



July 5, 2012

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

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NLOS/WDC R0
Docket Nos. 50-336
50-423
License Nos. DPR-65
NPF-49

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNITS 2 AND 3
RELIEF REQUESTS RR-04-09 AND IR-3-15, USE OF ALTERNATIVE
PRESSURE/FLOW TESTING REQUIREMENTS FOR SERVICE WATER SYSTEM
SUPPLY PIPING

Pursuant to 10 CFR 50.55a(a)(3)(ii), Dominion Nuclear Connecticut, Inc. (DNC) requests relief for Millstone Power Station Unit 2 (MPS2) and Unit 3 (MPS3) from certain examination and testing requirements of Section XI of the 2004 American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code. Specifically, DNC requests approval of alternative methods for performing the leakage testing as required by ASME Section XI, Table IWD-2500-1 and IWD-5220 for the piping segments of the Service Water System located in the confined space of the intake structure bays. The proposed alternatives and relief from specific 2004 ASME Code requirements are provided in Attachments 1 and 2.

If you have any questions regarding this submittal, please contact Wanda Craft at (804) 273-4687.

Sincerely,

J. Alan Price
Vice President – Nuclear Engineering

A047
HRR

Attachments:

1. Relief Request RR-04-09, Use of Alternative Pressure/Flow Testing Requirements for Service Water System Supply Piping
2. Relief Request IR-3-15, Use of Alternative Pressure/Flow Testing Requirements for Service Water System Supply Piping

Commitments made in this letter: None

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ATTACHMENT 1

RELIEF REQUEST RR-04-09
USE OF ALTERNATIVE PRESSURE/FLOW TESTING REQUIREMENTS FOR
SERVICE WATER SYSTEM SUPPLY PIPING

MILLSTONE POWER STATION UNIT 2
DOMINION NUCLEAR CONNECTICUT, INC.

Proposed Alternative
In Accordance with 10 CFR 50.55a(a)(3)(ii)

--Hardship or Unusual Difficulty
Without Compensating Increase in Level of Quality or Safety--

1. ASME Code Components Affected

ASME Code Class: Code Class 3

Reference: ASME Section XI, Table IWD-2500-1 and IWD-5220

Examination Category: D-B

Item Number: D2.10

Description: Millstone Power Station Unit 2 (MPS2) piping segments consist of two trains of 24" Service Water System (SWS) supply piping located in the intake structure bays. This piping material consists of spools that are A-106, Grade B carbon steel, spools that are 6% Molybdenum Stainless Steel (UNS N08367) also known as AL-6XN, and spools that are Cast Ductile-Iron.

Components: The applicable piping line number is identified as 24"-JGD-1 and 24"-KE-1 (Reference Piping & Instrumentation Drawing (P&ID) 25203-26008, Sheet 2).

An excerpt of P&ID 25203-26008, Sheet 2 and Piping Isometric Drawings 25203-20150 Sheet 679 and 25203-20150 Sheet 1080 are provided for information only, with the subject piping clouded for identification.

2. Applicable Code Edition and Addenda

ASME Section XI, 2004 Edition (No Addenda)

3. Applicable Code Requirement

The 2004 Edition of ASME Section XI, Table IWD-2500-1, Examination Category D-B and IWD-5220 requires, for Class 3 piping, a VT-2 visual examination be performed during a system leakage test conducted at the pressure obtained while

the system is in-service performing its normal operating function. The leakage test is required to be performed once each inspection period.

4. Reason for Request

DNC requests approval of alternative methods for performing the leakage testing as required by ASME Section XI, Table IWD-2500-1 and IWD-5220 for the "A" and "B" train piping segments of the MPS2 SWS located in the normally inaccessible confined space of the intake structure bays. This alternative is requested on the basis that compliance with the specified requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

The subject "A" train piping segment runs vertically through the floor of the service water pump cubicle for a distance of 7.5 feet and then travels horizontally through four intake structure bays for a distance of approximately 69 feet until it passes through the outer wall of the intake structure, where it continues underground to the turbine building. Approximately 10.5 feet of this piping has been upgraded to piping material with 6% molybdenum stainless steel (UNS N08367), also known as AL-6XN. The remaining piping is approximately 64.5 feet of A-106, Grade B carbon steel externally coated with Carbomastic 14, and 1.5 feet of cast ductile-iron piping, both internally lined with an Insituform CIPP (Cured In-place Pipe) epoxy impregnated material applied to enhance long-term life.

