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ILLINOIS POWER COMPANY

CLINTON POWER STATION, P.O. BOX 678, CLINTON, ILLINOIS 61727

July 18, 1985

Docket No. 50-461

Director of Nuclear Reactor Regulations
Attn: Mr. W. R. Butler, Chief
Licensing Branch No. 2
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Clinton Power Station
Safety Related Instrument Tubing Program

Dear Mr. Butler:

Based upon the NRC's acceptance of a Seismic Category I program, in lieu of an ASME III program (including certification), for safety related instrument tubing at other nuclear power stations (River Bend, Nine Mile Point, Millstone 3, Beaver Valley 2, etc.), Illinois Power Company (IP) requests the NRC to review and approve the following outlined program. The proposed program will allow us to eliminate the N-5 data package requirements for instrument tubing resulting in economic and schedule benefits without impacting the safety of the plant. In addition, maintenance and administrative requirements for the plant over its 40 year life will be greatly enhanced as a result of the change from an ASME III to the Seismic Category I program. This submittal, which describes the Clinton Power Station (CPS) safety related instrument tubing program in detail, includes the following attachments:

ATTACHMENT A: Comparison of Proposed Safety-Related Instrument Tubing Program with ASME III Requirements

ATTACHMENT B: Proposed Examination and Testing Program

ATTACHMENT C: Comparison of Proposed Tubing Examination and Testing Program with ASME III Requirements

The proposed program applies to all Safety Class 2 and 3 instrument sensing line tubing from downstream of the ASME III socket weld on the root valve up to the local instrument panel. Please note that CPS uses piping for Safety Class 1 instrument sensing lines and piping for Safety Class 2 and 3 instrument sensing lines inside the Containment. This piping will remain under the ASME III program. Also, the proposed program applies to tubing that is one-half inch or less in diameter. All components of the instrument sensing lines (i.e., tubing, fittings, valves, gages, and supports), which are under the jurisdiction of the proposed program, are designed to Seismic Category I requirements and are designated Nuclear Safety Related. These components are designed

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and constructed in accordance with a QA Program that is in compliance with 10CFR50, Appendix B. Although these components are considered outside of ASME Section III jurisdiction, they are designed, fabricated, and installed utilizing ASME III as guidance. In summary, IP considers that changing the instrument tubing program from ASME III to Seismic Category I will not degrade the quality or impact the safety of the tubing installation. We remain available to meet with the Staff to resolve any questions which may arise and provide any information necessary to implement this request.

In order to begin realizing the economic and schedule benefits associated with this proposed program as soon as possible, IP requests NRC review of this submittal and concurrence to implement the program by July 31, 1985. The appropriate FSAR revisions resulting from this submittal will be made in a future FSAR amendment.

If you have any questions or concerns regarding the submittal, please feel free to contact our licensing staff directly.

Sincerely yours,

F. A. Spangenberg

F. A. Spangenberg
Director - Nuclear Licensing
and Configuration
Nuclear Station Engineering

CTG/lab

Attachments

cc: B. L.Siegel, NRC Clinton Licensing Project Manager
NRC Resident Office
Regional Administrator, Region III, USNRC
Illinois Department of Nuclear Safety

CLINTON POWER STATION

SAFETY CLASS 2 AND 3

INSTRUMENT TUBING REQUIREMENTS

	PRESENT PROGRAM (ASME III - 1974/S74)	PROPOSED PROGRAM (SAFETY CLASS 0)*
1. Organization	Required.	Same as present program.
2. Training	Required.	Same as present program.
3. Design Specifications	Pressure boundary Integrity for SSE and dead loads, thermal.	Same as present program.
4. Engineering, Design, and Document Control	10CFR50, Appendix B.	Same as present program.
5. Procurement Control	ASME-approved suppliers, CMTR and/or C or C.	Same, except no N-stamp required.
6. Receiving, Inspection, Identification, Storage, and Handling Control	Physical Inspection and review of documentation, ANSI storage and material identification.	Same as present program.
7. Fabrication and Installation Control	Control Drawing Package, BA/Q&TS and ANI review of weld data sheets and established hold-points, material traceability.	No mandatory holdpoints; no third party documentation review; no individual packages per drawing; normal Category I Inspection Report is required (Att. B and C).
8. Weld and Brazing Control	ASME III Procedures - Weld data package each weld; ASME IX welders.	Same as present program. (Att. B and C).
9. Bolted and Other Mechanical Joints	No special bolted joints. Document special connection torque on Inspection Report.	No special bolted joints; mechanical fittings installed to manufacturer's requirements, documented on Inspection Reports.
10. Heat Treatment and Special Operations and Repairs	Not Applicable.	Not applicable.

* Safety Class 0 is the CPS designation for Seismic Category I, Non-ASME components.

