Unsafe Operations:

Wisconsin reactors often reported & fined

NUKEWATCH FACT SHEET

Wisconsin has three operating nuclear power reactors, two at Point Beach and one at Kewaunee, that have been plagued with frequent unplanned shutdowns caused by accidents, resulting in official warnings, fines and even criminal convictions. A smaller reactor at La Crosse has been shutdown since 1987.

Only four "Red Findings" — the highest safety failure warning in the industry — have been issued by the Nuclear Regulatory Commission (NRC). Two of the four went to Point Beach's previous owner, the Wisc. Electric Power Co. (WEPCO). The two-reactor, 1,023-megawatt Point Beach nuclear station, about 30 miles southeast of Green Bay, is now owned by FPL Energy (formerly Florida Power & Light) of Juno Beach Florida.

January 15, 2008

At Point Beach's Unit 1, an "Unusual Event" emergency was prompted by the complete loss of all offsite electric power to essential "buses" for more than 15 minutes, mandating a notification of the Nuclear Regulatory Commission. A supply breaker opened "for unknown reasons," was being investigated and preparations were made for a Unit 1 shutdown.

— NRC Event Number 43907, date 1/15/08

January 12, 2007

A turbine and reactor trip at Kewaunee, now owned and operated by Dominion Resources Inc. of Richmond, Virginia, was caused by a loss of auto stop oil pressure on the main turbine. Following the trip one of the moisture separators associated with the main turbine had its associated steam inlet valve fail stick open which resulted in contaminated steam being vented to the environment. — NRC Event Number 43096, date 1/12/07

December 8, 2006

At Point Beach, the Control Room Emergency Filtration System was declared inoperable. The Control Room Charcoal Filter Fan tripped during a surveillance test, an event or condition that could have prevented the filter's performance during a contamination emergency or, in the NRC's words, "could have prevented fulfillment of a safety function."

— NRC Event Number 43040, date 12/8/06

October 16, 2006

At the long shut-down La Crosse reactor, airborne levels of radioactive americium-241 contamination rose to 10 times above normal inside the reactor building. By Oct. 16, "Reactor Building ventilation [to the outside environment] through HEPA filters had not reduced the level of Am-241 as expected. An Unusual Event was declared and investigations commenced to identify the source of the contamination. — NRC Event Number 42908, Notification date 10/16/06

August 22, 2006

In an August 22, 2006 letter to Point Beach, the NRC charged that a senior reactor operator was discriminated against by Point Beach management for identifying potential technical violations. The discrimination was an apparent violation of employee protection requirements.

— NRC, "Point Beach Summary," Inspection Procedure 95002, <nrc.gov/reactors/operating/ops-experience/degraded-cornerstone/pt-beach-summary.html>

August 14, 2006

The NRC announced that groundwater beneath the Kewaunee Power Station is contaminated with radioactive tritium. The NRC said the event was of "possible safety or public interest significance." Reactor staff detected measurable tritium in groundwater at several locations beneath the auxiliary and turbine buildings on Aug. 9. The contaminated water had leaked into four shafts beneath the two buildings which are used to measure possible settling of the structures. The shafts are not interconnected and indicate the presence of a large amount of contaminated water. The source of the 1-gallon-every-5-minutes leak was "unknown." — NRC Preliminary Notification of Event or Unusual Occurrence, No. PNO-iii-06-019, date 8/14/06

March 20, 2006

The Kewaunee reactor faces increased oversight from the NRC after being cited for two safety violations, one concerning failure to properly analyze the impact of flooding, and another involving a design flaw affecting the reactor's backup cooling water system. The NRC said in a letter to owner/operator Dominion Resources that the facility had a "moderate degradation in safety performance" last year while it was shutdown for 5 months.

— Mlwk *Journal Sentinel*, 3/20/06

December 19, 2005

Point Beach paid a $60,000 fine imposed Jan. 13, 2006 after two workers "deliberately provided NRC inspectors with inaccurate information" about the critique of an emergency preparedness drill at the reactor in August 2002. The two were fired, and one was convicted in federal court of knowingly making false written statements to the NRC.

— NRC News, No. III-05-046, 12/19/05

December 13, 2005

A manual reactor trip shutdown Point Beach's Unit 1, due to the loss of a condenser vacuum caused by failure of the circulating water pump. Decay heat was being removed by "atmospheric dump valves." The backup feedwater system was required. The operator, Florida Power & Light, said there are no "known" steam generator tube leak issues. — Notification of NRC, notice date 12/13/05, event date 12/13/05

November 29, 2005

A reactor shutdown at Kewaunee followed a Main Feedwater pump trip. All three Auxiliary Feedwater pumps automatic-ally started due to low steam generator level. The reactor had been stabilized at Hot Shutdown. "There are no known primary to secondary leaks," the operators said, not ruling out an *unknown* primary to secondary leak. "All safety related buses are powered from offsite power," the company said. — Notification to NRC, notice date 11/29/2005; 11/28/05.

