

October 24, 2005

LICENSEE: R.E. Ginna Nuclear Power Plant, LLC

FACILITY: R.E. Ginna Nuclear Power Plant

SUBJECT: SUMMARY OF SEPTEMBER 15, 2005, MEETING WITH R.E. GINNA
NUCLEAR POWER PLANT, LLC, REGARDING EXTENDED POWER
UPRATE APPLICATION (TAC NO. MC7382)

On September 15, 2005, the Nuclear Regulatory Commission (NRC) staff met with representatives of R.E. Ginna Nuclear Power Plant, LLC (the licensee) and its contractor, Westinghouse Electric Company, in a Category 1 public meeting held at the Westinghouse offices at 12300 Twinbrook Parkway, Rockville, Maryland. The purpose of the meeting was to discuss information regarding the licensee's application dated July 7, 2005, for a 16.8 percent increase in the maximum steady-state thermal power level at the R.E. Ginna Nuclear Power Plant (Ginna). This level of power increase is generally referred to as an extended power uprate (EPU). A list of attendees is provided as Enclosure 1.

The agenda for this meeting consisted of discussion regarding the small-break loss-of-coolant accident (SBLOCA), long-term cooling, and anticipated transient without scram analyses supporting the EPU application. In particular, the discussion centered on issues presented in the NRC staff's request for additional information on August 24, 2005. The presentation handout slides are provided as Enclosure 2.

For the SBLOCA analyses, information was presented regarding the analyses and modeling that were conducted. Westinghouse stated that the scenarios assumed no upper plenum injection flow. In addition, auxiliary feedwater (AFW) flow was not modeled because it was not required for break sizes down to 1.5 inches and no core uncover occurred for about 1 hour. The NRC staff asked the licensee to state when AFW flow would occur, the assumed flow rate, and the plant response at the time of AFW actuation (i.e., decay heat, steam generator tube uncover). The staff also questioned whether the AFW flow requirements for an SBLOCA were more restrictive than for other postulated events. The NRC staff also requested that the licensee consider the best approach when performing an analysis of an injection line break. Lastly, the staff asked the licensee to describe the reactor coolant system (RCS) loop seals in terms of plant elevation and the top of the active core.

Regarding the effects of long-term cooling and boric acid participation, information was presented about the various break sizes and locations that were reviewed. For 2-loop pressurized-water reactors, analyses are performed include: (a) a subcriticality analysis using sump boron concentration, (b) a boric acid participation evaluation using the simplified method presented in a 1975 NRC letter, and (c) a decay heat removal analysis for required recirculation flows. Currently, Ginna has a 20-hour boric acid precipitation action time. For intermediate size breaks, the emergency operating procedure (EOP) require the plant to be depressurized to the upper plenum injection (UPI). Using the plant simulator, the licensee will run several events for various break sizes to validate the 6-hour UPI point and to assess the latest possible time to start a plant cooldown for depressuization and to determine if additional analyses will be

needed to evaluate break sizes where pressure could hold above the UPI point. These assessments may help maximize the margins to increase flexibility in the EOPs. The NRC staff also requested that the mixing volume versus time be evaluated when justifying the precipitation limit, in particular when the volume level gets to the top of the core. Overall, the licensee stated that it was reviewing a proposed approach to resolve the issues in this area. The approach would include: (a) an Appendix K decay heat analysis, (b) assessment of core voiding as a function of time, (c) computing boric acid concentration versus time and revising EOP actions, as necessary, and (d) addressing boric acid participation.

For non-LOCA transients and accidents, the NRC staff indicated that adequate information had not been included in the application to fully support whether, at EPU conditions, the existing design-basis calculations are bounding for each non-LOCA transient described in the licensee's updated final safety analysis report (UFSAR). The licensee committed to submit the following information in a future supplement to address this issue:

1. assumptions and other initial plant conditions used in each non-LOCA transient analysis;
2. methodology and modeling used for each calculation;
3. verification that the methodology been approved by the NRC for each application, and provide any differences from the code methodologies; and
4. detailed results of the calculations to determine margins between current and EPU conditions and to show that the current design-basis calculations bound the plant at EPU conditions

In particular, the NRC staff requested more details about (a) the steam generator modeling to determine levels during a feedwater line break, (b) verification of the P-7 and P-9 setpoints adjustment, (c) shutdown margins during steam line breaks in single and dual loop operation, and (d) the time to fill the pressurizer in the event of the inadvertent operation of the chemical and volume control system and operator actions to terminate the event.

During the meeting, the licensee also discussed the proposed power ascension and testing plans associated with the implementation of the EPU. The licensee presented information to the NRC staff that was later included in a supplement to the July 7, 2005, application dated September 30, 2005.

Lastly, the NRC staff raised concerns regarding the EPU effects on Ginna's compliance with 10 CFR 50.68, "Criticality accident requirements." The licensee committed to address this issue in a future supplement.

Members of the public were not in attendance. Public meeting feedback forms were not received.

Please direct any inquiries to Patrick Milano at 301-415-1457 or pdm@nrc.gov.

/RA/

Patrick Milano, Senior Project Manager, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-244

Enclosures: 1. List of Attendees
2. Licensee Handout

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R.E. GINNA NUCLEAR POWER PLANT

SEPTEMBER 15, 2005

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Leonard Ward	Sr. Reactor Engineer	NRR/DSSA/SRXB
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Dave Dominicis	Brett Kellerman	Steve Love
Dave Fink	Jeff Kobelak	Ed Monahan
Pat Vaughn	Josh Hartz	

Other Participants:

None