

To: Jim Mehl, ERU Supervisor  
From: Zack Clayton, Rad Coord  
Subject: January Monthly Report  
Date: February 4, 2008

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**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 entered January in Refueling outage 15.

**Perry Nuclear Power Plant**

**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 operated at full power for January.

## Portsmouth Gaseous Diffusion Plant

### Meetings:

1/3 Working Group

1/7 URSB

1/17 NEPAC

1/7 1/14 1/28 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
7	100	100	100	100	1
14	100	100	100	100	100
21	100	100	100	100	100
28	100	100	100	100	100
31	100	100	100	100	100

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## FirstEnergy reports minor seepage at nuclear plant

Published on Tuesday, Jan 08, 2008

From staff and wire reports

Akron's FirstEnergy Corp. reported Monday having "seepage" from a waterline used to cool the Davis-Besse nuclear reactor in Ohio while it is idled.

The radioactive seepage doesn't affect workers or the public, and isn't measurable, said Todd Schneider, a company spokesman. The problem didn't occur while the plant was operating, he said. Schneider declined to say when the reactor, which is shut for refueling and maintenance, might return to full power. He said the seepage repairs aren't expected to significantly change the schedule.

Davis-Besse is about 30 miles southeast of Toledo. The reactor's capacity is about 898 megawatts, according to the company. That means the unit can supply enough electricity for about 718,400 typical U.S. homes, based on U.S. Energy Department estimates. In 2002, workers at the plant found a corrosion hole in the top of the reactor. FirstEnergy was unable to restart the reactor for two years. The utility has paid a record \$33.5 million in fines for lying to the government about Davis-Besse's operating status in the fall of 2001, weeks before the historic 2002 shutdown.

**Find this article at:**

<http://www.ohio.com/business/13519872.html>

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Article published January 8, 2008

## Radioactive water seeps from pipe leak at Davis-Besse nuclear plant

By **TOM HENRY**

**BLADE STAFF WRITER**

OAK HARBOR, Ohio — Radioactive coolant water seeped from a pipe in the Davis-Besse nuclear power plant's containment area Friday morning as an old weld was being reinforced with a metal overlay, FirstEnergy Corp. and federal officials said yesterday.

The leakage was too small to be measured, officials said. The utility and the Nuclear Regulatory Commission said the leak did not harm workers, who were wearing protective clothing. The nuclear plant has been idle since late December for refueling. The pipe in question is part of the reactor coolant system's decay heat suction line.

The same tube had moisture on it yesterday afternoon. But leakage was so inconsequential it was "not dripping," Marla Lark-Landis, a FirstEnergy spokesman, said. FirstEnergy is in the process of reinforcing 16 of the plant's aging welds.

Attempts to reinforce the leaking one were halted until FirstEnergy determines the crack's type, location, and size. An ultrasonic examination that is expected to be done today will help the utility determine its course of action for the fix, she said.

Todd Schneider, another utility spokesman, said the repair is not expected to delay the plant's restart. Nuclear plants are refueled once every 18 months to two years, with outages typically lasting 30 to 45 days. Viktoria Mitlyng, NRC spokesman, said the crack appears to have occurred as FirstEnergy was complying with an agency directive to reinforce welds at which two different types of metal meet. "They were in the process of applying the fix when the leakage occurred," she said. Scott Burnell, another NRC spokesman, said the nuclear industry and the regulator have agreed that welds with differing types of metal need to be reinforced at plants with pressurized water reactors. Such welds can eventually give out because of their chemical makeup, plus the stress placed on them from that type of reactor's enormous operating pressure and temperature, the NRC said. Davis-Besse is one of the few nuclear plants that operates in excess of 600 degrees.

"The basic issue has been understood for several years," Mr. Burnell said. "When you have two different metals welded together in a [pressurized water] reactor environment, you can see cracking in that area." NRC records show the first cracked weld involving two or more types of metal was documented in 1993. In 2000, the regulatory commission and the industry agreed to give the issue more attention after more cracks were discovered.

The latest round of inspections were formalized last March, via an NRC document known as a confirmatory action letter.

Forty plants, including Davis-Besse, were put on notice to expedite their inspection plans.

The NRC cited its concern over the size and nature of cracks in pressurizer welds found at the Wolf Creek reactor near Burlington, Kan., in October, 2006. Five circular cracks — the most dangerous — were found in three Wolf Creek welds that had mixed metals. An NRC fact sheet said that was the first time multiple cracks of that type had been identified. The Wolf Creek incident raised questions about "the degree of safety margin present in past structural integrity evaluations," the agency said.

Davis-Besse is along Ottawa County's Lake Erie shoreline, about 30 miles east of Toledo. It is one of 70 nuclear plants with pressurized water reactors. The other 34, including DTE Energy's Fermi 2 nuclear plant north of Monroe, have boiling water reactors that operate at lower pressure and temperature. Changes are being contemplated for all plants in the American Society of Mechanical Engineers codes, the NRC said.

The Union of Concerned Scientists, a watchdog group based in Cambridge, Mass., said in a briefing issued by its Washington office yesterday that the repair at Davis-Besse could be "relatively simple" if the lone discovered crack turns out to be the plant's only one. "If not, the repairs and risk implications grow larger," according to the paper, written by David Lochbaum, a former nuclear safety engineer and the group's nuclear safety project director.

