

Mr. Guy R. Horn
Vice-President, Nuclear
Nebraska Public Power District
P. O. Box 499
Columbus, NE 68602-0499

April 29, 1996

SUBJECT: COOPER NUCLEAR STATION - AMENDMENT NO. 175 TO FACILITY
OPERATING LICENSE NO. DPR-46 (TAC NO. M92309)

Dear Mr. Horn:

The Commission has issued the enclosed Amendment No. 175 to Facility Operating License No. DPR-46 for the Cooper Nuclear Station. The amendment consists of changes to the Technical Specifications (TSs) in response to your application dated May 5, 1995, as supplemented by letters dated July 14, 1995, and March 5, 1996.

The amendment changes the TSs to 1) verify that the redundant diesel generator is operable upon the loss of one diesel generator, and implement provisions to verify that the operable diesel generator does not have a common cause failure; 2) incorporate provisions to allow a modified start for the diesel generators; and 3) remove the requirement that the reactor power level be reduced to 25% of rated power upon loss of both diesel generator units or both incoming power sources (start-up and emergency transformers). In addition, the period of time allowed for continued reactor operation with both diesels inoperable has been reduced from 24 to two hours.

A copy of our related Safety Evaluation is also enclosed. A Notice of Issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,

ORIGINAL SIGNED BY:
David L. Wigginton, Senior Project Manager
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket No. 50-298

Enclosures: 1. Amendment No. 175 to
License No. DPR-46
2. Safety Evaluation

cc w/encls: See next page

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OFC	LA/PD4-1	PM/PD4-1	OGC
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

April 29, 1996

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Vice-President, Nuclear
Nebraska Public Power District
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Sincerely,

A handwritten signature in dark ink, appearing to read "D. Wigginton".

David L. Wigginton, Senior Project Manager
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket No. 50-298

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License No. DPR-46
2. Safety Evaluation

cc w/encs: See next page

Mr. Guy R. Horn
Nebraska Public Power Company

Cooper Nuclear Station

cc:

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

NEBRASKA PUBLIC POWER DISTRICT
DOCKET NO. 50-298
COOPER NUCLEAR STATION
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 175
License No. DPR-46

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Nebraska Public Power District (the licensee) dated May 5, 1995, as supplemented by letters dated July 14, 1995, and March 5, 1996, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

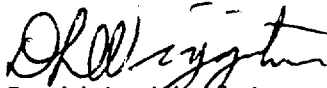
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Facility Operating License No. DPR-46 is hereby amended to read as follows:

2. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 175, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. The license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



David L. Wigginton, Senior Project Manager
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of Issuance: April 29, 1996

ATTACHMENT TO LICENSE AMENDMENT NO. 175

FACILITY OPERATING LICENSE NO. DPR-46

DOCKET NO. 50-298

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change.

REMOVE PAGES

120
121
128
131
192
193
193a
199
200
201
202

INSERT PAGES

120
121
128
131
192
193
193a
199
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202

LIMITING CONDITIONS FOR OPERATION

3.5.E (cont'd)

2. From and after the date that one valve in the Automatic Depressurization System is made or found to be inoperable for any reason, continued reactor operation is permissible only during the succeeding seven days unless such valve is sooner made operable, provided that during such seven days the HPCI System is operable.
3. With the surveillance requirements of 4.6.D.5 not performed at the required intervals due to reactor shutdown, a reactor startup may be conducted provided the appropriate surveillance is performed within 12 hours of achieving 113 psig reactor steam pressure.
4. If the requirements of 3.5.E.1 or 3.5.E.2 cannot be met, an orderly shutdown shall be initiated and the reactor pressure shall be reduced to at least 113 psig within 24 hours.

F. Minimum Low Pressure Cooling and Diesel Generator Availability

1. During any period when one diesel generator is inoperable, continued reactor operation is permissible only during the succeeding seven days unless such diesel generator is sooner made operable, provided that the operable diesel generator and its associated LPCI, Core Spray, and RHR Service Water subsystems are operable, the requirements of 4.5.F.1 and the remaining requirements of 3.9.A.1 are met. If these requirements cannot be met, the requirements of 3.5.F.2 shall be met.

SURVEILLANCE REQUIREMENTS

4.5.E (cont'd)

2. When it is determined that one valve of the ADS is inoperable, the ADS actuation logic for the other ADS valves shall be demonstrated to be operable immediately. In addition, the HPCI System shall be verified to be operable immediately.

F. Minimum Low Pressure Cooling and Diesel Generator Availability

1. When it is determined that one diesel generator is inoperable, the following requirements shall be met.
 - a. Immediately and daily thereafter, the redundant diesel generator shall be verified to be OPERABLE.
 - b. Immediately and daily thereafter, the LPCI, Core Spray, and RHR Service Water subsystems associated with the OPERABLE diesel generator shall be verified to be operable.
 - c. Within 24 hours determine OPERABLE diesel generator is not inoperable due to common cause failure, or perform Surveillance 4.9.A.2.a.1.
 - d. Within 72 hours and every 72 hours thereafter, the OPERABLE diesel generator shall be demonstrated to be OPERABLE if the inoperable diesel generator is not sooner declared OPERABLE.

LIMITING CONDITIONS FOR OPERATION

3.5.F (cont'd.)

