



Entergy Nuclear Operations, Inc.
Pilgrim Nuclear Power Station
600 Rocky Hill Road
Plymouth, MA 02360

Stephen J. Bethay
Director, Nuclear Safety Assurance

March 16, 2011

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

SUBJECT: Entergy Nuclear Operations, Inc.
Pilgrim Nuclear Power Station
Docket 50-293
License No. DPR-35

Pilgrim Nuclear Power Station License Renewal Application Annual Update
Supplemental Information (TAC MC9669)

REFERENCES: 1. Entergy Letter to U.S. NRC, License Renewal Application,
dated January 25, 2006

2. Entergy Letter No. 2.10.058, "Pilgrim Nuclear Power Station License
Renewal Application 2010 Annual Update (TAC MC9669)", dated
December 22, 2010

LETTER NUMBER: 2.11.021

Dear Sir or Madam:

By Reference 1, Entergy Nuclear Operations, Inc. (Entergy) submitted the License Renewal Application (LRA) for Pilgrim Nuclear Power Station (PNPS).

Pilgrim Nuclear Power Station submitted the 2010 License Renewal Application (LRA) Annual Update by Entergy Letter 2.10.058, dated December 22, 2010. The LRA update indicated changes in the current licensing basis since the last update in 2009.

Upon review of the 2010 LRA Annual Update, the staff had questions concerning the following issues:

- Circulating Water System Thermowells
- HVAC Humidifier Plastic Filter Housing

Information clarifying each of the above is presented in the Enclosure to this letter.

Entergy is required by 10 CFR 54.21(b) to report changes to the current licensing basis (CLB) that materially affect the content of the PNPS LRA, including the Safety Analysis Report (SAR) supplement. In accordance with this requirement, Entergy is providing the requested supplemental information to the annual update.

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NRK

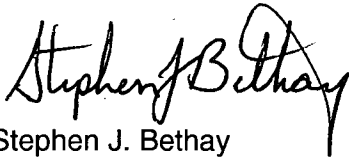
This letter contains no commitments.

If you have any questions or require additional information, please contact Mr. Joseph R. Lynch, Licensing Manager, at (508) 830-8403.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on the 16th of March, 2011.

Sincerely,

A handwritten signature in black ink, appearing to read "Stephen J. Bethay". The signature is stylized with a large, looped "S" and "B".

Stephen J. Bethay

MJG/mg

Enclosure: PNPS License Renewal Changes
(3 pages)

cc:

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NRC Resident Inspector
Pilgrim Nuclear Power Station

Enclosure

PNPS License Renewal Annual Update
Draft Requests for Additional Information (RAI) Responses
(3 pages)

DRAFT RAI 3.3.2-14-1-1

Background

By letter dated December 22, 2010, the applicant updated LRA Table 3.3.2-14-1 to add copper alloy with greater than 15 percent zinc thermowells exposed externally to condensation which is being managed for loss of material by the System Walkdown Program.

LRA Table 3.0-1 states that “[f]or exterior surfaces, condensation is considered untreated water due to potential for surface contamination.” The GALL Report recommends that copper alloy with greater than 15 percent zinc components that are exposed to treated, raw, or closed cycle cooling water be managed for loss of material due to selective leaching using GALL AMP XI.M33, “Selective Leaching of Materials.”

Issue

There are no items in LRA Table 3.3.2-14-1 to manage loss of material due to selective leaching for copper alloy with greater than 15 percent zinc thermowells exposed externally to condensation.

Request

Clarify how copper alloy with greater than 15 percent zinc thermowells exposed externally to condensation are being managed for loss of material due to selective leaching.

Response

Table 3.3.2-14-1 is incorrect. The copper alloy components added to Table 3.3.2-14 are actually bronze thermowells. Bronze is a copper alloy containing tin, but no zinc. There is no operating experience documented in the GALL Report or at PNPS that indicates loss of material from bronze due to selective leaching is an aging effect requiring management; therefore no aging management program (AMP) is necessary to manage loss of material due to selective leaching.

For the thermowell lines added to LRA Table 3.3.2-14-1 in the December 22, 2010 letter, the entries in the Material column are revised to read “Copper alloy <15% Zn.”

DRAFT RAI 3.3.2-14-15-1

Background

By letter dated December 22, 2010, the applicant updated LRA Table 3.3.2-14-15 to add plastic filter housings exposed externally to indoor air and internally to treated water. The applicant stated that this material and environment combination has no aging effects requiring management and no aging management program is required.

Issue

Some types of plastic can experience aging effects when exposed to air or water. It is unclear to the staff whether the filter housings can experience aging effects because the applicant did not state what type of plastic was used to construct the filter housings.

Request

Clarify what type of plastic was used to construct the filter housings exposed to indoor air and treated water.

Response

PNPS added a non-Q humidifier to the control room ventilation system. The treated water system feeding the humidifier is equipped with a filter to remove sediment from the water before the water reaches the humidifier. The filter housing (sump and cap) is made of polypropylene which is compatible with the internal and external environment. Therefore, no AMP is required.