MAR 8 1985

Docket/License: 50-423/CPPR-113

Northeast Nuclear Energy Company
ATTN: Mr. W. G. Counsil
Senior Vice President - Nuclear
Engineering and Operations Group
P. O. Box 270
Hartford, Connecticut 06141

Gentlemen:

Subject: Inspection 50-423/85-02 (1/8/85 - 2/4/85)

This refers to the routine safety inspection of the Millstone Nuclear Power Station, Unit No. 3 and to discussions of our findings held by Mr. T. Rebelowski of this office with Mr. Lefebvre and other members of your staff.

No violations were observed, and no reply to this letter is required.

Your cooperation with us is appreciated.

Sincerely,

Original Signed By:
for Lowell E. Tripp
Edward C. Wenzinger, Chief
Projects Branch No. 3
Division of Reactor Projects

Enclosure: NRC Region I Inspection Report No.
50-423/85-02 with Appendices A and B

cc w/encl:
V. Papadopoli, Construction Quality Assurance Supervisor
E. R. Foster, Director of Generation Construction
J. F. Opeka, Vice President, Nuclear Operations
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IE01
1/1

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Director, DRS&S
DPRP Section Chief

RI:DRP	RI:DRP	RI:DRP
Rebelowski/meo	McCabe	Lenzinger
3/6/85	3/6	3/7

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APPENDIX A

STATUS OF LICENSEE REPORTS OF POTENTIALLY SIGNIFICANT DEFICIENCIES

Review of potential significant deficiencies:

Unqualified Auxiliary Feedwater Pump Pressure Switches (SD-74) 85-00-07

On February 1, 1985, the applicant reported a potentially significant deficiency affecting all three Auxiliary Feedwater (AFW) pumps. The deficiency concerns a finding that the low lubricating oil pressure switches were not seismically qualified by the vendor, Bingham-Willamette. These switches could spuriously actuate during a seismic event and trip the AFW pumps, thus rendering all AFW inoperable.

The applicant is currently determining appropriate corrective actions for the AFW pump pressure switches and is reviewing other Bingham-Willamette pump applications for similar problems. This item remains open pending NRC review of the results of the applicant's analysis and corrective measures (85-00-07).

Potential Logic Error in Emergency Power Relays (SD-73) 85-00-06

On January 30, 1985, the applicant reported a potentially significant deficiency in the Emergency Diesel Generator (EDG) load sequencer. Testing of the sequencer indicates that loads will not be shed from safety buses should the diesel output breaker trip during certain loss-of-power scenarios (Containment Depressurization and Safety Injection). Such shedding is required prior to restoring the EDG to the safety buses. This item is open pending NRC review of the resolution of the occurrence (85-00-06). This item is similar to 85-00-04 in that the sequencer logic is involved, however, the initiating conditions for the unacceptable phenomenon are different.

Potentially Significant Installation Error in Pressure Transmitters (SD-72) 85-00-05

On January 18, 1985, the applicant reported a potentially significant deficiency involving Category I installations of Foxboro pressure transmitters. The vendor's installation instructions (MI 020-162) require both a downward conduit exit and a drain hole from the associated instrument junction box. These measures are necessary to avoid a build-up of condensation. Preliminary inspection found that several Foxboro pressure transmitters were installed without the required drain holes. This item is open pending NRC review of the applicant's evaluation and corrective actions (85-00-05).

Potential Logic Error in Emergency Power Relays (SD-71) 85-00-04

On January 17, 1985, the applicant reported a potentially significant deficiency in the Emergency Diesel Generator (EDG) load sequencer. Testing of the loss of power relays using the "auto test" device results in the undesired loss of all loads on the bus under test. The applicant is reviewing this matter in greater depth. This item is open pending resolution (84-00-04).

