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50-289

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LTR 1 ENCL 1

STEAM GENERATOR ISI TECH SPECS COMMENTS ON REVIEW OF PROPOSED CHANGES.

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METROPOLITAN EDISON COMPANY

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TELEPHONE 215 - 929-3601

July 14, 1978
GQL 1206

Director of Nuclear Reactor Regulations
Attn: R. W. Reid, Chief
Operating Reactors Branch No. 4
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Sir:

Three Mile Island Nuclear Station Unit 1 (TMI-1)
Operating License No. DPR-50
Docket No. 50-289
Steam Generator ISI Technical Specifications

Metropolitan Edison Company has reviewed the Proposed Changes to Technical Specifications forwarded in your letter of June 27, 1978 and finds the proposed changes acceptable except as indicated on the pages attached hereto.

The first change includes a specification (4.19.2.a.4) to exclude certain unique tubes from the first random sample, provided all such tubes in both steam generators are inspected, and to discount these tubes in meeting minimum sample size requirements. Justification for this change is as follows:

This change permits the exclusion of tubes in unique, limited, well-defined areas of the steam generators from constituting part of the first sample selection provided a 100% inspection of all of the tubes in these unique, limited, well-defined areas in both steam generators is completed, and defective tubes are removed from service. Operational experience has shown that tube defects can be the result of unique operating conditions or physical arrangements in certain areas of the steam generators. A full inspection of all of the tubes in such limited areas will provide complete assurance that degraded or defective tubes in these areas are detected. Because no credit is taken for these distinctive tubes in the constitution of the first sample or its results, the requirements for the first sample are unchanged. This requirement is essentially equivalent to and meets the intent of the requirements set forth in NRC Regulatory Guide 1.83, Supplement 1 and does not reduce the margin of safety provided by those requirements.

The second change (Table 4.19.2) is deletion of the statement, "... and request NRC approval of remedial action.", appearing under the "Action Required" for a C-3 result for the "2ND SAMPLE INSPECTION" following a C-3 result for the "1ST SAMPLE INSPECTION". NRC has indicated that the approved remedial action is "Inspect all tubes in each S.G.", and therefore, inclusion of the above requested

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R. W. Reid, Chief

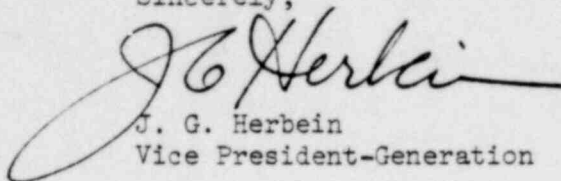
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statement is not necessary.

It is requested that the above changes be incorporated in the Proposed Changes to Technical Specifications prior to their issuance to Met-Ed as an Amendment to the TMI-1 Technical Specifications.

Sincerely,



J. G. Herbein
Vice President-Generation

JGH:RJS:cjg

Attachments

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each inservice inspection shall include at least 3% of the total number of tubes in all steam generators; the tubes selected for these inspections shall be selected on a random basis except:

- a. The first sample of tubes selected for each inservice inspection (subsequent to the preservice inspection) of each steam generator shall include:
 1. All nonplugged tubes that previously had detectable wall penetrations (>20%).
 2. At least 50% of the tubes inspected shall be in those areas where experience has indicated potential problems.
 3. A tube inspection (pursuant to Specification 4.19.4.a.8) shall be performed on each selected tube. If any selected tube does not permit the passage of the eddy current probe for a tube inspection, this shall be recorded and an adjacent tube shall be selected and subjected to a tube inspection.
 4. Tubes in specific limited areas which are distinguished by unique operating conditions and/or physical construction (for example, tubes adjacent to the open inspection lane or tubes whose 15th tube support plate hole is not broached but drilled) may be excluded from the first random sample if all such tubes in both steam generators are inspected. No credit will be taken for these tubes in meeting minimum sample size requirements.
- b. The tubes selected as the second and third samples (if required by Table 4.19.2) during each inservice inspection may be subjected to a partial tube inspection provided:
 1. The tubes selected for these second and third samples include the tubes from those areas of the tube sheet array where tubes with imperfections were previously found.
 2. The inspection includes those portions of the tubes where imperfections were previously found.

The results of each sample inspection shall be classified into one of the following three categories:

<u>Category</u>	<u>Inspection Results</u>
C-1	Less than 5% of the total tubes inspected in a steam generator are degraded tubes and none of the inspected tubes are defective.
C-2	One or more tubes, but not more than 1% of the total tubes inspected in a steam generator are defective, or between 5% and 10% of the total tubes inspected are degraded tubes.

C-3

More than 10% of the total tubes inspected in a steam generator are degraded tubes or more than 1% of the inspected tubes are defective.

Note: In all inspections, previously degraded tubes must exhibit significant (>10%) further wall penetrations to be included in the above percentage calculations.

4.19.3 Inspection Frequencies

The required inservice inspections of steam generator tubes shall be performed at the following frequencies:

- a. The first (baseline) inspection was performed after 6 effective full power months but within 24 calendar months of initial criticality. The subsequent inservice inspections shall be performed not more than 24 calendar months after the previous inspection. If the results of two consecutive inspections encompassing not less than 18 calendar months all fall into the C-1 category or demonstrate that previously observed degradation has not continued and no additional degradation has occurred, the inspection interval may be extended to a maximum of once per 40 months.
- b. If the results of the inservice inspection of a steam generator conducted in accordance with Table 4.19.2 at 40 month intervals fall into Category C-3, the inspection frequency shall be increased to at least once per 20 months. The increase in inspection frequency shall apply until the subsequent inspections satisfy the criteria of Specification 4.19.3.a; the interval may then be extended to a maximum of once per 40 months.
- c. Additional, unscheduled inservice inspections shall be performed on each steam generator in accordance with the first sample inspection specified in Table 4.19.2 during the shutdown subsequent to any of the following conditions:
 1. Primary-to-secondary tubes leaks (not including leaks originating from Tube-to-tube sheet welds) in excess of the limits of Specification 3.1.6.3.
 2. A seismic occurrence greater than the Operating Basis Earthquake.
 3. A loss of coolant accident requiring actuation of the engineering safeguards, or
 4. A major main steam line or feedwater line break.

TABLE 4.19.2

STEAM GENERATOR TUBE INSPECTION

1ST SAMPLE INSPECTION			2ND SAMPLE INSPECTION		3RD SAMPLE INSPECTION	
Sample Size	Result	Action Required	Result	Action Required	Result	Action Required
A minimum of S Tubes per S. G.	C-1	None	N/A	N/A	N/A	N/A
	C-2	Plug defective tubes and inspect additional 25 tubes in this S. G.	C-1	None	N/A	N/A
			C-2	Plug defective tubes and inspect additional 45 tubes in this S. G.	C-1	None
					C-2	Plug defective tubes
			C-3	Perform action for C-3 result of first sample	N/A	N/A
	C-3	Inspect all tubes in this S. G., plug defective tubes and inspect 25 tubes in other S.G. Prompt notification to NRC pursuant to specification 6.9.2.	Other S.G. is C-1	None	N/A	N/A
			Other S.G. is C-2.	Perform action for C-2 result of second sample	N/A	N/A
			Other S.G. is C-3	Inspect all tubes in each S. G. and plug defective tubes. Prompt notification to NRC pursuant to specification 6.9.2.	N/A	N/A

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$S = 3 \frac{N}{n} \%$ Where N is the number of steam generators in the unit, and n is the number of steam generators inspected during an inspection