



**Northeast
Nuclear Energy**

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The Northeast Utilities System

NOV 22 1999

Docket No. 50-423
B17910

Re: 10 CFR 50.59

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

**Millstone Nuclear Power Station, Unit No. 3
Change to Technical Specification Bases Sections
3/4.8.1 A. C. Sources, D.C. Sources, and Onsite Power Distribution (TSCR 3-8-99)**

Northeast Nuclear Energy Company (NNECO) is providing the NRC Staff with a change to Technical Specification Bases Sections 3/4.8.1, "A. C. Sources, D.C. Sources, and Onsite Power Distribution" for information only. This change was reviewed and approved by the Millstone Unit No. 3 Plant Operations Review Committee in accordance with the provisions of 10 CFR 50.59.

Description of Change

Technical Specification (TS) Bases Section 3/4.8.1 is being revised to define the "standby" condition for Emergency Diesel Generator (EDG) surveillance testing. Currently several EDG surveillances are specified to be initiated from the "standby" condition. Standby conditions for the diesel generator means that the EDG system is aligned for automatic start and loading, diesel engine coolant and lubricating oil are being circulated and temperatures are maintained within design ranges. Design ranges for standby temperatures are greater than or equal to, the low temperature alarm setpoints and less than or equal to, the standby "keep-warm" heater shutoff temperatures for each respective sub-system.

In addition to the above, the intent of TS 4.8.1.1.2.g.7 is clarified with respect to performing "hot" restarts following the 24 hour EDG endurance run. TS surveillance requirement 4.8.1.1.2.g.7 states "within 5 minutes of completing this 24-hour test, perform TS 4.8.1.1.2.a.5", which is the monthly surveillance test. However, the monthly surveillance test specifies that the EDG be started from the standby condition which is not possible when performing a "hot" restart test. The intent of TS surveillance

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requirement 4.8.1.1.2.g.7 is to allow restart of the EDG as per one of the methods listed in TS surveillance requirement 4.8.1.1.2.a.5.

There are no regulatory commitments contained within this letter.

If you have any questions, please contact Mr. David. W. Dodson at (860) 447-1791, extension 2346.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

FOR: Raymond P. Necci
Vice President - Nuclear Oversight and
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BY:



David A. Smith
Manager - Regulatory Affairs

cc: H. J. Miller, Region I Administrator
J. A. Nakoski, NRC Project Manager, Millstone Unit No. 3
A. C. Cerne, Senior Resident Inspector, Millstone Unit No. 3

Director
Bureau of Air Management
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Attachment 1

Millstone Nuclear Power Station, Unit No. 3

Marked Up Technical Specification Page

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3/4.8 ELECTRICAL POWER SYSTEMS

4/15/97

BASES3/4.8.1, 3/4.8.2, and 3/4.8.3 A.C. SOURCES, D.C. SOURCES, and ONSITE POWER DISTRIBUTION

Technical Specification 3.8.1.1.b.1 requires a minimum volume of 278 gallons be contained in each of the diesel generator day tanks. Technical Specification 3.8.1.2.b.1 requires a minimum volume of 278 gallons be contained in the required diesel generator day tank. This capacity ensures that a minimum usable volume of 189 gallons is available to permit operation of each of the diesel generators for approximately 27 minutes with the diesel generators loaded to the 2,000 hour rating of 5335 kW. The shutoff level for the (two) fuel oil transfer pumps is 493 gallons (413 gallons usable volume) which corresponds to approximately 60 minutes of engine operation at the 2,000 hour rating. The first pump has a make-up setpoint of 372 gallons (284 gallons usable volume) which corresponds to approximately 42 minutes of operation at the 2,000 hour rating. The 278 gallon day tank low level value corresponds to the auto make-up setpoint of the second pump and is therefore the lowest value of fuel oil with auto make-up capability. Loss of the two redundant pumps would cause day tank level to drop below the minimum value.