Potential Inoperability of Fire Dampers (SD-70) 85-00-03

On January 15, 1985, the applicant reported a problem concerning curtain-type fire dampers manufactured by Ruskin. The manufacturer reported that its spring-operated (not motor-operated) dampers may not close against air flow in all installed "in-duct" locations. The manufacturer has confirmed operability under no-flow conditions per Underwriters Laboratories (UL) test requirements and under flow conditions where the dampers are mounted at the face of a duct or tunnel. Preliminary evaluation by the applicant indicates that 17 of the affected dampers have been purchased and installed at Millstone. Evaluation as to the need for and nature of additional tests is underway. This item will remain open pending NRC review of the evaluation (85-00-03).

Possible Isolation Deficiencies in Westinghouse 7300 Cabinets (SD-69) 85-00-02

On January 11, 1985, the applicant reported a potentially significant deficiency concerning Westinghouse Model 7300 Process Control cabinets. Preliminary inspections of cabinet internals indicate that safety-grade power supply modules are tied to control-grade cables without appropriate isolation devices. Both NUSCO and Westinghouse are evaluating these findings. This item will remain open pending NRC review of these evaluations (85-00-02).

Possible Material Problem with Instrument Fittings (SD-68) 85-00-01

On January 9, 1985, the applicant reported a potentially significant deficiency regarding instrument tubing connectors and fittings manufactured by Parker-Hannifin Corporation. The manufacturer reported problems in specific heats of steel from which the fittings were fabricated. Preliminary review of purchase orders indicates that several hundred fittings were received from Parker-Hannifin for use at Millstone 3 under two separate purchase orders. Further analysis of this item is in progress. This item is open pending NRC review of the applicant's evaluation and corrective actions (85-00-01).

Improper Installation of Conduit Seals (SD-67) 84-00-18

On December 14, 1984, the applicant reported a potentially significant deficiency involving the failure to properly seal conduit entries to Rosemount pressure transmitters. The Rosemount instruction manual requires a thread sealant be applied where the conduit enters the transmitter. Four transmitter-to-conduit installations were found without the required sealant. The applicant is resolving the extent of the deficiency. Conduit seals are being reworked by NNECO. This item is open pending NRC review of the applicant's determination of the scope of the deficiency and pending rework (84-00-18).

General Electric Type SAM 11, 13, 15, and 99 Relays (SD-65) 84-00-16

On November 15, 1984, the applicant reported a potentially significant deficiency in General Electric Type SAM 11, 13, and 15 and some Type SAM 99 solid state time delay relays. A manfacture's Service Advisory Letter (SAL) reported that these relays could actuate in less than the desired delay interval. A preliminary

analysis of the application of these relays indicates that they are used in safety-related applications. One application identified is the protective circuity of the emergency diesel generator breakers. Early actuation in that application could allow a phase-to-ground fault to masquerade as a phase-to-phase fault, this initiating an undesired breaker trip. This item will remain open pending the completion of the applicant's analysis and subsequent NRC review (84-00-16).

Colt-Pielstick Diesel Lube Oil Pump Cracking (SD-66) 84-00-17

On December 10, 1984, the applicant reported a potentially significant deficiency involving the Colt-Pielstick Emergency Diesel Generators (EDGs). The engine-driven lubricating oil pump discharge receives a tapered thread adaptor. At the Shoreham facility, cracking was observed at the pump discharge and was attributed to excessive torque during thread adapter installation. It was determined that the EDGs at Millstone 3 incorporate similar tapered thread adapters. On January 8, 1985, the applicant reported that the results of visual inspections of the engine-driven lubricating oil pump discharge bosses revealed no evidence of cracking. The applicant concluded that this problem does not exist at Millstone 3. Inspector sample checks confirmed that. Both EDGs have undergone initial field testing without evidence of damage to the pumps in question. This item is closed. (The licensee plans to replace the tapered thread adapters with straight ones as a precaution, and that will be checked as appropriate during routine inspection.)

Westinghouse Thermal Sleeve Deficiencies (SD-24) 82-00-11

Following the loss of thermal sleeves at McGuire Unit 1, the applicant reported the incorporation of potentially similar thermal sleeves in the Millstone 3 design. The affected sleeves were of the Westinghouse "generation 3" configuration.