2. During any period when both diesel generators are inoperable, continued reactor operation is permissible only during the succeeding 2 hours unless one diesel generator is sooner made operable, provided that both LPCI subsystems, both Core Spray subsystems, and both RHR Service Water subsystems are operable and the remaining requirements of 3.9.A.1 are met. If this requirement cannot be met, an orderly shutdown shall be initiated and the reactor placed in the hot standby condition within 12 hours, and in the cold shutdown condition within 36 hours.
3. Any combination of inoperable components in the LPCI, RHR Service Water, and Core Spray systems shall not defeat the capability of the remaining operable components to fulfill the cooling functions.
4. When irradiated fuel is in the reactor vessel and the reactor is in the Cold Shutdown Condition, both core spray subsystems, both LPCI subsystems, and both RHR Service Water subsystems may be inoperable, provided no work is being done which has the potential for draining the reactor vessel. Refueling requirements are as specified in Specification 3.10.F.
5. With irradiated fuel in the reactor vessel, one control rod drive housing may be open while the suppression chamber is completely drained provided that:
 - a. The reactor vessel head is removed.
 - b. The spent fuel pool gates are open and the fuel pool water level is maintained at a level \geq 33 feet.
 - c. The condensate transfer system is operable and a minimum of 230,000 gallons of water is in the condensate storage tank.

SURVEILLANCE REQUIREMENTS

4.5.F (cont'd.)

3.5 BASES (cont'd)

of service. Specification 3.5.F.4 provides that should this occur, no work will be performed on the primary system which could lead to draining the vessel. This work would include work on certain control rod drive components and recirculation system. Thus, the specification precludes the events which could require core cooling. Specification 3.5.F.5 recognizes that, concurrent with control rod drive maintenance during the refueling outage, it may be necessary to drain the suppression chamber for maintenance or for the inspection required by Specification 4.7.A.2.h. In this case, if excessive control rod housing leakage occurred, three levels of protection against loss of core cooling would exist. First, a special flange would be used to stop the leak. Second, sufficient inventory of water is maintained to provide, under worst case leak conditions, approximately 60 minutes of core cooling while attempts to secure the leak are made. This inventory includes water in the reactor well, spent fuel pool, and condensate storage tank. If a leak should occur, manually operated valves in the condensate transfer system can be opened to supply either the Core Spray System or the spent fuel pool. Third, sufficient inventory of water is maintained to permit the water which has drained from the vessel to fill the torus to a level above the Core Spray and LPCI suction strainers. These systems could then recycle the water to the vessel. Since the system cannot be pressurized during refueling, the potential need for core flooding only exists and the specified combination of the Core Spray or the LPCI subsystems can provide this.

The remaining requirements of 3.9.A.1 ensures that highly reliable and diverse power sources remain with one diesel generator inoperable. It is necessary to verify that the required off-site sources are available and capable of supplying power to the emergency buses, and that loss of voltage and undervoltage relay circuits associated with the emergency buses are operable.

For a detailed explanation of the 4.5.F.1 requirements see the BASES Section 4.5 on page 131 of these Technical Specifications.

This specification also provides for the highly unlikely case that both diesel generators are found to be inoperable. With two Diesel Generators (DGs) inoperable, there are no remaining standby AC sources. Thus, with an assumed loss of offsite electrical power, there are no standby AC sources available to power the minimum required ESF functions. Since offsite electrical power is the only source of AC power for the majority of ESF equipment at this level of degradation, the risk associated with continued operation for a very short time could be less than that associated with an immediate controlled shutdown. Since any inadvertent unit generator trip could result in a total loss of offsite AC power, however, the time allowed for continued operation is severely restricted. The intent here is to avoid the risk associated with an immediate controlled shutdown and to minimize the risk associated with this level of degradation.

According to Regulatory Guide 1.93, with both DGs inoperable, operation may continue for a period that should not exceed 2 hours.

If the Diesel Generators cannot be restored to OPERABLE status within the 2 hour completion time, the unit must be brought to a MODE in which the LCO does not apply. To achieve this status, the unit must be in the HOT STANDBY CONDITION within 12 hours, and in the COLD CONDITION within 36 hours. The allowed completion times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems. This will be accomplished while the two off-site sources of power required by Specification 3.9.A.1 are available.

G. Maintenance of Filled Discharge Pipe

If the discharge piping of the Core Spray, LPCI, HPCI, and RCIC systems are not filled, a water hammer can develop in this piping when the pump and/or pumps are started. If a water hammer were to occur at the time at which the system were required, the system would still perform its design functions. However, to minimize damage to the discharge piping and to ensure added margin in the operation of these systems, this Technical Specification requires the discharge lines to be filled whenever the system is in an operable condition.

4.5 BASES

Core and Containment Cooling Systems Surveillance Frequencies

The testing intervals for the core and containment cooling systems are based on industry practice, quantitative reliability analysis, judgement and practicality. The core cooling systems have not been designed to be fully testable during operation. For example, in the case of the HPCI System, automatic initiation during power operation would result in pumping cold water into the reactor vessel, which is not desirable. Complete ADS testing during power operation causes an undesirable loss-of-coolant inventory. To increase the availability of the core and containment cooling systems, the components which make up the system; i.e., instrumentation, pumps, valves, etc., are tested frequently. The pumps and motor operated injection valves are also tested each month to assure their operability. A simulated automatic actuation test once each cycle combined with frequent tests of the pumps and injection valves is deemed to be adequate testing of these systems.

When components and subsystems are out-of-service, overall core and containment cooling reliability is maintained by verifying the operability of the remaining equipment. For routine out-of-service periods caused by preventative maintenance, etc., the operability of other systems and components will be verified as given in the Technical Specifications. However, if a failure or design deficiency caused by outage, then a demonstration of operability may be needed to assure that a generic problem does not exist. For example, if an out-of-service period were caused by failure of a pump to deliver rated capacity due to a design deficiency, the other pumps of this type might be subjected to a flow rate test.

Verification of operability consists of verifying that the surveillance is current, and that other available information does not indicate inoperability.

