPCC makes a number of unambiguous references to the fact that nuclear energy is an important tool to help bring about a reduction in fossil fuel consumption. Greenpeace has already made it clear that it disagrees. How credible is it for activists to use the IPCC scientists' recommendations to fuel apocalyptic fund-raising campaigns on climate change and then to dismiss the recommendations from the same scientists on what we should do to solve it?

Already, the 442 nuclear reactors worldwide are producing 16% of our electricity. It follows that 1000 reactors would produce 36% and so on, with negligible greenhouse gas emissions, replacing fossil fuel plants. But Greenpeace's policy is that we should not only build no new reactors but that we should shut down all the existing ones, thus inevitably forcing us to replace them with fossil fuel power plants. Oh no, says Greenpeace, we can replace the fossil fuel plants with wind and solar power. Here it is at its most deceitful.

Greenpeace is deliberately misleading the public into thinking that wind and solar energy, both of which are inherently intermittent and unreliable, can replace baseload power that is continuous and reliable. Only three technologies can produce large amounts of baseload power: fossil fuels, hydroelectric plants and nuclear power. Given that we want to reduce fossil fuels and that potential hydroelectric sites are becoming scarce, nuclear power is the main option. But Greenpeace and its allies remain in denial despite the fact that many independent environmentalists and now the IPCC see the situation clearly.

Over the past 10 years, Germany and Denmark have poured billions of taxpayers' euros into wind and solar energy in the vain hope that this would allow them to shut down fossil fuel and nuclear plants. They have not succeeded because every solar panel and every wind turbine must be backed up by reliable power when the sun isn't shining and the wind isn't blowing. Wind does have a role to play when peak power is needed and the wind is blowing because then it is possible to turn off some fossil generation. Solar power is so expensive that only the richest countries can afford the luxury. The real crime is that precious dollars spent on solar panels rob money that could be spent on much more cost-effective technologies such hydroelectric, nuclear, geothermal and biomass sources.

I have long realised that in retrospect we made a big mistake in the early years of Greenpeace when we lumped nuclear energy with nuclear weapons as if they were all part of the same holocaust. We were totally fixated, and rightly so, on the threat of all-out nuclear war between the Soviet Union and the United States and we thought everything nuclear was evil.

We failed to distinguish the beneficial and peaceful uses of nuclear technology from its destructive and even evil uses. It would be like including nuclear medicine with nuclear weapons just because nuclear medicine uses radioactive materials, most of which are produced in nuclear reactors.

Greenpeace and company are stuck in the 1970s when it comes to the policy on energy as it relates to climate change. They have invested a great deal of time and money convincing their supporters that nuclear energy is evil. It is time they came clean on the reality facing us all in the 21st century. They should accept the wisdom of the scientists at the IPCC and recognise that nuclear energy is a big part of the climate change solution. And they should stop misleading the public into thinking that wind and solar power can do the job on their own. I will be the first to commend them for their courage.

An adviser to government and industry, Dr Patrick Moore is a co-founder and former leader of Greenpeace, and chairman and chief scientist of Greenspirit Strategies.

This story was found at: ***http://www.theage.com.au/articles/2007/12/09/1197135284092.html***

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Article published December 16, 2007

Ohio, Michigan running out of ways to store their radioactive waste

But closing of S.C. landfill isn't sounding alarms yet

By TOM HENRY
BLADE STAFF WRITER

Michigan and Ohio are among 36 states that will have a greater buildup of radioactive waste after July 1 if a South Carolina landfill
follows through with its plans to start turning them away. But the two neighboring states won't likely exchange words as harsh
as they did in the early 1990s, when both took turns scouring their landscapes for a possible site to bury tons of low-level radioactive
waste from several Midwestern states. "Like almost everyone else, we're hoping that Barnwell doesn't actually close next summer. But by all indications, it will," Thor Strong, chief of the Michigan Department of Environmental Quality's radiological protection section, said.
He was referring to the low-level radioactive waste dump near Barnwell, S.C., one of only three in the country and one that almost all states outside of the Pacific Northwest and Rocky Mountain regions have relied upon for 36 years. Open since 1971, the 235-acre Barnwell site has taken in all three classes of low-level radioactive waste at its facility near the Georgia line. It is operated by Utah-based EnergySolutions, formerly Envirocare, the same company that operates a low-level radioactive waste dump in Clive, Utah,

some 80 miles west of Salt Lake City. The Utah dump is licensed to accept only Class A waste, which emits the
least radiation.