The subject "B" train piping segment runs vertically through the floor of the service water pump cubicle for a distance of 8 feet and then travels horizontally through one intake structure bay for a distance of approximately 14 feet until it passes through the outer wall of the intake structure, where it then continues underground to the turbine building. Approximately 19.5 feet of this piping has been upgraded to piping material with 6% molybdenum stainless steel (UNS N08367). The remaining piping is approximately 2.5 feet of cast ductile-iron piping, internally lined with an Insituform CIPP epoxy impregnated material applied to enhance long-term life.

The underground portions of the SWS piping are the subject of a similar request (RR-04-05) submitted for the current fourth 10-year inspection interval and therefore, are not included as part of this request.

Visual examination of this piping requires entry into each of the four intake structure bays. There is limited access to each bay from an access hatch that is located in the intake structure floor. Personnel entry into this confined space requires each bay to be taken out of service along with associated SWS pumps, Circulating Water pumps, Screen Wash pumps and traveling debris screens. There are no platforms located in the bays. Scaffolding has to be erected in each bay to provide the examiner a safe means to access the piping to perform the examination. Erecting the scaffolding is difficult because of safety risks associated with moving personnel and materials into the confined space of the bay areas. Two of the bays contain structural steel that can support scaffolding being erected over the water in the bay.

The remaining two bays require scaffolding to be erected from the floor of the bay up to the subject piping which requires each bay to be completely isolated and drained.

During spring 2011, significant work was performed to stage and prepare two of the four bays to support planned maintenance activities. The work was performed in the two bays which contain structural steel which will support scaffold. Scaffold was erected to allow personnel access to support a piping upgrade to AL-6XN material on the "B" train piping in the "D" bay and major Circulating Water pump work in "A" bay. Additionally, since the scaffold allowed access, a VT-2 visual examination was performed on the subject piping located in those bays with no leakage or piping degradation identified.

5. Proposed Alternative and Basis for Use

5.1 Proposed Alternative

Dominion Nuclear Connecticut, Inc. (DNC) proposes to use, as an alternative to the requirements of IWD-5220, a verification of unimpaired flow to provide an acceptable level of quality and safety. For the segment of the subject pipe, periodic flow testing will be performed in accordance with Inservice Test (IST) Program surveillance procedures. These surveillance procedures require flow to be measured, recorded and compared to established acceptance criteria to provide the assurance that flow is not impaired during operation.

5.2 Basis for Use

Flow testing of the three MPS2 SWS pumps is performed quarterly and uses an established minimum flow rate specified in the IST procedures as the acceptance criteria for the pressure testing of the associated SWS pipe segments. The flow rate is currently specified as 10,300 gallons per minute (gpm).

During IST surveillances, if the minimum flows are not achieved, the pump(s) would be declared inoperable and a condition report initiated in accordance with the Millstone Power Station Corrective Action Program, with further corrective actions, as required, to restore the pump(s) and/or system to an operable status.

Additionally, internal visual inspection is performed on the subject pipe segments periodically during plant refueling outages to ensure the piping and lining are not experiencing unacceptable degradation. The most recent internal visual inspections were performed in fall 2009 for "A" train and spring 2011 for "B" train with no unsatisfactory conditions identified.

As noted above, the benefit accrued in performing the specified VT is not deemed commensurate with the hardship and operational risk in taking safety-related equipment out of service and preparing each of the four bays for personnel entry to conduct the inspection. Based on the use of IST to verify that