The requirements of 4.5.F.1, assure that adequate core cooling equipment associated with the OPERABLE diesel generator is available. This requirement provides confidence that diesel generator inoperabilities are investigated for common cause failures, regardless of how long the diesel generator inoperability exists.

The requirements of 4.5.F.1, provides an allowance to avoid unnecessary testing of OPERABLE diesel generators. If it can be determined that the cause of the inoperable diesel generator does not exist on the OPERABLE diesel generator, then Surveillance Requirement 4.9.A.2.a.1, does not have to be performed. If the cause of inoperability exists on the other diesel generator, they are both declared inoperable and LCO 3.5.F.2 is entered. Once the failure is repaired, a common cause failure no longer exists, the required action of 3.5.F.2 is satisfied. If the cause of the initial inoperable diesel generator cannot be confirmed not to exist on the OPERABLE diesel generator, performance of Surveillance Requirement 4.9.A.2.a.1 suffices to provide assurance of continued OPERABILITY of that diesel generator.

The completion time of 24 hours for common cause is intended to allow the operator time to evaluate any common failure failures.

The LCO completion times of 7 days for one inoperable diesel generator, 72 hours for demonstrating the redundant diesel generator, and 24 hours for two inoperable diesel generators, begins on the discovery (declaration) that an inoperable diesel generator(s) exists. This information is provided to ensure that consistency among operators is utilized concerning the entrance and completion of Surveillance Requirement 4.5.F.1.

Demonstration of the diesel generator to be OPERABLE can be achieved by the performance of Surveillance Requirement 4.9.A.2.a.1, or 4.9.A.2.a.2.

LIMITING CONDITIONS FOR OPERATIONSURVEILLANCE REQUIREMENTS

3.9.B

B. Operation with Inoperable Equipment

Whenever the reactor is in Run Mode or Startup Mode with the reactor not in a Cold Condition, the availability of electric power shall be as specified in 3.9.A.1, except as specified in 3.9.B.1.

1. Incoming Power

- a. From and after the date incoming power is not available from a startup or emergency transformer, continued reactor operation is permissible under this condition for seven days. During this period, the two diesel generators and associated critical buses must be verified to be operable.
- b. From and after the date that incoming power is not available from both start-up and emergency transformers (i.e., both failed), continued operation is permissible, only during the succeeding 24 hours unless one power source is sooner made operable, provided the two diesel generators and associated critical buses are verified to be operable, and all core and containment cooling systems are operable. If this requirement cannot be met, an orderly shutdown shall be initiated and the reactor placed in the cold shutdown condition within 24 hours.

4.9.A. (cont'd)

LIMITING CONDITIONS FOR OPERATION

3.9.B (cont'd.)

2. Diesel Generators

- a. From and after the date that one of the diesel generators or an associated critical bus is made or found to be inoperable for any reason, continued reactor operation is permissible in accordance with Specification 3.5.F.1 if the remaining requirements of Specification 3.9.A.1 are satisfied.
- b. From and after the date that both diesel generators are made or found to be inoperable for any reason, continued reactor operation is permissible only during the succeeding 2 hours in accordance with Specification 3.5.F.2 if the remaining requirements of Specification 3.9.A.1 are satisfied.
- c. From and after the date that one of the diesel generators or associated critical buses and either the emergency or startup transformer power source are made or found to be inoperable for any reason, continued reactor operation is permissible only during the succeeding 24 hours unless such diesel generator or power source is sooner made operable, provided the other off-site source, startup transformer or emergency transformer is available and capable of automatically supplying power to the 4160V critical buses.
- d. From and after the date that the diesel fuel oil particulate concentration level defined in Surveillance Requirement 4.9.A.2.d cannot be met, restore the diesel fuel oil total particulate concentration to within the acceptable limits within 7 days, or declare the associated Diesel Generator inoperable.
- e. From and after the date that the new diesel fuel oil properties defined in Surveillance Requirement 4.9.A.2.e.2 cannot be met, restore the stored diesel fuel oil properties to within acceptable limits within 30 days, or declare the associated Diesel Generator inoperable.

SURVEILLANCE REQUIREMENTS

4.9.A (cont'd.)

2. Diesel Generators

- a. 1. Each diesel generator shall be started manually and loaded to not less than 50% of rated load for no less than 2 hours once each month to demonstrate operational readiness. A modified DG start involving idling and gradual acceleration to synchronous speed may be used as recommended by the manufacturer. This Surveillance Requirement may be preceded with an engine prelube period prior to starting and followed by a warmup period prior to loading.

When modified start procedures are not used, the time, voltage, and frequency requirements of 4.9.A.2.a.2 must be met. The performance of Surveillance Requirement 4.9.A.2.a.2 satisfies this Surveillance Requirement.

During this monthly generator test the diesel generator starting air compressor shall be checked for operation and its ability to recharge air receivers. The operation of the fuel oil transfer pumps and fuel oil day tank level switches shall be demonstrated.

2. Each diesel generator shall be started manually and loaded to not less than 50% of rated load for no less than 2 hours every six months to demonstrate operational readiness.

During this generator test the diesel generator starting air compressor shall be checked for operation and its ability to recharge air receivers. The operation of the fuel oil transfer pumps and fuel oil day tank level switches shall be demonstrated and the diesel starting time to reach rated voltage and frequency shall be logged. This Surveillance Requirement may be preceded with an engine prelube period prior to starting. The performance of this Surveillance Requirement satisfies the requirements 4.9.A.2.a.1.

LIMITING CONDITIONS FOR OPERATION

3.9.B (cont'd.)

SURVEILLANCE REQUIREMENTS

4.9.A (cont'd.)