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## **Davis-Besse workers find small coolant leak**

Tuesday, January 08, 2008

**John Funk**

**Plain Dealer Reporter**

Workers reinforcing a pipe weld at the Davis-Besse nuclear power plant have discovered a small leak of reactor coolant coming from a crack in the weld.

The seepage is on a pipe joint inside the reactor containment building, and no radioactivity has leaked into the environment.

In a report released Monday morning by the Nuclear Regulatory Commission, plant owner FirstEnergy Corp. said a welder discovered the seepage in the weld joint of a 12-inch stainless-steel pipe early Friday. The corrosion-resistant pipe carries radioactive coolant to an outside cooling system when the reactor is not operating.

FirstEnergy shut down Davis-Besse on Dec. 30 to meet an NRC deadline that it inspect and reinforce pipe welds in 2007. The normal refueling shutdown would have occurred in February. Welds on joints connecting stainless steel piping have cracked at other power plants, and the agency issued a safety bulletin early last year requiring reinforcing overlays of an alloy material.

The weld in question was not leaking before workers began adding the overlay, said FirstEnergy spokesman Todd Schneider. He said it had been visually inspected in previous years during routine walkdowns of the reactor containment building. Engineers are now doing an ultrasonic inspection of the cracked weld to determine the size and shape of the crack, said Davis-Besse spokeswoman Marla Lark-Landis. She said workers will add reinforcing overlays to the welds of 15 other pipe joints, as required by the NRC.

Repair of the cracked weld will be done after crews unload the fuel rods from the reactor's core into a nearby cooling pool, she said. All fuel rods are typically off-loaded during refueling, even though only about a third of the fuel rods are replaced, she said.

The company did not provide an estimate of how long the weld repairs would take. Davis-Besse is about 25 miles east of Toledo and generates 898 megawatts of power. It has operated safely since 2004 after a two-year NRC shutdown for severe corrosion problems and numerous design flaws in key safety and emergency systems.

To reach this Plain Dealer reporter:

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In Rebuttal: Overblown fears of nuclear power  
There is no credible evidence that suggests nuclear power plants give their neighbors cancer

Wednesday, January 02, 2008  
By Bernard L. Cohen

I am writing in response to the Dec. 6 Forum commentary by Ernest J. Sternglass, "Trade Nukes for Gas." In it Mr. Sternglass claims that there have been excess cancers in areas near nuclear power plants, which he explains as due to radioactivity released from those plants.

Mr. Sternglass gives essentially no numerical data to support his claim of these excess cancers and has never published such data in a peer-reviewed scientific journal; on the contrary, there have been many careful studies published in such journals and in official government reports which searched for excess cancers near nuclear plants and could find no evidence for them.

But even if there were such excesses in the particular areas Mr. Sternglass carefully selects, he cites no reason to believe that they are caused by releases from nuclear plants. There are many environmental causes for cancer, and many of them, such as air pollution, chemicals and the effects of poverty, are especially important near the big cities cited by Mr. Sternglass. He offers no evidence that radiation was the cause.

The rational approach is to consider the quantities of radioactivity released, which are carefully monitored and publicly reported by government agencies, and calculate what their effects might be. These releases expose nuclear-plant neighbors to less than 0.1 percent of the unavoidable exposures they receive from natural sources such as radon in their homes, natural radioactivity in the ground and in the bricks and stones of which our buildings are constructed, cosmic rays, etc., not to mention exposures of similar magnitude that we receive from X-rays and other medical procedures.

But scientists agree that even these natural and medical exposures cannot be responsible for more than about 1 percent of all cancers. Clearly then, the thousand-times-smaller exposures that nuclear-plant neighbors receive from those plants cannot be responsible for the effects claimed by Mr. Sternglass.

Mr. Sternglass has been making claims about excess cancers near nuclear plants for more than 45 years, never publishing them in regular scientific journals, but getting publicity from them in the mass media.

As a result of this publicity, the governor of Pennsylvania set up a fact-finding committee consisting of eight distinguished scientists, including some known to be opposed to nuclear power; the 1974 report of that committee completely rejected the Sternglass assertions.

Other statements rejecting such claims have come from state agencies in West Virginia, Illinois, New York and Michigan, and from the National Cancer Institute, the U.S. Environmental Protection Agency, the U.S. Public Health Service, the U.S. Bureau of Radiological Health, the American Academy of Pediatrics, the editors of Nature magazine and the American Journal of Public Health, and a unanimously endorsed statement released by all past presidents of the Health Physics Society, the principal scientific society involved with radiation protection. Several anti-nuclear activists have publicly announced that they do not support Mr. Sternglass' claims.

The fact that Mr. Sternglass was a professor of radiology at the University of Pittsburgh is irrelevant. His research here dealt with X-ray image intensifiers, not with health impacts of radiation.

Mr. Sternglass' proposal to convert the two nuclear plants near Pittsburgh to burning natural gas would cost several billion dollars, which would eventually be paid by us in our electric bills. Moreover, burning natural gas

causes air pollution (albeit less than burning coal), which is a far greater threat to public health than the tiny radioactivity emissions from the nuclear plants, and it also contributes to global warming, which the use of nuclear power avoids.

Bernard L. Cohen is an emeritus professor of physics at the University of Pittsburgh ([blc@pitt.edu](mailto:blc@pitt.edu)).

<http://www.post-gazette.com/pg/08002/845890-109.stm>

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