UNITED STATES
ATOMIC ENERGY COMMISSION
DIVISION OF COMPLIANCE
REGION I
970 BROAD STREET
NEWARK, NEW JERSEY 07102

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JUN 22 1972

Niagara Mohawk Power Corporation
Attention: Mr. F. J. Schneider
Vice President - Operations
300 Erie Boulevard West
Syracuse, New York 13202

Docket No. 50-220

Gentlemen:

Information obtained during inspections conducted by the Directorate of Regulatory Operations, has disclosed that a number of facilities have been equipped with valves with wall thicknesses below the minimum requirements specified by the applicable codes, standards, and procurement specifications. In other instances, licensees have not been able to document whether or not their valves met minimum wall thickness requirements. Our survey of this subject has disclosed that the matter is not limited to any class of licensee or valve supplier.

In light of the above information, you are requested to verify, through manufacturing records or other suitable means, that valves important to nuclear safety installed or to be installed at your facility meet the minimum wall thickness requirements of the specified codes or standards. To the extent that verification records are currently available, you are requested to promptly accumulate those records at the plant site, and to advise this office within thirty (30) days of the date of this letter of what records are available and when our inspector may examine them at the plant site.

In the event that records are not currently available, you are requested to advise this office within thirty (30) days, of your plans and schedules for demonstrating by suitable alternate means, that valves important to nuclear safety installed or to be installed at your facility are acceptable with respect to wall thickness. Records of conformance shall be maintained current with inspections performed.

The valves which require demonstration of acceptable wall thickness are the following:

Each valve within the reactor coolant pressure boundary, as defined in subsection 50.55(e) (Codes and Standards) of 10 CFR 50, where the valve is:

(a) over 1-inch nominal pipe size for pressurized water reactors;

(b) over 1-1/4-inch nominal pipe size in water lines for boiling water reactors;

(c) over 2-1/2-inch nominal pipe size in steam lines for boiling water reactors.

The following techniques are considered to be a sufficient demonstration of acceptable wall thickness. Alternate techniques may be offered, but there is no assurance that they will be found acceptable.

(1) Documented direct physical measurement of actual wall thickness, with comparison to specified minimum wall thickness.

(2) Documented results of ultrasonic measurement of wall thickness, with comparison to specified minimum wall thickness, and documentation that the ultrasonic measurement technique is demonstrated to have a maximum error in repeatability and accuracy, of not more that 2% of the wall thickness.

(3) Wall thicknesses, verified by either of the above techniques, to be not less than 90% of specified minimum wall thickness will be acceptable, provided that the documented mechanical characteristics of the material exceed the specification minimum by an amount sufficient to compensate for the measured reduction in wall thickness.

(4) "Specified Minimum Wall Thickness" as used above, means the wall thickness required by the relevant codes and standards (e.g., ASA B31.1 (1955); USAS B31.1.0 (1967); USAS B16.5; MSS-SP-66) in effect on the date of the purchase order.

(5) Certain of your valves may have, for procurement convenience, been ordered to ratings higher than actually required by service conditions. In such instances, you may, if you wish, provide for our review, an engineering justification for accepting valves which do not conform to procurement specifications, but do, in your opinion, satisfy service requirements. Such justification should be promptly transmitted to this office, in ten (10) copies.

(6) In certain instances, you may wish to repair valves found to have wall thickness below the specified minimum. In such instances you are requested to provide to this office for our review, the proposed repair procedure, including a description of techniques to be used to verify the acceptability of the repaired components. Such a proposed procedure should also be submitted in ten (10) copies.

Acceptable documentation of conformance with the above requirements must be completed within three (3) years of the date of this letter.

Very truly yours,

James P. O'Reilly

James P. O'Reilly
Director

cc: Mr. P. A. Bore, Station Manager

bcc: RO Files
DR Central Files
PDR
LPDR as applicable
OGC as applicable
NYS as applicable