- b. Once every 18 months the condition under which the diesel generator is required will be simulated and a test conducted to demonstrate that it will start and accept the emergency load within the specified time sequence. The results shall be logged.
- c. Once a month the quantity of diesel fuel available shall be logged.
- d. At least once per month the particulate concentration level of the Diesel Fuel Oil Storage Tanks shall be determined in accordance with ASTM-D2276-1989, Method A. The total particulate concentration in the diesel fuel oil storage tanks, shall have a limit of less than 10 mg/liter when checked in accordance with ASTM-D2276-1989, Method A.
- e. New fuel oil sampling will be performed in accordance with ASTM-D4057-1989 within 30 days upon delivery. Fuel oil testing will be performed in accordance with the following:
 - 1. By verifying in accordance with the tests specified in ASTM-D975-1989a 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,

3.9 BASES

The general objective of this Specification is to assure an adequate source of electrical power to operate the auxiliaries during plant operation, to operate facilities to cool and lubricate the plant during shutdown and to operate the engineered safeguards following the accident. There are three sources of ac electrical energy available; namely, the startup transformer, the emergency transformer and two diesel generators. The dc supply is required for switch gear and engineered safety feature systems. This supply consists of two 125V DC and two 250V DC batteries and their related chargers. Specification 3.9.A states the required availability of ac and dc power; i.e., active off-site ac sources and the required amount of on-site ac and dc sources.

Auxiliary power for CNS is supplied from the startup transformer and the normal transformer. Both of these transformers are sized to carry 100% of the station auxiliary load. The emergency transformer is about one third the size of these two transformers and is equal in size to both emergency diesel generators.

The startup transformer and the emergency transformers are the offsite power sources. Their voltage is monitored by undervoltage relays which provide low voltage protection for the emergency buses. Whenever the voltage setpoint and time delay limit for the undervoltage relays have been exceeded, the emergency buses are automatically disconnected from the offsite power source.

If the startup or emergency transformer is lost, the unit can continue to operate since the unit auxiliary transformer is in service, and the emergency or startup transformer and the diesels are available.

If both the startup and emergency transformers become inoperable, the power level must be reduced to a value where by the unit can safely reject the load and continue to supply auxiliary electric power to the station.

In the normal mode of operation, the startup and emergency transformers are energized and two diesel generators are operable. One diesel generator may be allowed out of service based on the availability of power from the startup transformer and the fact that one diesel generator carries sufficient engineered safeguards equipment to cover all line breaks. With the startup transformer and one diesel generator out of service, the off site transmission line corresponding to the emergency transformer must be available. Upon the loss of one on-site and one off-site power source, power would be available from the other immediate off-site power source and the two operable on-site diesels to carry sufficient engineered safeguards equipment to cover all breaks. In addition to these two power sources, removal of the Isolated Phase Bus "quick" disconnect links would allow backfeed of power through the main transformer to the unit auxiliary transformer and provide power to carry the full station auxiliary load. The time required to perform this operation is comparable to the time the reactor could remain on RCIC operation before controlled depressurization need be initiated.

The condition defined in Specification 3.9.B.2.d is entered as a result of failure to meet the acceptance criterion for particulates. Normally, trending of particulate levels allows sufficient time to correct high particulate levels prior to reaching the limit of acceptability. Poor sampling procedures (bottom sampling), contaminated sampling equipment, and errors in laboratory analysis can produce failures that do not follow a trend. Since the presence of particulate does not mean failure of the fuel to burn properly in the diesel engine, the particulate concentration is unlikely to change significantly between Surveillance Frequency intervals, and proper engine performance has been recently demonstrated (within 1 month), it is prudent to allow a seven day period for corrective action prior to declaring the associated DG inoperable. The 7 day completion time allows for further evaluation, resampling, and re-analysis of the DG fuel oil.

3.9 BASES (cont'd)

The condition defined in Specification 3.9.B.2.e is entered as a result of failure to meet the acceptance criteria for new diesel fuel properties. A period of 30 days is allowed for restoring the stored diesel fuel oil properties. This period provides sufficient time to test the stored fuel oil to determine that the new fuel oil, when mixed with previously stored fuel oil, remains acceptable, or to restore the stored fuel oil properties. This restoration may involve feed and bleed procedures, filtering, or a combination of these procedures. Even if a DG start and load was required during this time interval and the fuel properties were outside the limits, there is high likelihood that the DG would still be capable of performing its intended function.

The D.C. Power Systems allowable out-of-service time is based on NRC Regulatory Guide 1.93, "Availability of Electrical Power Sources." The two-hour limit to restore battery operability minimizes reactor operation while in a degraded condition.

4.9 BASES

The monthly test of the diesel generator is conducted to check for equipment failures and deterioration. Testing is conducted up to equilibrium operating conditions to demonstrate proper operation at these conditions. The diesel generator will be manually started, synchronized and connected to the bus and load picked up. The diesel generator should be loaded to at least 50% of rated load to prevent fouling of the engine. It is expected that the diesel generator will be run for at least two hours. Diesel generator experience at other generating stations indicates that the testing frequency is adequate and provides a high reliability of operation should the system be required.

Surveillance Requirements 4.9.A.2.a.1 and 4.9.A.2.a.2 help to ensure the availability of the standby electrical power supply to mitigate Design Basis Accidents and transients and maintain the unit in a safe shutdown condition. Testing is conducted up to equilibrium operating conditions to demonstrate proper operation at these conditions. The diesel generator will be manually started, synchronized and connected to the bus and load picked up. The diesel generator should be loaded to at least 50% of rated load to prevent fouling of the engine. It is expected that the diesel generator will be run for at least two hours.