November 25, 2005

The Control Room received a fire alarm and the fire protection system was activated on the Main Generator. Air sampling showed carbon dioxide in the Cardox Storage Tank Room at life-threatening levels. An Unusual Event was declared based on "a release of toxic or flammable gas on site and portable monitors indicate toxic or explosive concentrations at life-threatening levels of the gas near the spill area." Ventilation of the affected areas was in progress to reduce the toxic gas levels.

— Notification to NRC , 11/25/05 & 11/25/05

February 23, 2005

The Kewaunee reactor was shutdown when all three auxiliary feedwater pumps were declared inoperable. During the shutdown to fix the problem, an automatic reactor trip was caused by low water in the "B" steam generator. Another problem occurred when at least 1,000 gallons of service water, which is water drawn from Lake Michigan, entered the steam generators and had to be flushed out. — Preliminary Notification of Event or Unusual Occurrence to NRC, PNO-III-05-003, Doc. 50-305, 2/23/05

November 9, 2004

While operating at 100 percent power, Point Beach's Unit 2 sprang a steam leak from a valve in the main steam flow transmitter. The leak of potentially contaminated steam forced an unplanned shutdown. The leak involved what is called "containment penetration" of the main steam line passing through the concrete containment building. Accordingly, operators declared a Technical Specification Condition "not met," forcing operators to isolate the "affected penetration flow path with a completion time of 72 hours." Operators were unable to meet the allowed completion time for this task. — NRC Event Number 41212, Notification date 11/19/04

October 30, 2004

A worker was contaminated inside the Kewaunee reactor and was rushed to the hospital after immediate on-site decontamination attempts failed. The NRC said it did not know what isotopes had been involved. — NRC Notification, date 10/30/04; NRC Region 3 phone interview, 11/16/04

April 8, 2004

Point Beach paid a $60,000 fine imposed March 20, for last summer's problems with the reactor's backup cooling pumps.

— *The Capital Times*, 3/20/04

February 11, 2004

The ongoing risk of a breakdown in Point Beach's cooling feedwater pumps resulted in another NRC "Red" finding, the agency's most severe safety failure warning.

— NRC News, 2/11/04

October 2002

A "Red" finding was issued by the NRC against Point Beach for problems with cold water circulation for cooling the reactor.

— NRC *News*, 2/11/04

June 5, 2001

Kewaunee's reactor was shutdown when a computer's Safety Parameter Display System and Emergency Response Data System both failed. The operators did not know the status of "emergency response availability."

— NRC Event Number 38052, 6/5/01

November 18, 1997

Point Beach's Unit 2 was hastily shut down because of electrical problems. — Mlwk *Journal Sentinel*, 11/18/97

August 12, 1997

The NRC recorded 21 violations at Point Beach in the 90-day period between Dec. 1996 and Feb. 1997.

— *St. Paul Pioneer Press*, 8/12/97

July 25, 1997

Reactor 2 at Point Beach was shutdown when a cooling water pump failed. — Mlwk *Journal Sentinel*, 8/25/97

February 18, 1997

Reactor 1 at Point Beach was shut down when a cooling water pump defect required the pump's replacement.

December 1996

Point Beach owner WEPCO was fined $325,000 for 16 safety violations and a 1996 explosion inside a loaded high-level waste cask. The NRC said the company was "inattentive to their duties," had "starting up a power unit while one of its safety systems was inoperable," and had failed to install "the required number of cooling pumps."

— Mlwk *Journal Sentinel*, 8/12/97 and 12/5/96

September 21, 1996

The Kewaunee reactor was shutdown when inspectors found the number of corroded steam tubes to be "more than expected." — Mlwk *Journal Sentinel*, 2/26/97

May 28, 1996

At Point Beach, a potentially catastrophic explosion of hydrogen gas, powerful enough to "blow a 3-ton lid three inches into the air," pushed aside the 6,390-pound cask cover while it was atop a storage cask filled with high-level waste. The lid was being robotically welded to the cask when a welding spark ignited the gas, in what the owners, Wisconsin Electric Power, called a "gaseous ignition event."

— Mlwk *Journal Sentinel*, 6/8/95 & 5/7/98

March 30, 1995

A Point Beach reactor was shut down due to instrument failure in the emergency generator system used to circulate cooling water when regular power is cut off during emergencies.

— *Wisconsin State Journal*, 3/30/95

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