Washington facility

Barnwell's only equivalent is the low-level radioactive waste landfill operated by U.S. Ecology Inc. at the
federal Hanford Nuclear Reservation 23 miles west of Richland, Wash. Low-level radioactive waste runs the gamut from medical clothing to nuclear tubing, virtually everything with radiation other than spent fuel that's been pulled from reactor cores of nuclear plants such as FirstEnergy Corp.'s Davis-Besse in Ottawa County and DTE Energy's Fermi 2 in Monroe County.

A 1998 report by the Government Accountability Office - then called the General Accounting Office - acknowledged that low-level waste should not necessarily infer low levels of radiation to the layman, though, because the definition is so broad.

Spent nuclear fuel is the only thing in civilian hands classified as high-level radioactive waste. Research continues into whether it should be buried inside Nevada's Yucca Mountain or some other repository the federal government might develop.

Nuclear plants generate most low-level radioactive waste. But it can be found in hospitals, medical laboratories, and other health facilities, universities, and certain types of industries.

For now, the waste likely will pile up on the various sites where it is generated or, in the case of medical facilities and universities, taken away by manufacturers or their contractors responsible for storing it elsewhere. Mr. Strong said he doesn't "foresee a resurrection of the earlier Michigan siting process," one that fell apart in 1991 over consideration of 13,700 acres in Lenawee County's Riga Township across the state line from Sylvania and 15 miles from downtown Toledo.

Michigan, Ohio, and five other states - Indiana, Iowa, Minnesota, Missouri, and Wisconsin - had united to form an interstate compact in response to a 1980 federal law that made states responsible for selecting and licensing sites. Michigan, the compact's original host state, was to take the lead in establishing a site. When it failed to do that - in part because of the backlash over the Riga Township land - it was ousted from the Midwest interstate compact.

Ohio, which generated the most waste among the Midwest compact's six other states, then was assigned the task. It never settled on a site, either. The controversy fizzled in the Ohio General Assembly largely because South Carolina - despite repeated warnings to the contrary - kept the Barnwell site open to states outside of its Atlantic interstate compact, which includes Connecticut and New Jersey.

States found it easier to pay rate increases than risk the political backlash of developing sites within their compacts or on their own.

But such pressures intensified within South Carolina, leading to the current dilemma. David Umphlett, a South Carolina legislator who at first supported a bill that would have kept the Barnwell site open to the rest of the country through 2023, told a South Carolina newspaper last spring that the 36 other states using that landfill "need to get up off their backsides and start doing what's right." "They want to stomp us in the ground and beat us up and say, 'You bunch of country hicks.' I'm just getting tired of it," said Mr. Umphlett, part of a contingent that killed the legislation.

But Keith Sloan, chairman of the Barnwell County Council and owner of a South Carolina accounting and tax firm, said in an editorial posted at www.truthaboutbarnwell.com that the current situation has been exacerbated by fear mongering. He said it will be a mistake limiting

Barnwell's clientele, one that will "create an economic crisis in my county." The landfill provides 15 percent of Barnwell County's budget, as well as jobs. "Limiting Barnwell to serving only Connecticut, New Jersey, and South Carolina makes no sense, unless your ulterior motive is to thwart nuclear power," Mr. Sloan wrote.

State on notice

South Carolina's message apparently has gotten through loud and clear to the right people in this area. Yet they seem to be relatively unfazed by it. Bob Owen, chief of the Ohio Department of Health's bureau of radiation protection, said he's "not aware of
any move afoot to keep it open." Roger Suppes, assistant chief of the Ohio health department's prevention division, said waste generators have been preparing for years, incorporating methods to reduce their waste volume and operate more efficiently.

There also have been advances in treatment technology to help minimize the contamination, he said. "That's why we're in a better position than before," he said.