To minimize the wear on moving parts that do not get lubricated when the engine is not running, Surveillance Requirements 4.9.A.2.a.1 and 4.9.A.2.a.2 allows for a engine prelube period. In addition, 4.9.A.2.a.1 allows a warmup period prior to loading as an additional measure to minimize wear.

For the purposes of this testing, the DGs are started from standby conditions. Standby conditions for a DG mean that the diesel engine coolant and oil are being continuously circulated and temperature is being maintained consistent with manufacturer recommendations.

In order to reduce the stress and wear on the diesel engines, some manufacturers recommend a modified start in which the starting speed of DGs is limited, warmup is limited to this lower speed, and the DGs are gradually accelerated to synchronous speed prior to loading. This is the intent of 4.9.A.2.a.1.

Each diesel generator has two air compressors and two air receivers for starting. It is expected that the air compressors will run only infrequently. During the monthly check of the diesel generator, each receiver in each set of receivers will be drawn down below the point at which the corresponding compressor automatically starts to check operation and the ability of the compressors to recharge the receivers.

Diesel fuel oil degradation during long term storage shows up as an increase in particulate, mostly due to oxidation. The presence of particulate does not mean that the diesel fuel oil will not burn properly in the diesel engine. The particulate can

4.9 BASES (cont'd)

cause fouling of filters and fuel oil injection equipment, however, which can cause engine failure. Particulate concentrations shall be determined in accordance with ASTM-D2276-1989, Method A. The frequency of this test takes into consideration fuel oil degradation trends that indicate that particulate concentration is unlikely to change significantly between frequency intervals.

The tests for diesel fuel oil properties defined in Surveillance Requirement (SR) 4.9.A.2.e.1 are a means of determining whether new diesel 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 the test defined in SR 4.9.A.2.e.1 are within acceptable limits, the diesel fuel oil may be added to the storage tanks without concern for contaminating the entire volume of diesel fuel oil in the storage tanks. These tests are to be conducted prior to adding the new diesel fuel oil to the storage tanks, but in no case is the time between receipt of new diesel fuel oil and conducting the tests to exceed one month.

Within one month following the initial new diesel fuel oil sample (SR 4.9.A.2.e.1), the new diesel fuel oil is analyzed to establish that the remaining fuel oil properties defined in SR 4.9.A.2.e.2 are met when tested in accordance with ASTM-D975-1989a. The one month period is acceptable because the diesel fuel oil properties of interest (SR 4.9.A.2.e.2), even if they were not within stated limits, would not have an immediate effect on Diesel Generator operation. This surveillance ensures the continued availability of high quality diesel fuel oil for the Diesel Generators.

Microbiological fouling is a major cause of diesel fuel oil degradation. There are numerous bacteria that can grow in diesel fuel oil storage tanks and cause fouling, but all must have a water environment in order to survive. Frequent checking for and removal of accumulated water minimizes fouling and provides data regarding the water tight integrity of the fuel oil system. This is the most effective means of controlling microbiological fouling. In addition, it eliminates the potential for water entrainment in the fuel oil during DG operation. Water may come from any of several sources, including condensation, ground water, rain water, contaminated fuel oil, and from breakdown of the fuel oil bacteria. This surveillance requirement is for preventive maintenance. The presence of water does not necessarily represent failure of this SR, provided the accumulated water is removed. If the presence of water is detected by Surveillance Requirement 4.9.A.2.f, the removal of water to the extent practical from the diesel fuel oil day tanks must be accomplished within two days of the discovery of the water. If the presence of water detected by Surveillance Requirement 4.9.A.2.g is greater than a nominal value of four inches from the bottom of the diesel fuel oil storage tanks, then a maximum of seven days is allowed for removal of the water. The nominal four inch value is a function of the water that can be practically removed from the diesel fuel oil storage tanks.

The diesel generator fuel consumption rate at full load is approximately 275 gallons per hour. Thus, the monthly load test of the diesel generators will test the operation and the ability of the fuel oil transfer pumps to refill the day tank and will check the operation of these pumps from the emergency source.

The test of the diesel generator during the refueling outage will be more comprehensive in that it will functionally test the system; i.e., it will check diesel generator starting and closure of diesel generator breaker and sequencing of load on the diesel generator. The diesel generator will be started by simulation of a loss-of-coolant accident. In addition, an undervoltage condition will be imposed to simulate a loss of off-site power.

Periodic tests between refueling outages verify the ability of the diesel generator to run at full load and the core and containment cooling pumps to deliver full flow. Periodic testing of the various components, plus a functional test once-a-cycle, is sufficient to maintain adequate reliability.

4.9 BASES (cont'd)

When it is determined that some auxiliary electrical equipment is out of service, the increased surveillance required in Section 4.5.F is deemed adequate to provide assurance that the remaining equipment will be operable.

The surveillance requirements for demonstrating the OPERABILITY of the unit batteries are in accordance with the recommendations of NRC Regulatory Guide 1.129, "Maintenance Testing and Replacement of Large Lead Storage Batteries for Nuclear PowerPlants," dated February 1978 and IEEE Std 450-1987, "IEEE Recommended Practice for Maintenance, Testing, and Replacement of Large Lead Storage Batteries for Generating Stations and Substations."

Once each operating cycle, during shutdown, either a service test or performance discharge is performed on the 125 V and the 250 V batteries. The performance discharge test is performed in lieu of the service test when a battery shows signs of degradation. Degradation is indicated when battery capacity drops more than 10% of rated capacity from its average on previous performance tests, or is below 90% of the manufacturer's rating.

Replacement criteria for 125V and 250V station batteries is $\leq 80\%$ capacity factor and the maximum time for replacement should be one (1) year. This will assure that the remaining battery capacity is adequate to meet load requirements.

