

PROPOSED TECHNICAL SPECIFICATION CHANGES

SPECIFICATIONS:	B3/4.8	MARKUP CURRENT TECH SPEC
	6.8.4	MARKUP CURRENT TECH SPEC
SPECIFICATIONS:	B3/4.8	MARKUP ULNRC-3244 SUBMITTED RETYPE TECH SPEC
	6.8.4	MARKUP UNNRC-3244 SUBMITTAL RETYPE TECH SPEC

## ELECTRIC POWER SYSTEMS

### BASES

#### A.C. SOURCES, D.C. SOURCES, and ONSITE POWER DISTRIBUTION (Continued)

~~engine overspeed trip to prevent damage to the engine. Recovery from the transient caused by the loss of a large load could cause diesel engine overspeed, which, if excessive, might result in a trip of the engine. Surveillance Requirement 4.8.1.1.2.f(2) demonstrates the DG load response characteristics and capability to reject the largest single load without exceeding predetermined voltage and frequency and while maintaining a specified margin to the overspeed trip as required by Regulatory Guide 1.9, Position C.4.~~

The Surveillance Requirements for demonstrating the OPERABILITY of the station batteries are based on the recommendations of Regulatory Guide 1.129, "Maintenance Testing and Replacement of Large Lead Storage Batteries for Nuclear Power Plants," February 1978; and IEEE Std 450-1980, "IEEE Recommended Practice for Maintenance, Testing, and Replacement of Large Lead Storage Batteries for Generating Stations and Substations."

Verifying average electrolyte temperature above the minimum for which the battery was sized, total battery terminal voltage on float charge, connection resistance values and the performance of battery service and discharge tests ensures the effectiveness of the charging system, the ability to handle high discharge rates and compares the battery capacity at that time with the rated capacity.

Table 4.8-2 specifies the normal limits for each designated pilot cell and each connected cell for electrolyte level, float voltage and specific gravity. The limits for the designated pilot cells float voltage and specific gravity, greater than 2.13 volts and 0.015 below the manufacturer's full charge specific gravity or a battery charger current that had stabilized at a low value, is characteristic of a charged cell with adequate capacity. The normal limits for each connected cell for float voltage and specific gravity, greater than 2.13 volts and not more than 0.020 below the manufacturer's full charge specific gravity with an average specific gravity of all the connected cells not more than 0.010 below the manufacturer's full charge specific gravity, ensures the OPERABILITY and capability of the battery.

Operation with a battery cell's parameter outside the normal limit but within the Allowable Value specified in Table 4.8-2 is permitted for up to 7 days. During this 7-day period: (1) the Allowable Value for electrolyte level ensures no physical damage to the plates with an adequate electron transfer capability; (2) the Allowable Value for the average specific gravity of all the cells, not more than 0.020 below the manufacturer's recommended full charge specific gravity, ensures that the decrease in rating will be less than the safety margin provided in sizing; (3) the Allowable Value for an individual cell's specific gravity, ensures that an individual cell's specific gravity will not be more than 0.040 below the manufacturer's full charge specific gravity and that the overall capability of the battery will be maintained within an acceptable limit; and (4) the Allowable Value for an individual cell's float voltage, greater than 2.07 volts, ensures the battery's capability to perform its design function.

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### DIESEL FUEL OIL TESTING PROGRAM

In accordance with Technical Specification 6.8.4, a Diesel Fuel Oil Testing Program to implement required testing of both new fuel oil and stored fuel oil shall be established. For the intent of this specification, new fuel oil shall represent diesel fuel oil that has not been added to the Diesel Fuel Oil Storage Tanks. Once the fuel oil is added to the Diesel Fuel Oil Storage Tanks, the diesel fuel oil is considered stored fuel oil, and shall meet the Technical Specification requirements for stored fuel oil.

