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June 23, 1992

10 CFR Part 50
Section 50.63(c)(4)

U S Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

PRAIRIE ISLAND NUCLEAR GENERATING PLANT
Docket Nos. 50-282 License Nos. DPR-42
50-306 DPR-60

Reply to Questions on Design Report for the Station Blackout/Electrical
Safeguards Upgrade Project (TAC Nos. #68588 and #68589)

References: Letter from Thomas M Parker, Northern States Power Company, to U S
Nuclear Regulatory Commission dated December 23, 1991 titled:
"Design Report for the Station Blackout/Electrical Safeguards
Upgrade Project, Revision 1 (TAC Nos. 68588 and 68599)"

This letter is to provide documentation of a telephone conference of May 27,
1992 involving NSP personnel; Tad Marsh, Bill Long, Terrence Chan, and Mark
Hartzman of NRR; and Bruce Jorgenson of Region III.

The referenced Design Report for the Station Blackout/Electrical Safeguards
Upgrade Project (SBO/ESU) describes the implementation of ASME Section III
requirements for the project piping systems. The description also notes the
exceptions taken to ASME Section III requirements. The purpose for the
conference call was to provide further information regarding those exceptions.
Specifically, we were asked to discuss the quality assurance program measures
being utilized for the project piping systems.

Following is a written version of the verbal discussion provided in the
conference call.

Quality Assurance/Quality Control Program Application on SBO Piping Systems

- I. NSP Quality Assurance/Quality Control program for the SBO/ESU project is
based on the Prairie Island Operational Quality Assurance Plan. The
Operational Quality Assurance Plan invokes the direction provided by ANSI
N45.2-1971, Quality Assurance Program Requirements for Nuclear Power
Plants, and the ANSI N45.2 series of "daughter standards." The SBO/ESU
project utilizes departmental and project procedures which implement the
commitments of the Operational Quality Assurance Plan. A Corporate

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Directive covers the application of ASME Boiler and Pressure Vessel Code requirements, including Certified Design Specifications, Design Reports, Certified Mill Test Reports and Authorized Nuclear Inspection. To assure proper procedural implementation, NSP's Quality Assurance Department performs quality assurance audits and surveillances on project activities, including manufacturers and suppliers of ASME Code items.

11. Piping systems outside the diesel generator manufacturer's boundary are designed, fabricated and installed in accordance with ASME Section III, with the exceptions noted in the project design report previously submitted to the NRC. The primary exception is the omission of the requirement for N-Stamping of sub-assemblies and associated ASME Quality Assurance Program certification. To assure that the safety-related piping and system components fulfill applicable technical, inspection and test requirements, including those of ASME Section III for Class 3 components, the following are performed. These activities apply to the combustion intake, exhaust and starting air systems, and safety related sections of the fuel oil, lube oil and high temperature/low temperature cooling water systems.
 - a. Fluor Daniel, Inc. has been audited and approved to act as the Architect/Engineer for the SBO/ESU project.
 - b. Piping materials are procured per ASME Section II, with NPT-Stamping of pipe and fittings fabricated with the addition of weld metal. This includes the supplying of certified material test reports and the application of inspections and tests prescribed by ASME Sections II and III. The suppliers are on NSP's Approved Vendors List for safety-related suppliers.
 - c. Other safety-related system components are controlled similarly to that above, including design and fabrication to ASME Section III (without stamping).
1. Tanks were supplied by Moorehead Tank Co. of Minnesota, who is on NSP's Approved Vendors List. NSP recently audited Moorehead, and Moorehead was required to customize certain program features for the SBO/ESU project. NSP has regularly had quality control inspectors at Moorehead during important program and process steps (design and procedure review/approval; material, welding and cleanliness inspection, etc.). In addition, Moorehead had contracted the services of an Authorized Nuclear Inspector for third party inspections of the SBO/ESU tanks. The tank design was analyzed in accordance with ASME Section III by Moorehead subcontractor AEC Engineers Inc. (an NSP approved supplier). Further, the design and analysis was reviewed and approved by Fluor Daniel, Inc.

2. Valves were manufactured by Velan, who has been on NSP's Approved Vendors List for several years successively, overlapping SBO/ESU project procurements. Velan's quality assurance program had been audited recently (by Nuclear Utilities Procurement Issues Council) in August 1991.
- d. Piping sub-assemblies were fabricated by facilities approved by NSP Quality Assurance as "verified vendors" or at the Prairie Island site. These facilities perform their fabrication activities under NSP's Prairie Island Quality Assurance Program, utilizing NSP procedures. Material and NDE inspections were performed by NSP resident Level II or III inspectors who were stationed at the facilities during sub-assembly fabrication. NSP qualifies the welders in accordance with ASME Section IX and furnishes material testing services.
- e. NSP has contracted an Authorized Nuclear Inspector from Hartford Steam Boiler Inspection and Insurance Agency for performing inspections of piping systems at the fabrication facilities and project site. The Authorized Nuclear Inspector's verifications are essentially equivalent to those performed on an N-Stamp project (ASME Section III, NCA-5220), with the exception of those relating to quality assurance (N-Stamp) program certification. According to a recent count by the Authorized Nuclear Inspector, he has visited the fabricators or project site 270 times and has reviewed over 200 certified mill test reports and 1700 weld control records. The Authorized Nuclear Inspector and NSP are developing a pro-forma ASME Data Report for certifying piping acceptability with respect to the ASME Code, as applied to the SBO/ESU project.
- f. Fluor Daniel, Inc. has issued design specifications for SBO/ESU piping, and in concert with NSP, will develop an ASME Code Design Report. These documents will be consistent with ASME Section III, NCA-3000 requirements, following the guidance of Non-mandatory Appendixes B and C. The Code Design Report will certify the successful analysis of the piping systems in accordance with the 1986 edition of ASME Section III (with the exception of utilizing ANSI B31.1 material allowables for the exhaust piping) and reconcile any as-built variances from the design specifications.
- g. In addition to the inspections and tests performed in accordance with ASME Sections II and III, hangers on piping 4 inch and over will receive visual pre-service inspection by certified inspection personnel to accommodate future ASME Section XI activities.

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Please contact us if you have any questions related to this letter.

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for Thomas M Parker
Manager
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c: Regional Administrator - Region III, NRC
Senior Resident Inspector, NRC
NRR Project Manager, NRC
J E Silberg