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 of the battery to handle high discharge rates and compares the battery capacity at that time with the rated capacity.

Due to the physical configuration of the CNS batteries, two different inter-cell connection resistance values are surveilled. Each division of the 125V and 250V batteries are configured into two racks, coupled with inter-rack connectors. Therefore, separate resistance values are provided for both the inter-cell (copper-bar type) and inter-rack (cable-type) connectors to demonstrate acceptability of battery connection resistance.

Table 3.9.1 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 ensure that their float voltage and specific gravity are characteristic of a charged cell with adequate capacity, and 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 3.9.1 is permitted for up to 7 days. During this 7-day period: (1) the allowable values 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 0.020 below the average specific gravity of all connected cells 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 2.10 volts, ensures the battery's capability to perform its design function.

The Reactor Protection System (RPS) is equipped with a seismically qualified, Class 1E power monitoring system. This system consists of eight Electrical Protection Assemblies (EPA) which isolate the power sources from the RPS if the input voltage and frequency are not within limits specified for safe system operation. Isolation of RPS power causes that RPS division to fail safe.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 175 TO FACILITY OPERATING LICENSE NO. DPR-46
NEBRASKA PUBLIC POWER DISTRICT
COOPER NUCLEAR STATION
DOCKET NO. 50-298

1.0 INTRODUCTION

By letter dated May 5, 1995, as supplemented by letters dated July 15, 1995, and March 5, 1996, Nebraska Public Power District (NPPD) (the licensee) requested a Technical Specifications (TSs) change for the Cooper Nuclear Station. The revision pertains to changes to the emergency diesel generator (EDG) action statements and surveillance requirements. After a preliminary review of the subject TS change, the staff contacted the licensee via a conference call on November 1, 1995, to discuss concerns regarding the wording of the subject amendment. By letter dated March 5, 1996, the licensee submitted minor changes to clarify the intent of the proposed change. This letter provided clarifying information that did not change the initial proposed no significant hazards consideration determination.

2.0 EVALUATION

The staff's evaluation of the licensee's proposed changes to the TS follows.

2.1 Technical Specification 3.5.F.1

The subject action statement addresses the limiting conditions for operation (LCO) applicable when one EDG becomes inoperable during power operation. The current statement reads as follows:

...and the requirements of 3.9.A.1 are met. If this requirement cannot be met, the requirements of 3.5.F.2 shall be met.

The following replaces the current statement:

...and the requirements of 4.5.F.1 and the remaining requirements of 3.9.A.1 are met. If these requirements cannot be met, the requirements of 3.5.F.2 shall be met.

The subject TS change specifies that the test requirements associated with Surveillance Requirement (SR) 4.5.F.1 will be met during the subject LCO. Therefore, the redundant EDG and associated subsystem components are operable immediately and daily thereafter upon declaration that one EDG becomes inoperable. The staff finds that the subject TS change is consistent with the Standardized Technical Specifications (STSS) and provides assurance that the

redundant EDG is operable if needed to perform its intended safety function. Therefore, the staff finds that the subject change is acceptable.

2.2 Technical Specification 3.5.F.2

The subject action statement addresses the LCO applicable when the two EDGs become inoperable during power operation. The proposed revision changes the allowable period from 24 hours to 2 hours.

The current statement reads as follows:

...and the reactor power level is reduced to 25% of rated power and the requirements of 3.9.A.1 are met.

The following replaces the current statement:

...and the remaining requirements of 3.9.A.1 are met.

The proposed revision also specifies that if this LCO cannot be met the reactor will be placed in the hot standby condition within 12 hours and in cold shutdown condition within 36 hours.

The requirement to reduce plant power to 25 percent of rated power upon the loss of two EDGs or when incoming power is not available from both the start-up and emergency transformers was established during the licensing process for Cooper Nuclear Station. The licensee contends that the requirement to reduce plant power to 25 percent of rated power forces the plant into an immediate transient. Instead of the plant power reduction, the subject change would permit the plant to remain at the existing power level for a 2-hour allowable outage period given the loss of the two EDGs.

According to the guidance for power operation outlined in Regulatory Guide (RG) 1.93, "Availability of Electric Power Sources," the decision for continued power operation should not be solely determined by a specific action statement in the TSs, rather it should be reviewed on each plant circumstances individually considering its risk factors. Therefore, the requirement for an immediate specified power level reduction during an LCO does not represent a condition necessary for safe power operation. The 2-hour allowable outage time (AOT) and the time to hot standby and cold shutdown conditions specified in the subject change is consistent with the STSs. Therefore, the staff finds that the subject TS change is acceptable.

2.3 Technical Specification 4.5.F.1

The licensee proposes to replace the existing surveillance requirement with one that addresses the new requirements separately for the EDG and for the Low Pressure Coolant Injection, Core Spray, and Residual Heat Removal Service Water subsystems. The new surveillance also adds a requirement that a determination must be made within 24 hours that the OPERABLE EDG is not inoperable due to a common cause failure or Surveillance 4.9.A.2.a.1 must be

performed. The licensee proposes to change the existing requirement such that the initial demonstration of EDG operability must be performed within 72 hours (vice immediately). The requirement that the demonstration of EDG operability be performed and every 72 hours thereafter is retained. The demonstration is to be performed if the inoperable EDG is not sooner declared operable.