Technical Specification 3.8.1.1.b.2 requires a minimum volume of 32,760 gallons be contained in each of the diesel generator's fuel storage systems. Technical Specification 3.8.1.2.b.2 requires a minimum volume of 32,760 gallons be contained in the required diesel generator's fuel storage system. This capacity ensures that a minimum usable volume (29,180 gallons) is available to permit operation of each of the diesel generators for approximately three days with the diesel generators loaded to the 2,000 hour rating of 5335 kW. The ability to cross-tie the diesel generator fuel oil supply tanks ensures that one diesel generator may operate up to approximately six days. Additional fuel oil can be supplied to the site within twenty-four hours after contacting a fuel oil supplier.

Surveillance Requirements 4.8.1.1.2.a.6 (monthly) and 4.8.1.1.2.b (once per 184 days) and 4.8.1.1.2.g.7 (18 months test)

The Surveillances 4.8.1.1.2.a.6 and 4.8.1.1.2.b verify that the diesel generators are capable of synchronizing with the offsite electrical system and loaded to greater than or equal to continuous rating of the machine. A minimum time of 60 minutes is required to stabilize engine temperatures, while minimizing the time that the diesel generator is connected to the offsite source. Surveillance Requirement 4.8.1.1.2.g.7 requires demonstration once per 18 months that the diesel generator can start and run continuously at full load capability for an interval of not less than 24 hours, ≥ 2 hours of which are at a load equivalent to 110% of the continuous duty rating and the remainder of the time at a load equivalent to the continuous duty rating of the diesel generator. The load band is provided to avoid routine overloading of the diesel generator. Routine overloading may result in more frequent teardown inspections in accordance with vendor recommendations in order to maintain diesel generator operability. The load band specified accounts for instrumentation inaccuracies using plant computer and for the operational control capabilities and human factor characteristics. The note (*, ***) acknowledges that momentary transient outside the load range shall not invalidate the test.

INSERT 'A'
INSERT 'B'

INSERT-A

Surveillance Requirements 4.8.1.1.2.a.5 (Monthly), 4.8.1.1.2.b (Once per 184 Days), 4.8.1.1.2.g.4.b (18 Month Test), 4.8.1.1.2.g.5 (18 Month Test) and 4.8.1.1.2.g.6.b (18 Month Test)

Several diesel generator surveillance requirements specify that the emergency diesel generators are started from a standby condition. Standby conditions for a diesel generator means that the EDG system is aligned for automatic start and loading, diesel engine coolant and lubricating oil are being circulated and temperatures are maintained within design ranges. Design ranges for standby temperatures are greater than or equal to the low temperature alarm setpoints and less than or equal to the standby "keep-warm" heater shutoff temperatures for each respective sub-system.

INSERT-B

Surveillance Requirement 4.8.1.1.2.g.7 (18 Month Test)

The existing "standby condition" stipulation contained in specification 4.8.1.1.2.a.5 is superceded when performing the hot restart demonstration required by 4.8.1.1.2.g.7.

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Attachment 2

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Retyped Technical Specification Page

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3/4.8 ELECTRICAL POWER SYSTEMS

BASES

Surveillance Requirements 4.8.1.1.2.a.5 (Monthly), 4.8.1.1.2.b (Once per 184 Days), 4.8.1.1.2.g.4.b (18 Month Test), 4.8.1.1.2.g.5 (18 Month Test) and 4.8.1.1.2.g.6.b (18 Month Test)

Several diesel generator surveillance requirements specify that the emergency diesel generators are started from a standby condition. Standby conditions for a diesel generator means that the EDG system is aligned for automatic start and loading, diesel engine coolant and lubricating oil are being circulated and temperatures are maintained within design ranges. Design ranges for standby temperatures are greater than or equal to the low temperature alarm setpoints and less than or equal to the standby "keep-warm" heater shutoff temperatures for each respective sub-system.

Surveillance Requirement 4.8.1.1.2.g.7 (18 Month Test)

The existing "standby condition" stipulation contained in specification 4.8.1.1.2.a.5 is superseded when performing the hot restart demonstration required by 4.8.1.1.2.g.7.