Memorandum NNEC-3-2379 dated September 14, 1984 documents the applicant's analysis of thermal sleeves incorporated into the Millstone 3 Reactor Coolant System (RCS) design. These are listed and discussed in the following.

Sleeve at RCS Entry Point from...	Disposition
2 Charging Lines and 4 High Pressure Safety Injection Lines	Applicant's disposition is that these sleeves were designed by Stone and Webster (S&W) and sufficiently diverse in configuration and attachment from the "generation 3" sleeves as to not pose similar problems. The inspector compared drawings of the designs and confirmed the diversity.
4 Cold Leg Accumulators	Early design documents refer to these sleeves; later documents do not. The inspector physically entered all four RCS loops, identified the cold leg accumulator junctions and confirmed that no thermal sleeves are currently installed.

Sleeve at RCS Entry Point from...	Disposition
4 Loop Fill Lines	The inspector reviewed the following documents indicating sleeve removal; E&DCR P-R-4865, S&W QC Report IR-P2000908, and NUSCO QA Surveillance Report C-2130. The interior of the loop piping in the vicinity of the loop fill entries was inaccessible for physical inspection.
1 Pressurizer Surge Line	Applicant's disposition in that the sleeve is of the Westinghouse "generation 4" configuration and is sufficiently diverse from the "generation 3" configuration as not to pose similar problems. The inspector compared drawings of the designs and confirmed the diversity.

Based on physical inspection and record review, this item is closed.

APPENDIX B

STATUS OF IE BULLETINS

IE No.	Discussion
80-01	Boiling Water Reactors (BWR) Automatic Depressurization System Accumulators are addressed by this Bulletin. The Bulletin is applicable only to General Electric BWRs. This Bulletin is closed.
80-02	This Bulletin applies to BWR licensees only. It addresses feedwater spargers and thermal sleeves manufactured by Marvin Engineering Company. The applicant has determined that no components from that manufacturer were purchased for any application at Millstone 3. This Bulletin is closed.
80-04	This Bulletin discusses possible errors in PWR main steam line break accident analyses for events which involve continued feedwater addition. The applicant's analysis has been reviewed by the NRC Office of Nuclear Reactor Regulation (NRR) and been found to be acceptable. The inspector reviewed the documentation of this finding in the Safety Analysis Report, Sections 6.2.1.4 and 15.1.5. This Bulletin is closed.
80-06	This Bulletin addresses the potential for Engineered Safety Features (ESF) equipment to change state from the post-accident condition following a reset of the ESF actuation logic. The applicant has analyzed the current plant ESF control logic and has determined that required ESF equipment will remain in the desired state following a reset of the actuation logic. The NRC Office of NRR has reviewed this analysis and deemed it to be acceptable. The inspector reviewed the documentation of this finding in the Safety Analysis Report Section 7.3.3.6. This Bulletin will remain open pending inspector review of a planned test to verify these findings.
80-07	This Bulletin addresses Jet Pumps at BWR facilities and is applicable only to BWRs. This Bulletin is closed.
80-10	This Bulletin describes potential contamination of non-radioactive systems leading to evenutualunmonitored and uncontrolled releases of radioactive material to the environment. The applicant has included provisions for effluent and waste monitoring in the facility design as documented in FSAR Section 11. Safety Evaluation Report Section 11.5.2 documents NRC acceptance of the monitoring systems. The inspector reviewed the applicant's periodic sampling program for yard drains and catch basins as documented in Procedure SP-821/2821. Millstone 3 yard drains cascade into discharge point S/N-006. This point is periodically sampled and analyzed for radioactivity as part of the SP 821/2821 program. (Ref. Memo MP-S-CH-501) This sampling program provides a second level of defense against unplanned

