SEP 16 1977

Docket No. 50-220

Niagara Mohawk Power Corporation
ATTN: Mr. Gerald K. Rhode
Vice President - Engineering
300 Erie Boulevard West
Syracuse, New York 13202

Gentlemen:

RE: NINE MILE POINT NUCLEAR STATION UNIT NO. 1

Boiling Water Reactor (BWR) operating history indicates that Type 304 and 316 austenitic stainless steel piping in the reactor coolant system (RCS) pressure boundary are susceptible to stress corrosion cracking. This is particularly true for "service sensitive" lines; i.e., those that are subject to high stress or that contain relatively stagnant intermittent, or low flow fluids. Although stress corrosion cracking is unlikely to cause a rapidly propagating pipe failure, the presence of such cracks constitutes a degradation of the RCS boundary, and thus is undesirable from a safety standpoint. Therefore, it is the NRC staff's position that steps should be taken to minimize stress corrosion cracking in BWR piping systems to eliminate this condition and to improve overall plant reliability. The details of the staff's position are contained in the enclosed NUREG-0313, "Technical Report on the Material Selection and Processing Guidelines for BWR Coolant Pressure Boundary Piping", dated July, 1977.

We request that you review all of the RCS pressure boundary piping and fitting material, including weld metal, at your facility to determine if it meets the material selection and processing guidelines set forth in the enclosed report. You should identify to us any materials that do not meet these guidelines and proprose appropriate changes to your Technical Specifications to incorporate the augmented inservice inspection requirements specified in Section III of the enclosed report. In the case of "service sensitive" lines you should also provide your plans and schedule for the replacement, to the extent practicable, of non-conforming materials with those that conform to the staff's guidelines.

In addition, if you find that you have any pressure boundary piping that does not conform to the staff's guidelines, we request that you propose changes to the RCS leakage limits and surveillance requirements contained in your Technical Specifications, to bring them into conformance with the enclosed model Technical Specifications.

OFFICE➤						
SURNAME➤						
DATE➤						

[illegible]

You should complete all of the above actions within 90 days. If you have any questions, please contact us.

Sincerely,

Original signed by

George Lear, Chief
Operating Reactors Branch #3
Division of Operating Reactors

Enclosures:
1. "Technical Report on Material Selection and Processing Guidelines for BWR Coolant Pressure Boundary Piping"
2. Model Technical Specifications

cc w/enclosures:
See next page

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cc: Eugene B. Thomas, Jr., Esquire
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REACTOR COOLANT SYSTEM

OPERATIONAL LEAKAGE

LIMITING CONDITION FOR OPERATION

3.4.X Reactor coolant system leakage shall be limited to:

a. No PRESSURE BOUNDARY LEAKAGE.

b. 5 GPM UNIDENTIFIED LEAKAGE.

c. 2 GPM increase in UNIDENTIFIED LEAKAGE within any 4 hour period.

d. 20 GPM IDENTIFIED LEAKAGE.

APPLICABILITY: Average Coolant Temperature > 212°F.

ACTION:

a. With any PRESSURE BOUNDARY LEAKAGE, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.

b. With any reactor coolant system leakage greater than any one of the limits specified in b or d above, reduce the leakage rate to within the limits within 4 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

c. With any increase in UNIDENTIFIED LEAKAGE of $\geq$ 2 GPM within a 4 hour period, identify the source of leakage within 4 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

4.4.X The reactor coolant system leakage shall be demonstrated to be within each of the above limits by:

a. Monitoring the primary containment sump level and flow rates at least once per 12 hours.

b. Monitoring the primary containment atmospheric particulate radioactivity at least once per 12 hours.

c. (Specify appropriate surveillance tests depending upon the type of leakage detection system utilized).

MODEL TECHNICAL SPECIFICATIONS

DEFINITIONS

IDENTIFIED LEAKAGE

1.XX IDENTIFIED LEAKAGE shall be:

a. Leakage into collection systems, such as pump seal or valve packing leaks, that is captured and conducted to a sump or collecting tank, or

b. Leakage into the containment atmosphere from sources that is both specifically located and known either not to interfere with the operation of the leakage detection systems or not to be PRESSURE BOUNDARY LEAKAGE.

PRESSURE BOUNDARY LEAKAGE

1.XX PRESSURE BOUNDARY LEAKAGE shall be leakage through a non-isolable fault in a reactor coolant system component body, pipe wall or vessel wall.

UNIDENTIFIED LEAKAGE

1.XX UNIDENTIFIED LEAKAGE shall be all leakage which is not IDENTIFIED LEAKAGE.