The two Ohio health officials, as well as Mr. Strong of Michigan, are keeping their fingers crossed for promising options on the horizon, including the possible opening of a new low-level radioactive waste dump in west Texas. It would be operated by Waste Control Specialists LLC, of Pasadena, Tex., at its Andrews facility on 16,000 acres adjacent to the New Mexico border.

The Texas Commission on Environmental Quality is deciding whether to issue a final license to the site for the disposal of tons of waste already at the site. It came from a former Energy Department uranium processing plant in Fernald, Ohio, 18 miles northwest of Cincinnati.

Federal options

Area officials also are hopeful Congress will offer some federal options, such as storage or disposal at secured U.S. Department of Energy laboratory sites, including the Nevada Test Site west of Las Vegas; the Energy laboratory in Oak Ridge, Tenn., and the Hanford facility in eastern Washington.

"I don't think there's that emergency disaster problem," Mr. Suppes said, though acknowledging the radioactive material likely will pile up before a replacement for the Barnwell site is confirmed. Mr. Strong said there are "a number of options, none highly likely in the short term." "Clearly, there will be some that will need to be stored on site," he said. "Nobody is looking at it as a waste management crisis if Barnwell closes down [to Michigan and Ohio]. For most entities other than nuclear power plants, it's a small amount of Class B and Class C waste."

Contact Tom Henry at:
thenry@theblade.com

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Power Reactor	Event Number: 43840
Facility: FERMI Region: 3 State: MI Unit: [2] [ ] [ ] RX Type: [2] GE-4 NRC Notified By: RODNEY JOHNSON HQ OPS Officer: JOE O'HARA	Notification Date: 12/12/2007 Notification Time: 17:02 [ET] Event Date: 10/14/2007 Event Time: 02:00 [EST] Last Update Date: 12/12/2007
Emergency Class: NON EMERGENCY 10 CFR Section: 50.73(a)(1) - INVALID SPECIF SYSTEM ACTUATION	Person (Organization): JOHN MADERA (R3)

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

Event Text

INADVERTENT ACTUATION OF EMERGENCY DIESEL GENERATOR

"This 60-day optional telephone notification as allowed by 10 CFR 50.73(a)(1) is being made in lieu of an LER submittal. This notification is made pursuant to the reporting requirements specified in 10 CFR50.73(a)(2)(iv)(A) for an invalid actuation of one of the systems listed in 10 CFR 50.73(a)(2)(iv)(B).

"On October 14, 2007, at approximately 0200 hours EST with the plant in Mode 5, Refueling, while performing ECCS Start and Load Reject surveillance testing on Emergency Diesel Generator (EDG) 14, the EDG unexpectedly auto-started. Investigation revealed that the auto-start was caused by a faulty test switch. The test switch had been tested multiple times prior to performing the surveillance with no abnormalities noted.

"EDG 14 is one of two EDG's in Division II of the Onsite Emergency Power system. The EDG responded properly to the auto-start signal. The actuation was complete, in that the EDG started and ran unloaded. The surveillance testing was immediately stopped upon receipt of the inadvertent actuation. In accordance with the EDG operating procedure, the EDG was synchronized, loaded for about an hour, shut down and returned to standby status.

"Since no actual plant condition existed that required the EDG to auto-start, the actuation was invalid. There were no safety consequences or impact on the health and safety of the public. The event was entered in the corrective action program for evaluation and resolution.

"The NRC Resident Inspector will be notified of this report."

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Power Reactor	Event Number: 43850
Facility: FERMI Region: 3 State: MI Unit: [2] [ ] [ ] RX Type: [2] GE-4 NRC Notified By: RODNEY JOHNSON HQ OPS Officer: JOE O'HARA	Notification Date: 12/18/2007 Notification Time: 10:43 [ET] Event Date: 10/22/2007 Event Time: 18:30 [EST] Last Update Date: 12/18/2007
Emergency Class: NON EMERGENCY 10 CFR Section: 50.73(a)(1) - INVALID SPECIF SYSTEM ACTUATION	Person (Organization): ERIC DUNCAN (R3)

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

Event Text

INVALID SYSTEM ACTUATION

"The following information is provided as a 60 day telephone notification under 10 CFR 5O.73(a)(l) in lieu of submitting a written LER to report a condition that resulted in an invalid actuation of a 10 CFR 50.73(a)(2)(iv)(B) system. NUREG 1022, Revision 2, identifies the information that is to be

reported as discussed below.