IE No.	Discussion
	or unexpected release pathways. This Bulletin remains open pending verification of the adequacy of the licensee's program for sampling normally non-radioactive systems for radioactivity.
80-12	This Bulletin addresses losses of decay heat removal capability. Operating PWR licensees were to determine the vulnerability of their facilities to a total loss of decay heat removal and to implement controls to ensure against disabling of all decay heat removal systems. The applicant detailed the redundancy of the decay heat removal systems in FSAR Section 5.4.7. Safety Evaluation Report Section 5.4.7.1 documents NRC staff acceptance of the redundancy and independence of the system design. The inspector reviewed the applicant's submittal of proposed Technical Specifications dated December 7, 1984 (Letter Serial E-11394) which prescribe decay heat removal operability in Section 3/4.4.1 for various modes of operation. This Bulletin is closed.
80-13	This Bulletin addresses cracking in Core Spray Spargers and is applicable only to BWRs. This Bulletin is closed.
80-14	This Bulletin addresses modifications to the Scram Discharge Volume of BWRs and applies only to those facilities. This Bulletin is closed.
80-15	This Bulletin addresses the possible loss of the Emergency Notification System (ENS) due to a loss of offsite power. The applicant has designed the ENS system to operate with or without offsite power. The inspector noted that the ENS availability under circumstances of loss of offsite power was accepted by the NRC staff (NRR) in Safety Analysis Report Section 9.5.2.2(4). This item will remain open pending inspector review of procedures which addresses alternate notification channels and reporting requirements in case of ENS inoperability and pending demonstration of proper functioning of the ENS power sources.
80-16	This Bulletin addresses potential misapplications of Rosemount Model 1151 and 1152 pressure transmitters with certain output codes. The applicant responded to this Bulletin by letter dated February 12, 1982 (serial NES-26755). The applicant has determined that Rosemount Model 1151 and 1152 pressure transmitters were not purchased for use at Millstone. The inspector reviewed that response and noted that Rosemount Model 1151 and 1152 pressure transmitters are listed in the applicants Deficient Item List to preclude future purchase. This Bulletin is closed.
80-17	This Bulletin addresses Scram Discharge Volume Monitoring Systems and applies only to BWRs. This Bulletin is closed.

IE No.	Discussion
80-22	This Bulletin addresses failures of Automation Industries Model 200-520-008 Sealed Source Connectors for radiography sources and actions by by-product material licensees owning such sources. The inspector reviewed documentation showing that neither the utility nor its A/E plan to allow the use of Automation Industries radiography sources at Millstone 3. This Bulletin is closed.
80-24	This Bulletin addresses measures to prevent the flooding of containment. Actions were specified for plant designs that include open cooling systems inside containment. Millstone 3 utilitizes no open cooling water systems, as defined in Bulletin 80-24, inside containment. The Component Closed Cooling Water (CCCW) system used for area air coolers is a closed system, as defined in the Bulletin. Further protection against containment flooding is provided by the non-safety grade containment building sump level control portion of the aerated radioactive drains system. That system features automatic sump pump starting upon a high sump level condition, alarms when power is unavailable, and process computer monitoring of pump runs. The final Safety Analysis Report Section 9.3.3 describes the aerated drains system in detail. This Bulletin is closed.
80-25	This Bulletin addresses Target Rock Safety-Relief valves at BWRs and applies only to those facilities. This Bulletin is closed.
83-02	This Bulletin addresses stress corrosion cracking in large diameter piping and is unique to BWRs. This Bulletin is closed.
83-03	This Bulletin describes incidents of Emergency Diesel Generator (EDG) inoperability due to failures in cooling water system check valves. For plants incorporating check valves into the raw cooling water systems for the EDGs, specific monitoring tests and inclusion in the In-Service Testing (IST) program are specified. The raw cooling water for both EDGs at Millstone 3 is supplied by the service water system. The inspector verified from drawing review (NUSCO 25212-26933 Sheet 2 of 2) and physical inspection that no check valves are incorporated in the EDG raw cooling piping. Also, the applicant plans to submit a comprehensive IST program to the NRC for review during 1985. This Bulletin is closed.
84-01	This Bulletin addresses cracking in BWR Mark I containment vent headers. The specific concerns of the Bulletin are unique to BWRs. The generic concern of cold gas impingement damage is discussed in Information Notice 84-17 and is addressed for Millstone 3 in Appendix A to Inspection Report 50-423/84-25. This Bulletin is closed.