

Pilgrim Nuclear Power Station Rocky Hill Road Plymouth, Massachusetts 02360

E. T. Boulette, PhD Senior Vice President - Nuclear

November 17, 1995 BECo Ltr. #95-119

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

Docket No. 50-293 License No. DPR-35

Generic Letter 92-01, Rev. 1, Supp. 1 "Reactor Vessel Structural Integrity", <u>180 Day Response</u>

Enclosed is Pilgrim Nuclear Power Station's (PNPS) 180 day response to the NRC request for information contained in Generic Letter 92-01, Revision 1, Supplement 1, "Reactor Vessel Structural Integrity", dated May 19, 1995.

We endorse the Boiling Water Reactor Vessel & Internals Project (BWRVIP) Action Plan for RPV Integrity Data as described in their response letter to the NRC, dated August 10, 1995.

We also endorse the November 15, 1995 BWRVIP response to requests 2 through 4 of the Generic Letter. This BWRVIP letter indicates, based on currently known data, that no near term actions by Pilgrim are needed in response to BWR USE or P/T curve issues raised in GL 92-01, Rev. 1, Supp. 1.

E. T. Boulette, PhD

ETB/GGW/Rap95/RESP9201

Enclosure: PNPS 180 Day Response to GL 92-01, Rev. 1, Supp.1

- 1999

DATE

Commonwealth of Massachusetts) County of Plymouth)

Then personally appeared before me, E. T. Boulette, who being duly sworn, did state that he is Senior Vice President - Nuclear of Boston Edison Company and that he is duly authorized to execute and file the submittal contained herein in the name and on behalf of Boston Edison Company and that the statements in said submittal are true to the best of his knowledge and belief.

My commission expires:

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My Commission Expires March 4, 1999

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cc: Mr. R. Eaton, Project Manager Division of Reactor Projects - I/II Mail Stop: 14D1 U. S. Nuclear Regulatory Commission 1 White Flint North 11555 Rockville Pike Rockville, MD 20852

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Senior Resident Inspector Pilgrim Nuclear Power Station

Pilgrim Nuclear Power Station (PNPS) 180 Day Response to Generic Letter 92-01, Revision 1, Supplement 1

Addressees of the generic letter are required to provide the following information within 6 months of the publication date of the generic letter:

- (2) Provide an assessment of any change in best estimate chemistry based on consideration of all relevant data.
- (3) Provide a determination of the need for use of the ratio procedure in accordance with the established Position 2.1 of Regulatory Guide 1.99, Revision 2, for those licensees that use surveillance data to provide a basis for the RPV integrity evaluation.
- (4) Provide a written report providing any newly acquired data as specified above and (1) the results of any necessary revisions to the evaluation of RPV integrity in accordance with the requirements of 10 CFR 50.60, 10 CFR 50.61, Appendices G and H to 10 CFR Part 50, and any potential impact on the LTOP or P-T limits in the technical specifications or (2) a certification that previously submitted evaluations remain valid. Revised evaluations and certifications should include consideration of Position 2.1 of Regulatory Guide 1.99, Revision 2, as applicable, and any new data.

In our 90 day response to GL 92-01, Rev.1, Supp. 1, dated 8/17/95, we provided a preliminary response to Questions 2, 3, and 4 of the Generic Letter. In this response, we stated that the Boiling Water Reactor Vessel & Internals Project (BWRVIP) Action Plan for RPV Integrity Data will take 24 months to gather all remaining known data that is relevant for Pilgrim. The data search, supporting the BWRVIP action plan, is expected to provide confirmation of the conservative upper bound assumption.

We also stated we did not have any weld deposit data on the limiting weld (1-338 A, B, C, Filler Heat 27204/12008 (Tandem Arc), Wire Type B-4 (Mod), Flux Lot 3774). Therefore, in our calculations, we used the upper bound Chemistry Factor of 272 (corresponding to 0.35 Cu and 1.0 Ni) to account for this lack of weld deposit data.

Since our preliminary response, we have reviewed weld deposit data for similar welds in domestic and foreign RPVs. At this time, the Mihama Unit 1 surveillance weld (Filler Heat 27204/12008 (Tandem Arc), Wire Type B-4 (Mod), Flux type Linde 1092) is the only actual surveillance data found that is similar to the Pilgrim vessel. The Mihama Unit 1 weld deposit Copper content is 0.19% and the Nickel content is 0.97%. This information shows the Pilgrim RPV analysis is conservative since 0.35% Cu and 1.0% Ni were used in our calculations.

In addition to being involved in the BWRVIP effort, Pilgrim is part of the Combustion Engineering Owners Group (CEOG), from which we have obtained the majority of the data relative to our vessel. We do not expect our calculations to change significantly due to our conservative use of the upper bound chemistry factors allowed by Regulatory Guide 1.99, Rev. 2.

In response to the specific NRC requests we provide the following:

Response to Question 2 :

The November 15, 1995 BWRVIP response to requests 2 through 4 above, indicates that all relevant data cannot be retrieved and evaluated by the November 20, 1995 due date. A longer term effort is being conducted through the Nuclear Energy Institute (NEI). The BWRVIP provided their methodology for addressing the impact of known weld chemistry

on Upper Shelf Energy (USE) evaluations and Pressure/Temperature (P/T) curve calculations for BWR/ 2-6 plants. The BWRVIP letter states that, based on current bounding weld chemistries, there is no impact on present BWR USE evaluations. Also, the BWRVIP concluded that P/T curves need not be revised until the industry completes their efforts to establish best estimate chemistries.

Response to Question 3 :

To date, Pilgrim has retrieved only one surveillance capsule. Therefore, we cannot use the ratio procedure described in Position 2.1 of RG 1.99.

Response to Question 4 :

As stated above and in the BWRVIP response, no revisions to the Pilgrim USE evaluations or P/T curve calculations are necessary at this time. Also, the use of the Position 2.1 ratio procedure by Pilgrim is not appropriate at this time

To summarize, Pilgrim's USE evaluations and P/T curve calculations, based on our use of the RG 1.99, Rev. 2 allowed values for copper and nickel, are conservative and the issues raised by GL 92-01, Rev. 1, Supp. 1, do not apply to our reactor vessel.