Tests listed below are a means of determining whether new fuel oil is of the appropriate grade and has not been contaminated with substances that would have an immediate detrimental impact on diesel engine combustion. If results from these tests are within acceptable limits, the new fuel oil may be added to the storage tanks without concern for contaminating the entire volume of fuel oil in the storage tanks. These tests are to be conducted prior to adding the new fuel to the storage tanks, but in no case is the time between receipt of the new fuel oil and conducting the tests to exceed 30 days. The tests, limits, and applicable ASTM standards being used to evaluate the condition of new fuel oil are:

1. By sampling new fuel in accordance with ASTM D4057 prior to addition to storage tanks and:
2. By verifying in accordance with the tests specified in ASTM D975-81 prior to addition to the storage tanks that the sample has:
  - a) An API Gravity of within 0.3 degrees at 60 F or a specific gravity of within 0.0016 at 60/60 F, when compared to the supplier's certificate or an absolute specific gravity at 60/60 F or greater than or equal to 0.83 but less than or equal to 0.89 or an API gravity of greater than or equal to 27 degrees but less than or equal to 39 degrees;
  - b) A kinematic viscosity at 40 C of greater than or equal to 1.9 centistokes, but less than or equal to 4.1 centistokes, if gravity was not determined by comparison with the supplier's certification;
  - c) A flash point equal to or greater than 125 F; and
  - d) A water and sediment content of less than or equal to 0.05% when tested in accordance with ASTM D1796-83.

Failure to meet any of the above limits is cause for rejecting the new fuel oil, but does not represent a failure to meet the Limiting Condition for Operation of Technical Specification 3.8.1.1, since the new fuel oil has not been added to the diesel fuel oil storage tanks.

Within 30 days following the initial new fuel oil sample, the fuel oil is analyzed to establish that the other properties specified in Table 1 of ASTM D975-81 are met when tested in accordance with ASTM D975-81 except that the analysis for sulfur may be performed in accordance with ASTM D1552-79, ASTM D2622-82 or ASTM D4294-90. An exception to ASTM D129, which is specified in ASTM D975-81, has been taken. ASTM D129 uses a Barium precipitation method for the determination of sulfate after oxidation has occurred. The use of any wet lab sulfate analysis is acceptable since the determination is made in the aqueous rinse water for the oxidation process. In the event the correct fuel oil properties are not met, ACTION g provides an additional 30 days from the time that it is determined that the correct fuel oil properties are not met to meet the Diesel Fuel Oil Testing Program limits. The additional 30 day period is acceptable because the fuel oil properties of interest, even if they are not within limits, would not have an immediate effect on emergency diesel generator operation. The diesel fuel oil surveillance in accordance with the Diesel Fuel Oil Testing Program will ensure the availability of high quality diesel fuel oil for the emergency diesel generators.

At least once every 31 days, a sample of fuel oil is obtained from the storage tanks in accordance with ASTM D2276-78. The particulate contamination is verified to be less than 10 mg/liter when checked based on ASTM D2276-78, method A. The filter size for the determination of particulate contamination will be 3.0 micron nominal instead of 0.8 micron nominal as specified by ASTM D2276-78, Method A. The filtered amount of diesel fuel will be approximately one liter when possible. Also it is acceptable to obtain a field sample for subsequent laboratory testing in lieu of field testing.

Fuel oil degradation during long term storage shows up as an increase in particulate, due mostly to oxidation. The presence of particulate does not mean the fuel oil will not burn properly in a diesel engine. The particulate can cause fouling of filters and fuel oil injection equipment which can cause engine failure.

The frequency for performing surveillance on stored fuel oil is based on stored fuel oil degradation trends which indicate that particulate concentration is unlikely to change significantly between surveillances.

ADMINISTRATIVE CONTROLS

PROCEDURES AND PROGRAMS (Continued)

f. Radiological Environmental Monitoring Program (Continued)

- 3) Participation in a Interlaboratory Comparison Program to ensure that independent checks on the precision and accuracy of the measurements of radioactive materials in environmental sample matrices are performed as part of the quality assurance program for environmental monitoring.