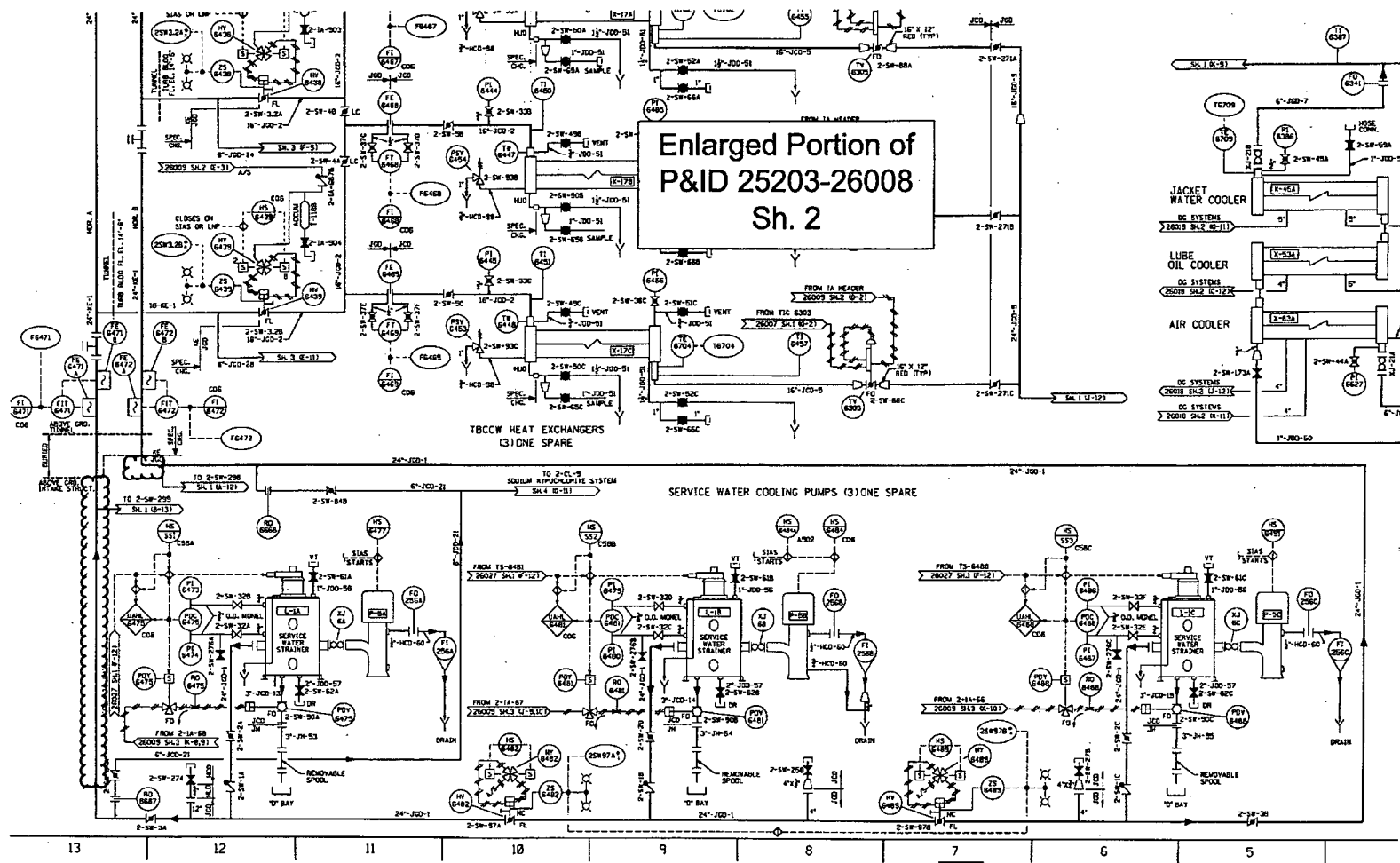
flow through the subject piping is unimpaired in conjunction with the periodic internal visual inspections, this alternative provides a reasonable assurance of operational readiness and continued structural integrity and therefore, an acceptable level of quality and safety.

