



UNITED STATES
ATOMIC ENERGY COMMISSION
DIRECTORATE OF REGULATORY OPERATIONS
REGION I
970 BROAD STREET
NEWARK, NEW JERSEY 07102

APR 30 1973

D. F. Knuth, Deputy Director for Field Operations
Directorate of Regulatory Operations, HQ

MILLSTONE POINT COMPANY
MILLSTONE POINT 1 - DOCKET NO. 50-245
FEEDWATER SPARGER FAILURES

This memorandum is forwarded for action. Region I inspection at the Millstone Point 1 reactor of three failed feedwater spargers have identified cracking at locations similar to those previously identified in the sparger failures found during the chloride intrusion incident investigation.* The cause of the previous failures was credited to flow induced vibration. The current failure cause has not been identified at this time; however, the licensee's investigation is still in progress.

The Directorate of Licensing was involved in evaluation of the licensee's Chloride Intrusion Incident Report which contained in Appendix D of that report an "Analysis of Redesigned Feedwater Sparger Configuration". The new redesigned spargers failed within six weeks of reactor operation.

It is recommended that DL be requested:

1. To notify Millstone Point Company that the reactor not be operated until the cause of failure of the redesigned spargers is identified and reviewed by DL.
2. That the future surveillance inspection frequency of the reactor internals, including the feedwater spargers, be revised and reduced from the currently scheduled "five months (+ 1 month) after the startup from the first outage"** to six weeks (+ two weeks) after the forthcoming startup.

*Daily Reports, Region I, 4/27 & 30/73.

**Reference paragraph V.3.0, Special Report, Millstone Nuclear Power Station, Unit 1, Appendix H, Chloride Intrusion Incident.

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3. That DL review and evaluate, prior to startup of the reactor, the licensee's corrective measures and feedwater sparger fix. The licensee should be required to submit a report in this regard.

Discussion with the licensee by telephone on April 30, 1973 indicated their uncertainty as to scheduling and reactor startup. Currently included in the licensee's possible considerations are:

1. Replace the existing failed spargers with ones of similar design, or
2. Develop a new design and fabricate new spargers. The licensee stated that two spargers would be instrumented, reinstalled and flow-vibration tests conducted before resumption of plant operation in an attempt to find the cause of the sparger failures. Failed spargers are also being shipped to the GE laboratory at Vallecitos for metallograph examination.

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Director

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