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6.8.5 The following programs, relocated from the Technical Specifications to FSAR Chapter 16, shall be implemented and maintained:

a. Explosive Gas and Storage Tank Radioactivity Monitoring Program

This program provides controls for potentially explosive gas mixtures contained in the WASTE GAS HOLDUP SYSTEM, the quantity of radioactivity contained in gas storage tanks, and the quantity of radioactivity contained in unprotected outdoor liquid storage tanks.

The program shall include:

1. The limits for concentrations of hydrogen and oxygen in the WASTE GAS HOLDUP SYSTEM and a surveillance program to ensure the limits are maintained.
2. A surveillance program to ensure that the quantity of radioactivity contained in each gas storage tank is less than the amount that would result in a whole body exposure of  $\geq 0.5$  rem to a MEMBER OF THE PUBLIC at the nearest SITE BOUNDARY in the event of an uncontrolled release of the tanks' contents, consistent with Branch Technical Position ETSB 11-5, "Postulated Radioactive Releases due to Waste Gas System Leak or Failure," in NUREG-0800, July 1981.
3. A surveillance program to ensure that the quantity of radioactivity contained in the following outdoor liquid radwaste tanks, that are not surrounded by liners, dikes, or walls capable of holding the tanks' contents and that do not have tank overflows and surrounding area drains connected to the liquid radwaste system, is less than the amount that would result in concentrations less than the limits of 10 CFR Part 20.1 -20.602, Appendix B (redesignated at 56FR23391, May 21, 1991) at the nearest potable water supply and the nearest surface water supply in an UNRESTRICTED AREA, in the event of an uncontrolled release of the tanks' contents:
  - a. Reactor Makeup Water Storage Tank,
  - b. Refueling Water Storage Tank,
  - c. Condensate Storage Tank, and
  - d. Outside temporary tanks, excluding demineralizer vessels and the liner being used to solidify radioactive waste.

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g. Diesel Fuel Oil Testing Program

A diesel fuel oil testing program to implement required testing of both new fuel oil and stored fuel oil. The program shall include sampling and testing requirements, and acceptance criteria, in accordance with the applicable ASTM Standards. The purpose of the program is to establish the following:

1. Acceptability of new fuel oil for use prior to addition to storage tanks by determining that the fuel oil has:
  - a. an API gravity or an absolute specific gravity within limits,
  - b. a flash point within limits for ASTM 2D fuel oil,
  - c. a kinematic viscosity within limits for ASTM 2D fuel oil,
  - d. a water and sediment content within the limits for ASTM 2D fuel oil;
2. Other properties for ASTM 2D fuel oil are within limits within 30 days following sampling and addition of new fuel oil to storage tanks;
3. Total particulate concentration of the stored fuel oil is < 10 mg/liter when tested every 31 days based on applicable ASTM Standards; and

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h. Emergency Diesel Generator Reliability Program

An emergency diesel generator reliability program that establishes the requirements and guidelines for emergency diesel generator reliability, availability, and monitoring. The program shall include the following:

1. Emergency diesel generator reliability performance goals (target reliability) based upon the station blackout coping assessment. Target reliability goal monitoring is accomplished through monitoring methods that are based upon those described in Appendix D of NUMARC 87-00,
2. Measures to ensure detailed root cause analysis of emergency diesel generator failures is performed and effective corrective actions are taken in response to failures,
3. Implementation of an emergency diesel generator preventive maintenance program that is consistent with the Maintenance Rule, and
4. Monitoring of emergency diesel generator availability and performance parameters to ensure the target reliability is met or exceeded.

## ELECTRICAL POWER SYSTEMS

### BASES

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#### DIESEL FUEL OIL TESTING PROGRAM (Continued)

*in accordance with*

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  - b. a flash point within limits for ASTM 2D fuel oil,
  - c. a kinematic viscosity within limits for ASTM 2D fuel oil,
  - d. a water and sediment content within the limits for ASTM 2D fuel oil;
2. Other properties for ASTM 2D fuel oil are within limits within 30 days following sampling and addition of new fuel oil to storage tanks;
3. Total particulate concentration of the stored fuel oil is  $< 10$  mg/liter when tested every 31 days ~~in accordance with the applicable~~ ASTM Standards; and  
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