VERMONT YANKEE NUCLEAR POWER CORPORATION

SEVENTY SEVEN GROVE STREET

RUTLAND, VERMONT 05701

REPLY TO:
ENGINEERING OFFICE
1671 WORCESTER ROAD
FRAMINGHAM, MASSACHUSETTS 01701
TELEPHONE (617) 872-8100

2.C.2.1
FVY 81-102

July 1, 1981

United States Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Office of Nuclear Reactor Regulation
Darrell G. Eisenhut, Director
Division of Licensing

References: (a) License No. DPR-28 (Docket No. 50-271)
(b) USNRC Letter, dated February 26, 1981; Implementation of NUREG-0313, Rev. 1 (Generic Letter 81-04)

Dear Sir:

Subject: Implementation of NUREG-0313, Rev. 1, "Technical Report on Material Selection and Processing Guidelines for BWR Coolant Pressure Boundary Piping"

NUREG-0313, Rev. 1, sets forth the NRC staff's revised acceptable methods for reducing the intergranular stress corrosion cracking susceptibility in BWR, ASME Code Class 1, 2 and 3 pressure boundary piping and safe ends. Where the material, testing or processing guidelines of the NUREG cannot be met, varying degrees of augmented inservice inspection and leak detection requirements are presented. We have completed our review of the NUREG guidelines and submit the following information in response to Reference (b).

Using the NUREG's definition of conforming/nonconforming, the affected piping systems at Vermont Yankee are categorized as follows:

I. Nonconforming

1. Core Spray from the first valve to the dissimilar weld outside the penetrations on both the A & B train
2. Standby Liquid Control (SLC-11)
3. Head Spray (RHR-19)
4. 20" RHR line A to V10-18 (RHR-32)
5. 24" RHR line B to V10-46B (RHR-31)
6. 24" RHR line C to V10-46A (RHR-30)
7. The entire recirculation system except the by-pass lines
8. Recirculation Inlet safe-ends N2A through K
9. Reactor vessel drain line (CUW 19,400)

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II. Conforming

1. Core Spray A & B lines from safe-end to first valve
2. Recirculation By-pass lines in both loops
3. CRD return line/nozzle cap
4. RWCU suction line
5. Nozzle safe-ends N1 A/B, N6 A/B, N7, N8, N9, N10.

Items one through four of the conforming piping systems are conforming due to material replacement. All other lines were determined to be conforming.

The nozzle safe-ends were replaced prior to commercial operation because they were furnace sensitized during treatment of the reactor vessel. The replacement procedures and the material specifications meet the criteria of the NUREG with regard to chemistry, physical requirements, and heat input. However, the L, K or N grades of 304/316 were not specified. The material used does meet the chemical requirements of the L grade (.030C). The material was also solution annealed and a sensitization test was performed.The area of original material left on the nozzles had an overlay clad applied. This technique is similar to the current practice of applying corrosion resistant cladding when making modifications to 304 piping.

At the present time, Vermont Yankee does not plan to replace any of the lines containing nonconforming material. As an alternative, it is our intent to develop a program which will address the staff's augmented inservice inspection and leak detection requirements. It is anticipated that the details of our program and the associated proposed Technical Specification change will be available by October, 1981.

We trust that the information presented above is responsive to your request; however, should any additional information be required do not hesitate to call.

Very truly yours,

VERMONT YANKEE NUCLEAR POWER CORPORATION

L. D. Marsolais

L. D. Marsolais
Project Manager

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