The staff provided relaxation to EDG SRs by Generic Letter (GL) 93-05, "Line-Item Technical Specifications Improvements to Reduce Surveillance Requirements for Testing During Power Operation." In this letter, the staff recommended deletion of the following requirement: "If either diesel generator has not been successfully tested within the past 24 hours demonstrate its OPERABILITY by performing SRs 4.8.1.1.2.a.5 and 4.8.1.1.2.a.6 for each such diesel generator, separately, within 24 hours." In addition, the licensee proposes to perform SR 4.9.A.2.a.1 (equivalent to SR 4.8.1.1.2.a.5) within 24 hours if the EDG became inoperable due to any cause other than an independently testable component, testing, or preplanned preventative maintenance unless the absence of any potential common mode failure for the remaining EDG is demonstrated by the licensee.

GL 93-05 recommends that the operability of the remaining EDGs be demonstrated when one EDG becomes inoperable. EDG operability has to be demonstrated only if the EDG became inoperable due to any cause other than an independently testable component, testing, or preplanned preventative maintenance. Based on the above information, the staff finds that the subject TS change is consistent with STSs and the intent of GL 93-05, and is therefore acceptable.

2.4 Technical Specification 3.9.B.1

The licensee proposes to delete the following text in action statement 3.9.B.1.a:

At the end of this period, provided the second source of incoming power has not been made immediately available, the NRC must be notified of the event and the plan to restore this second source.

The word "demonstrated" is replaced by "verified" to assure the operability of the two diesel generators and associated critical buses.

The licensee also proposes to replace text in Action Statement 3.9.B.1.b. This text currently reads as follows:

...provided the two diesel generators and associated critical buses are demonstrated to be operable, all core and containment cooling systems are operable, reactor power level is reduced to 25% of the rated and NRC is notified within 24 hours of the situation, the precautions to be taken during the period and the plans for prompt restoration of incoming power.

The following replaces the current text:

...only during the succeeding 24 hours unless one power source is sooner made operable, provided the two diesel generators and associated critical buses are verified to be operable, and all core and containment cooling systems are operable. If this requirement cannot be met, an orderly shutdown shall be initiated and the reactor placed in the cold shutdown condition within 24 hours.

The licensee requirement to notify the NRC of the event and their plans to restore the inoperable component(s) is unnecessary due to the existence of immediate notification requirements 10 CFR 50.72.

Based upon the rationale discussed above for Specification 4.5.F.1, the loss of one offsite power source does not imply that the EDGs will be unable to perform their safety function. Verification of operability rather than demonstration via test engine starts is the more appropriate requirement for the subject LCO. The subject change is consistent with the intent of GL 84-15, "Proposed Staff Actions to Improve and Maintain Diesel Generator Reliability," to reduce the number of unnecessary fast engine starts, thereby increasing overall EDG reliability.

According to the guidance for power operation outlined in RG 1.93, the decision for continued power operation should not be solely determined by a specific action statement in the TSs; rather, it should be reviewed on each plant circumstances individually considering its risk factors. Therefore, the requirement for an immediate specified power level reduction during an LCO does not represent a condition necessary for safe power operation. Further, the 24-hour AOT specified in the subject change for Action Statement 3.9.B.1.b is consistent with the STSs.

Based on the above discussion, the staff finds that the subject TS change is acceptable.

2.5 Technical Specification 3.9.B.2

- The text in Action Statement 3.9.B.2.a currently reads as follows:

...Specification 3.5.F.1 if Specification 3.9.A.1 is satisfied.

The licensee proposes to replace the previous text with the following:

...Specification 3.5.F.1 if the remaining requirements of Specifications 3.9.A.1 are satisfied.

The text in Action Statement 3.9.B.2.b currently reads as follows:

...during the succeeding 24 hours in accordance with Specification 3.5.F.2 if Specification 3.9.A.1 is satisfied.

The licensee proposes to replace the previous text with the following:

...during the succeeding 2 hours in accordance with Specification 3.5.F.2 if the remaining requirements of Specifications 3.9.A.1 are satisfied.

The licensee proposes to specify a 24-hour period for the AOT when one EDG and one offsite power source is inoperable for Action Statement 3.9.B.2.c. In addition, the proposed change removes the requirement to notify the NRC of the licensee's plans for restoration of the inoperable components.

The licensee proposed change for Action Statements 3.9.B.2.a and 3.9.B.2.b represents editorial changes made to clarify that the remaining requirements of Specification 3.9.A.1, which refers to other vital equipment, must be met for continued reactor operation. Given that this change is administrative in nature, the staff finds that it is acceptable.

The STSs and RG 1.93 specifies 12 hours AOT for the loss of an offsite power source and an EDG, and 24 hours AOT for loss of two offsite power sources. The staff rationale for the 12 hour AOT, in the case of the loss of an offsite power source and an EDG, is based upon the nature of the loss (i.e., two diverse power sources) and that the capability of the on-site AC power system has been degraded during this LCO. This position was discussed with the licensee during a conference call held on November 1, 1995. However, the licensee contended that its original licensing basis specifies 24 hours as the AOT for the subject LCO. Given the licensee's position, the staff recommends approval of the above deviation to the STSs because this change represents an improvement to the original TSs which now has an unspecified AOT when an offsite power source and an EDG are inoperable.

The licensee requirement to notify the NRC of the event and their plans to restore the inoperable component(s) is unnecessary due to the existence of immediate notification requirements under 10 CFR 50.72.

Based on the above discussion, the staff finds that the subject TS change is acceptable.

2.6 Technical Specification 4.9.A.2.a

The licensee proposes to revise SR 4.9.A.2.a by splitting the TSs into two separate surveillance requirements for the EDGs.

