

From: Paul Krohn
To: Michael Kunowski
Date: 8/6/02 2:24PM
Subject: Point Beach Briefing Package

> Reg. III

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Mike,

Attached. I think this was Roger's final version. Also, there was a one line diagram of the AFW/IA system and a site layout diagram (for the purposes of showing the Senator the Security Fence for the PA).

Please call with any questions. Has the briefing happened or is it scheduled sometime in the future?

Paul

information in this record was deleted
in accordance with the Freedom of Information
Act, exemptions 4 and 5
FOIA- 2003-0094

~~11/15/02~~

Withhold portions - Ex. 4 & 5 I/2

Point Beach Nuclear Plant Briefing Paper

Background

- The Point Beach site, located on the western shore of Lake Michigan just north of Two Rivers, WI has two nuclear reactors and is owned by the Wisconsin Electric Power Company of Milwaukee, WI.
- Unit 1 began commercial operation in December 1970 with the operating license currently set to expire in October 2010. Unit 2 began commercial operation in September 1972 with the operating license currently set to expire in March 2013.
- Point Beach is operated by the Nuclear Management Company (NMC), a nuclear operating company formed by 4 upper Midwest utilities in February 1999. Additionally, the two reactors at Point Beach are operated as part of a '3-Unit Site' concept. The 3rd reactor is located just to the north of Point Beach at the Kewaunee Nuclear Plant. Both nuclear plants share a common, NMC senior management structure. Combined, Point Beach and Kewaunee employ approximately 1192 people.
- Point Beach stores a portion of the spent nuclear fuel from the previous 30 years of operations in 14 dry storage casks located in specially designed, protected area on the site property. The NRC has licensed Point Beach for up to 48 dry storage casks.

Auxiliary Feedwater (AFW) System and Red Finding

- The AFW system is a backup system that provides a means of adding water to the steam generators when the normal feedwater system is not available.
- There are 4 AFW pumps at Point Beach. Each Unit is capable of being supplied by 3 of the 4 pumps.
- The Point Beach instrument air (IA) system provides compressed air to support operation of various control systems and valves required for plant operations. The AFW pump recirculation valves are operated by the IA system and fail closed when IA is lost. With IA available, the recirculation valves are designed to automatically open when the discharge valves to the steam generators are throttled closed or shut. The recirculation valves ensure that the AFW pumps have a certain minimum flow to provide cooling and prevent pump damage.
- The Red Finding involved the hypothetical, simultaneous failure of all 4 of the AFW pumps. The failure of the AFW pumps was possible under certain scenarios which combined the loss of the IA system and the failure of the nuclear plant operators to recognize that the AFW pump recirculation valves had failed closed. The result would be a failure of the AFW pumps within a 1 to 2 minute time frame due to insufficient cooling.

NRC Response to AFW Red Issue

- Special Inspection Team dispatched to Point Beach in early December 2001 following utility report of issue on November 29, 2001. Special Inspection activities continued through February 2002.
- Preliminary NRC report issued April 3, 2002. Regulatory conference held with utility on April 29, 2002.

Withheld in part - EX 5

- Final NRC report issued July 12, 2002 with one violation of regulatory requirements involving inadequate procedures and failure to promptly identify the consequences of the recirculation valves failing closed on loss of IA. The utility has 30 days to contest the violation.
- Additional NRC inspection activities are planned to follow-up on the utility's response to the AFW issue.

AFW System Red Finding Context

- The steam generators, which are feed by the AFW system, provide one of three methods of removing heat from a shutdown reactor. The other two methods (use of the residual heat removal and primary containment heat removal systems) were not affected by this issue.
- No actual event occurred at Point Beach. The Red finding involved the potential for an event to happen given the specific system configuration and possible operator response to certain scenarios.
- The AFW Red Finding issue was identified by the utility during a voluntary initiative to update the Point Beach risk model for internal events. The utility took prompt corrective actions and has subsequently modified the system to eliminate the possibility of the failure from occurring. (See system diagram)
- Using risk models, the NRC concluded that the probability of damaging the reactor core as a result of the AFW issue was approximately one in every 10,000 years of reactor operation, the threshold for a Red Finding. The utility has agreed with this risk characterization.
- Programmatically, the NRC perform's additional utility inspections above those normally scheduled when issues arise that could result in the probability of a reactor core damaging event occurring once in every 1,000,000 years of reactor operation, the threshold for a White finding.
- During an April 29, 2002, meeting, the utility proposed that the finding be treated as an old design issue. The NRC has not reached a conclusion on this proposal and is currently assessing its merits. If the issue is determined to meet all of the requirements to be treated as an old design issue, the NRC will not use the finding in consideration of Point Beach's overall performance in the Action Matrix. This means that the issue will be posted on the NRC's Web site as a Red Finding for a period of 4 quarters. However, Point Beach will not be placed in the Multiple/Repetitive Degraded Cornerstone Column of the Action Matrix nor will the specified actions associated with this column be taken as would normally occur for a Red Finding. However, if treatment as an old design issue is not determined to be appropriate, then Point Beach will be placed in the Multiple/Repetitive Degraded Cornerstone Column of the Action Matrix, and the NRC will take the appropriate actions in accordance with established guidance.

exemption 5

EX 5

AFW System - Major Flow Paths