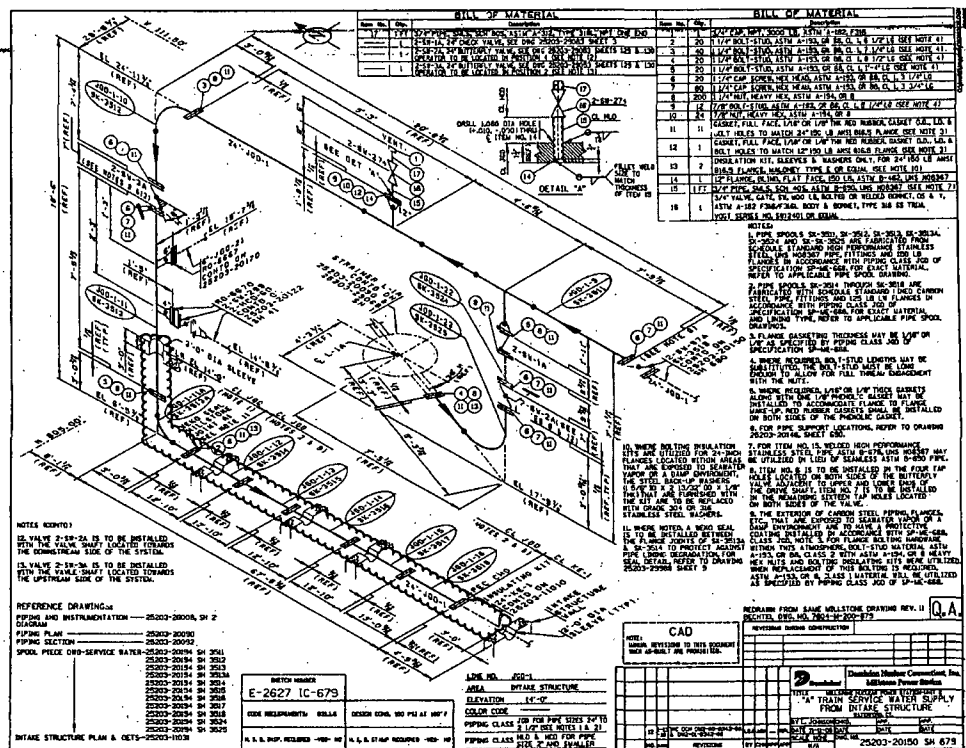
6. Duration of Proposed Alternative

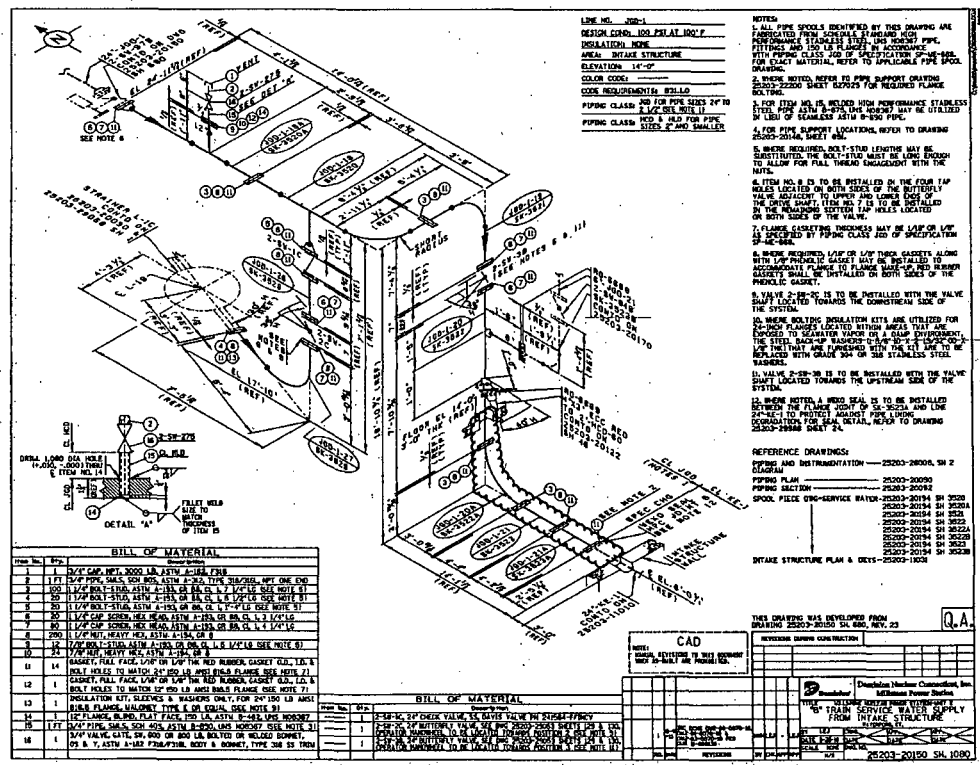
This relief is requested for the duration of the fourth 10-year inservice inspection interval, which began on April 1, 2010, and is scheduled to end on March 31, 2020.