"On October 22. 2007, at 1830 hours, Division 2 of Residual Heat Removal (RHR) was being placed in Shutdown Cooling (SDC) following completion of a SDC outage. The plant was in Mode 5, Refueling. Reactor Protection System (RPS) A was deenergized for maintenance. RPS B was being supplied by the alternate supply because the B RPS Motor Generator was removed from service for maintenance. Upon start of the RHR D pump motor the RPS B Alternate Supply Electrical Protection Assembly (EPA) breakers tripped due to sensed undervoltage. The loss of the power supply to RPS B resulted in the following: A reactor scram (all rods were already fully inserted), RHR SDC outboard valve isolation, trip of the Reactor Water Cleanup System (RWCU), outboard valve isolation of the Torus Water Management System (TWMS).

"A secondary containment isolation also occurred resulting in a trip of Reactor Building Heating Ventilation and Air Conditioning (HVAC), auto start of Division 2 of Standby Gas Treatment System (SGTS), and shift of the Control Center HVAC system to recirculation mode. All actuations and isolations were as expected for existing plant conditions. The initiation signal was invalid because it did not result in response to an actual plant parameter, nor did it trip as a result of any other requirement for initiation of a safety function. Due to the actuation of equipment in multiple systems that were not removed from service or otherwise prevented from changing states, this event is reportable under 50.73(a)(2)(iv) as an invalid actuation of one of the specified systems.

"The reactor scram actuation was complete because a half scram was already present due to RPS A being deenergized for maintenance. The Division 2 SGTS system automatically started, secondary containment fully isolated, Reactor Building HVAC system tripped, and the Control Center HVAC fully shifted into the recirculation mode. The following were partial isolations due to loss of RPS B, Division 2: RHR SDC isolation and TWMS isolation.

"All systems functioned properly in response to the RPS power loss based on refuel outage system configurations."

The licensee believes that the cause of the undervoltage was a result of the start of the RHR pump which caused an in-rush current. The licensee is considering a design change, and captured this event in their corrective action program system as CARD 07-26537.

The licensee will notify the NRC Resident Inspector.

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Power Reactor	Event Number: 43860
Facility: PERRY Region: 3 State: OH Unit: [1] [ ] [ ] RX Type: [1] GE-6 NRC Notified By: ROBERT KIDDER HQ OPS Officer: MARK ABRAMOVITZ	Notification Date: 12/21/2007 Notification Time: 12:31 [ET] Event Date: 12/21/2007 Event Time: 08:25 [EST] Last Update Date: 12/21/2007
Emergency Class: NON EMERGENCY 10 CFR Section: 50.72(b)(3)(v)(C) - POT UNCNTRL RAD REL 50.72(b)(3)(v)(D) - ACCIDENT MITIGATION	Person (Organization): ERIC DUNCAN (R3)

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

Event Text

SECONDARY CONTAINMENT BYPASSED FOR SHORT PERIOD

"Annulus Exhaust Gas Treatment System (AEGTS) 'A' was removed from service (INOPERABLE) to obtain a charcoal sample. AECTS 'B' Train was the OPERABLE Train. At 0825 hours, the charcoal plenum for the 'A' train was opened to obtain a charcoal sample resulting in alarms for AECTS 'B' low flow and Annulus low differential pressure. Based on this indication AEGTS 'B' and secondary containment were INOPERABLE. AEGTS 'B' flow was restored to normal following closure of the charcoal plenum and annulus differential pressure was restored to normal at 0833 hours, restoring secondary containment.

"AEGTS 'B' was declared operable at 0845 hours. Early indication is that a discharge damper in the AEGTS 'A' train had not operated properly. This condition was determined to be reportable in accordance with 10 CFR 50.72(b)(3)(V)(C) and (D), as condition that could have prevented the safety function of structures or systems that are needed to: (C) Control the release of radioactive material; or (D) Mitigate the Consequences of an accident."

The licensee notified the NRC Resident Inspector.

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