PALISADES COULD REACH ITS PTS SCREENING LIMIT EARLIER THAN EXPECTED

Consumers Power’s Palisades may reach its PTS screening limit, a key indicator of reactor vessel brittleness, next year—eight years earlier than NRC staff reported to the commission as recently as late October—according to testimony at a December 8 commission meeting.

Consumers Power advised NRC on November 18 that new information on reactor vessel integrity showed that the critical PTS limit likely will be reached by 1999, five years earlier than an NRC staff analysis in late October showed. Jack Strosnider of the Office of Nuclear Reactor Regulation’s (NRR) Division of Engineering told Commissioners Kenneth Rogers and Gail de Planque that information developed even more recently by testing of material from the plant’s decommissioned steam generators may have pushed up the date—perhaps to as early as next year. NRC staff said they hope to produce a new evaluation of Palisades data by the end of January.

According to NRC regulations, a plant that has reached its PTS (pressurized thermal shock) screening limits may not operate unless the licensee presents additional information to justify the safety of the decision.

A Consumers Power executive who observed the meeting expressed disappointment that the new information showed the Palisades reactor vessel might reach the limits earlier than previously thought. The purpose of the testing was to justify operation to the end of the plant’s original operating license in 2007.

The inability of Yankee Atomic Electric Co. to provide sufficient information about the integrity of Yankee’s reactor vessel, together with economic issues, prompted the Yankee to shut that unit permanently in 1992.

As recently as October 28, when NRC staff issued Secy 94-267, “Status of Reactor Pressure Vessel Issues,” the agency projected that Palisades would reach its PTS screening criteria in 2004. On November 18, Consumers Power submitted a revised evaluation of the PTS issue that indicated the vessel would reach the critical level in 1999.

Analysis of the critical beltdline welds, along the axis of the reactor vessel, depends a lot on exactly what proportion of copper is present in the weld wires used to join the metal plates. Analysis of the metallurgy of the welds continues apace at Palisades, a nuclear engineer for the company told Inside N.R.C.

In a separate development at the meeting, NRC staff told the commissioners that they would, if necessary, compel ABB Combustion Engineering to divulge data on reactor vessel weld integrity that the vendor seeks to keep confidential.

The clash over the data from the Combustion Engineering Reactor Vessel Owners Group—data owned by ABB C-E—attracted attention from Commissioner Rogers, who told staff, including Office of Nuclear Reactor Regulation (NRR) chief William Russell, that “I would like to be kept informed of the discussions with the industry group (led by ABB C-E).

“I think the commissioners would be interested (in updates on the matter),” Rogers continued. “What are the proprietary aspects here that they are concerned about? I would hope that we could get over that hurdle.”

Russell told Rogers that the basis for ABB C-E’s request that the data be kept confidential is that it contains information on how C-E reactor vessel welds were carried out—“using the methods of twenty to thirty years ago that are no longer used.” Russell said he was hopeful that the agency and the company would come to a voluntary agreement on the issue.

At the end of the meeting, Rogers repeated his call for the data to be made public. “I hope we’ll be successful, ultimately, in filling out that data set.”

NRC wants to include the data in a database called the Reactor Vessel Integrity Data Base, or RVID.

RVID summarizes the properties of reactor pressure vessel materials for all plants; it is based on docketed information and is scheduled for public availability in the first quarter of 1995.