7. References

A similar relief request for the underground portions of this SWS piping at MPS2 (RR-04-05) was approved in a letter dated July 22, 2011 for the current fourth 10-year inservice inspection interval (ADAMS Accession No. ML111870600).







ATTACHMENT 2

RELIEF REQUEST IR-3-15
USE OF ALTERNATIVE PRESSURE/FLOW TESTING REQUIREMENTS FOR
SERVICE WATER SYSTEM SUPPLY PIPING

**MILLSTONE POWER STATION UNIT 3
DOMINION NUCLEAR CONNECTICUT, INC.**

**Proposed Alternative
In Accordance with 10 CFR 50.55a(a)(3)(ii)**

--Hardship or Unusual Difficulty
Without Compensating Increase in Level of Quality or Safety--

1. ASME Code Components Affected

ASME Code Class: Code Class 3

Reference: ASME Section XI, Table IWD-2500-1 and IWD-5220

Examination Category: D-B

Item Number: D2.10

Description: Millstone Power Station Unit 3 (MPS3) "B" train, 30" Service Water System (SWS) supply piping located in the intake structure bays. The piping material is SB-127 (Monel).

Components: The applicable piping line number is identified as 3-SWP-030-3-3 (Reference Piping & Instrumentation Drawing (P&ID) P&ID 25212-26933 Sheet 1).

An excerpt of P&ID 25212-26933 Sheet 1 and Piping Isometric Drawing 25212-21041 Sheet 9 are provided for information only, with the subject piping clouded for identification.

2. Applicable Code Edition and Addenda

ASME Section XI, 2004 Edition (No Addenda)

3. Applicable Code Requirement

The 2004 Edition of ASME Section XI, Table IWD-2500-1, Examination Category D-B and IWD-5220 requires, for Class 3 piping, a VT-2 visual examination be performed during a system leakage test conducted at the pressure obtained while the system is in-service performing its normal operating function. The leakage test is required to be performed once each inspection period.

4. Reason for Request

DNC requests approval of alternative methods for performing the leakage testing, as required by ASME Section XI, Table IWD-2500-1 and IWD-5220, for the piping segment of the MPS3 SWS located in the confined space of the intake structure bays. This alternative is requested on the basis that compliance with the specified requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

The subject piping is the common "B" train SWS header piping that runs vertically through the floor of the "B" SWS pump cubicle for a distance of 11 feet and then travels horizontally through five intake bays for a distance of approximately 88 feet in this normally inaccessible area until it enters and passes through the accessible area of the intake structure chlorine room. The piping continues underground to the auxiliary building. The piping located in the chlorine room is subject to the required VT-2 examination.

The downstream underground portion of the SWS piping is the subject of a similar request (IR-3-07) previously approved for this current third 10-year inspection interval and therefore, is not included as part of this request.

Visual examination of this piping requires entry into each of the five intake structure bays. There is limited access to each bay from an access hatch that is located in the intake structure floor. Personnel entry into this confined space requires each bay to be taken out of service along with the associated SWS pumps, Circulating Water pumps, Screen Wash pumps and intake structure traveling debris screens. There are small platforms located at the base of the bay access ladders, however, they are not sufficient to adequately perform the examination. Scaffolding has to be erected in each bay to provide the examiner a safe means to access the piping within sufficient distance to perform the examination. Erecting the scaffolding is difficult because of safety risks associated with moving personnel and materials into the confined space of the bay areas. Due to the physical arrangement of the intake structure, the scaffolding in each bay has to be erected from the floor of the bay up to the subject piping, which requires each bay to be completely isolated and drained.

5. Proposed Alternative and Basis for Use

5.1 Proposed Alternative

Dominion Nuclear Connecticut, Inc. (DNC) proposes to use, as an alternative to the requirements of IWD-5220, a verification of unimpaired flow to provide an acceptable level of quality and safety. For the segment of the subject pipe, periodic flow testing will be performed in accordance with Inservice Test (IST) Program surveillance procedures. These surveillance procedures require flow to be measured, recorded and compared to established acceptance criteria to provide the assurance that flow is not impaired during operation.

5.2 Basis for Use

Flow testing of the four MPS3 SWS pumps is performed quarterly and uses an established minimum flow rate specified in the IST procedures as the acceptance criteria for the pressure testing of the associated SWS pipe segment. The flow rate is currently specified as 8820 gallons per minute (gpm).