SAFETY CLASS 2 AND 3

INSTRUMENT TUBING REQUIREMENTS

	PRESENT PROGRAM (ASME III - 1974/S74)	PROPOSED PROGRAM (SAFETY CLASS 0)*
11. Fabrication and Installation Inspection	BA/Q&TS, ANI, ASME acceptance, material traceability required each piece to specific material, heat and lot number.	Same, except limited third party surveillance; Category I material marking or exclusive purchase of Category I material, (Att. B and C).
12. Nondestructive Testing	Radiographic testing, liquid penetrant or magnetic particle for Class 2. Visual examination for class 3.	Same as present program. (Att. B and C).
13. Nonconformances	Nonconformance Reports (NCR).	Same as present program.
14. Control of Measuring and Test Equipment	Required.	Same as present program.
15. Authorized Nuclear Inspector and Code Certification	N-stamp.	Not Applicable.
16. Construction Quality Assurance Audit Program	IP, ASME, ANI, BA.	BA, IP.
17. Company Quality Assurance and Control Manual	BA/Q&TS Program Manual IP ASME III Control Manual.	BA/QA Program Manual.
18. Final Documentation	As-built data package BA/Q&TS-ANI Certification.	Documented on Inspection Reports, BA/Q&TS acceptance.
19. Certificate Holder (Installation Subcontractor)	Required.	Same as present program but not required.
20. Pressure Testing	1.5 times design pressure for Hydrostatic, 1.25 times design pressure for Pneumatic BA/Q&TS-ANI to witness.	Same as present program, except limited third party surveillance. (Att. C).
21. IPs' Responsibilities When Owners' Designee	Prepare code data forms N5, N3, ANI Witness N-stamp.	Not Applicable.
22. IP Operations under the ASME Section XI	Governs repair of components.	Not Applicable.

* Safety Class 0 is the CPS designation for Seismic Category I, Non-ASME components.

CLINTON POWER STATION
PROPOSED EXAMINATION AND TESTING PROGRAM

° Safety Class 2 Socket and Butt Welds

1. Perform a 100% liquid penetrant (LP) inspection for socket welds and 100% radiographic testing (RT) for butt welds (document via NDE Report).

2. 100% visual inspection by the Piping Contractor prior to release to Quality Control (BA/Q&TS).

3. 100% BA/Q&TS visual inspection (document via IR).

4. 10% surveillance by ANI.

5. In-process surveillance inspections performed by BA/Q&TS (document via IR).

6. 100% pressure tested to 1.5 times the design pressure for hydrostatic and 1.25 times the design pressure for pneumatic, with 100% visual inspection of welds (document via Pressure Test Report).

° Safety Class 3 Socket and Butt Welds

1. 100% visual inspection by the Piping Contractor (document via construction checklist).

2. 100% BA/Q&TS visual inspection (document via IR).

3. BA/Q&TS in-process inspections (document via IR).

4. Pressure test to 1.5 times the design pressure for hydrostatic and 1.25 times the design pressure for pneumatic (document via Pressure Test Report).

5. 10% Surveillance by ANI.

° Seismic Category I Supports

1. 100% BA/Q&TS visual inspection of all field welds (document via IR).

° Visual Examination Acceptance Criteria for Pressure-Retaining Welds

1. All personnel performing nondestructive testing shall be qualified and certified in accordance with SNT-TC-1A.

2. All nondestructive testing shall meet the acceptance standards of Paragraph NC-5300 of the applicable ASME III Code Edition.

COMPARISON OF PROPOSED TUBING EXAMINATION AND TESTING WITH ASME III REQUIREMENTS

ASME PROGRAM CLASS 2/3	PROPOSED EXAM/TESTING PROGRAM
I. 100 percent visual inspection.	I. Same as present program.
*II. 100 percent LP or RT inspection.	*II. Same as present program.
III. Surveillance by ASME and ANI Approximately 10 percent in process activities.	III. Surveillance by a third party inspector approximately 10 percent inprocess activities activities - includes welding and weld hydros.
IV. Hydro - 100 percent inspection by BA/Q&TS and ANI at 1.5 times design. Pneumatic - 100 percent inspection by BA/Q&TS and ANI at 1.25 times design.	**IV. Hydro - 100 percent inspection by BA/Q&TS at 1.5 times design. Pneumatic - 100 percent inspection by BA/Q&TS at 1.25 times design.
V. Surveillance inspection performed by BA/Q&TS, i.e., Inprocess Welding, Weld Material Control, Material Control.	V. Same as present program.
VI. All inspection performed, with the exception of Item V, are documented in the weld data packages, i.e., Weld Data Sheets.	**VI. Same as present program.
VII. Welders and procedures to be qualified to ASME IX.	VII. Same as present program.

*NOTE: For Class 3, LP is not required by ASME III.

**NOTE: ANI surveillance of actual work and pressure test, but no review of documentation. Unsatisfactory conditions noted on ANI Inspection Reports will be addressed and resolved via existing Engineering and QA procedures.