During the IST surveillances, if the minimum flows cannot be achieved, the pump(s) would be declared inoperable and a condition report initiated in accordance with the Millstone Power Station Corrective Action Program with further corrective actions, as required, to restore the pump(s) and/or system to an operable status.

Additionally, internal visual inspection is performed on the subject piping periodically during plant refueling outages to ensure the piping is not experiencing unacceptable degradation. The most recent internal visual inspection was performed in April 2010, with no unsatisfactory conditions identified.

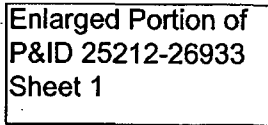
As noted above, the benefit accrued in performing the specified VT-2 examination is not deemed commensurate with the hardship and operational risk in taking safety-related equipment out of service and preparing each of the five bays for personnel entry to conduct the inspection. Based on the use of IST to verify that flow through the subject piping is unimpaired in conjunction with the periodic internal visual inspections, this alternative provides a reasonable assurance of operational readiness and continued structural integrity and therefore, an acceptable level of quality and safety.

6 Duration of Proposed Alternative

This relief is requested for the duration of the third 10-year inservice inspection interval, which began on April 23, 2009, and is scheduled to end on April 22, 2019.

7 References

A similar relief request for the underground portions of this SWS piping at MPS3 (IR-3-07) was approved in a letter dated February 4, 2010 for the current third 10-year inservice inspection interval (ADAMS Accession No. ML093580156).



- NOTES
1. ALL INSTRUMENT AND EQUIPMENT NUMBERS FOR CHEMICAL FEED (ORDINATION) SYSTEM TO BE PREFIXED WITH "ORDIN" AND INSTRUMENT OR EQUIPMENT NUMBERS FOR PROTECTIVE SYSTEM, AN ASTERISK (*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR INSTRUMENT OR EQUIPMENT NUMBERS WHICH ARE A PART OF NUCLEAR SAFETY FEATURES SYSTEM.
2. ALL INSTRUMENT AND EQUIPMENT NUMBERS FOR SERVICE WATER SYSTEM TO BE PREFIXED WITH "SERVICE" WHERE A DIFFERENT PREFIX IS SO INDICATED.
3. ALL INSTRUMENT AND EQUIPMENT NUMBERS FOR PROTECTIVE FOR EQUIPMENT OR INSTRUMENTS WHICH ARE A PART OF NUCLEAR SAFETY FEATURES SYSTEM.
4. AN ASTERISK (*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR EQUIPMENT OR INSTRUMENTS WHICH ARE A PART OF NUCLEAR SAFETY FEATURES SYSTEM.
5. MISCELLANEOUS ABBREVIATIONS AND SYMBOLS:
- → → → FREON LINE
- — — — SAFETY CLASS CHANGE POINT.
6. ALL SERVICE WATER PIPING IS CLASS 150 UNLESS OTHERWISE NOTED.
7. THE RESIDUAL CHLORINE ANALYZER 38TC-A43 RLL BE INSTALLED BUT NOT USED.
8. 150# FITTINGS AND 150# FLANGE SCALE CARDS WHICH ARE TO BE USED IN B30 PLANT.
9. SPECIAL PIECE REMOVED AND BLIND FLANGES INSTALLED DURING NORMAL OPERATION. SPECIAL PIECE INSTALLED DURING EMERGENCY OPERATION ONLY.
10. SPECIAL LEAK PREVIABILITY IS REQUIRED. LOSS BOUNDARY ISOLATION VALVES #1916, #1922, #1933 OR #1934 ARE TO BE CLOSED PRIOR TO OPERATING CONTROLLER REACTOR PRESSURE BOUNDARY.
11. ALL VENT, DRAIN, TEST AND INSTRUMENT ROOT CONNECTIONS ARE 3/4" UNLESS OTHERWISE NOTED.
12. 150# FITTING#1474, 1475, 150# 1540, 1549, 1550, 1556, 1564 & 1568 ARE SCALE CARDS WHICH ARE TO BE USED IN 250# FITTING.
13. DELETED
14. DELETED
15. DELETED
16. POWER AND SLAVE VALVES PL48-AS-15 UPON COMPLETION OF POWER SYSTEM.