SR 4.9.A.2.a.1 describes the monthly test requirements that specify a modified EDG start as recommended by the manufacturer. The modified EDG start procedures involve idling and gradual acceleration to synchronous speed that may be preceded by an engine prelube period prior to starting and a warmup period prior to loading. The proposed revision specifies that when the modified start procedures are not used the time, voltage, and frequency requirements of SR 4.9.A.2.a.2 must be met and the performance of

SR 4.9.A.2.a.2 satisfies SR 4.9.A.2.a.1. The proposed revision also deletes the requirement to log the EDG starting time to reach rated voltage and frequency parameters.

SR 4.9.A.2.a.2 describes the new 6-month testing requirement, which is identical to SR 4.9.A.2.a.1 except that the EDG start uses a fast start procedure where the time to reach rated voltage and frequency is logged during the test. The SR may be preceded by an engine prelube period prior to starting the EDG.

The licensee proposed the subject change in order to enhance the EDG reliability by incorporating test provisions to allow slow and gradual monthly EDG starts instead of the existing fast engine start requirements. In addition to an engine prelube period for both surveillance requirements and a warmup period prior to loading for SR 4.9.A.2.a.1, this change acts to reduce mechanical stress and wear on the diesel engine. The staff finds that the subject change is consistent with GL 84-15, and the guidance provided by the STSs. Therefore, the subject TS change is acceptable.

2.7 Changes to BASES Sections

The staff noted during the initial review that the following concerns regarding the wording for Bases Sections 3.5, 4.5 and 4.9 were noted:

1. Bases Section 3.5 included a statement which implied that an immediate plant shutdown may cause a power grid instability.
2. Bases Section 4.5 had a statement which implied that GL 84-15 specified 24 hours as a reasonable time to confirm that the operable EDG was not affected by the same problem as the inoperable EDG.
3. Discussion in Bases Section 4.9 caused some confusion regarding starting time requirements for SR 4.9.A.2.a.2.

After a conference call on November 1, 1995, the licensee submitted a revision by letter dated March 5, 1996, which addressed the concerns listed above.

2.7.1 3.5 Bases: Page 128

The licensee proposes to add the following text to Base Section 3.5.F:

The remaining requirements of 3.9.A.1 ensures that highly reliable and diverse power sources remain with one generator inoperable. It is necessary to verify that the required off-site sources are available and capable of supplying power to the emergency buses, and that loss of voltage and undervoltage relay circuits associated with the emergency buses are operable.

For a detailed explanation of the 4.5.F.1 requirements, see the BASES Section 4.5 on page 131 of these Technical Specifications.

(This specification...inoperable.) With two Diesel Generators (DGs) inoperable, there are no remaining standby AC sources. Thus, with an assumed loss of offsite electrical power, there are no standby AC sources available to power the minimum required ESF functions. Since offsite electrical power is the only source of AC power for majority of ESF equipment at this level of degradation, the risk associated with continued operation for a very short time could be less than that associated with an immediate controlled shutdown. However, since any inadvertent unit generator trip could also result in a total loss of offsite AC power, the time allowed for continued operation is severely restricted. The intent here is to avoid the risk associated with an immediate controlled shutdown and to minimize the risk associated with this level of degradation.

According to Regulatory [Guide] 1.93, with both DGs inoperable, operation may continue for a period that should not exceed 2 hours.

If the DGs cannot be restored to OPERABLE status within the 2 hour completion time, the unit must be brought to a MODE in which the LCO does not apply. To achieve this status, the unit must be in the HOT STANDBY CONDITION within 12 hours, and in the COLD CONDITION within 36 hours. The allowed completion times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner, and without challenging plant systems.

The proposed revision explains the requirements of Specification 3.9.A.1, which is referenced in Specification 3.5.F.1 and references the location of the explanation for SR 4.5.F.1 requirements. In addition, the licensee proposes to remove the following text:

The reduction of rated power to 25% will provide a very stable operating condition. The allowable repair time of 24 hours will provide an opportunity to repair the diesel and thereby prevent the necessity of taking the plant down through the less stable shutdown condition. If the necessary repairs cannot be made in the allowed 24 hours, the plant will be shutdown in an orderly fashion.

Except for the necessary typographical correction regarding "Regulatory" (should be "Regulatory Guide"), the subject TS change is administrative in nature clarifying Specification 3.9.A.1. The typographical error has been discussed with the licensee and that correction will be made concurrent with the implementation of the TS approved herein. Therefore, the staff finds that the change is acceptable.

2.7.2 4.5 Bases: Page 131

The licensee proposes to add the following text:

Verification of operability consists of verifying that the

surveillance is current, and that other available information does not indicate inoperability.

The requirements of 4.5.F.1 assure that adequate core cooling equipment associated with the OPERABLE diesel generator is available. This requirement provides confidence that diesel generator inoperabilities are investigated for common cause failures, regardless of how the diesel generator inoperability exists.

The requirements of 4.5.F.1, provides an allowance to avoid unnecessary testing of OPERABLE diesel generators. If it can be determined that the cause of the inoperable diesel generator does not exist on the OPERABLE diesel generator, then Surveillance Requirement 4.9.A.2.a.1, does not have to be performed. If the cause of inoperability exists on the other diesel generator, they are both declared inoperable and LCO 3.5.F.2 is entered. Once the failure is repaired, a common cause failure no longer exists, the required action of 3.5.F.2 is satisfied. If the cause of the initial inoperable diesel generator cannot be confirmed not to exist on the OPERABLE diesel generator, performance of Surveillance Requirement 4.9.A.2.a.1 suffices to provide assurance of continued OPERABILITY of that diesel generator.

The completion time of 24 hours for common cause is intended to allow the operator time to evaluate any common cause failures.

The LCO completion times of 7 days for one inoperable diesel generator, 72 hours for demonstrating the redundant diesel generator, and 2 hours for two inoperable diesel generators, begins on the discovery (declaration) that an inoperable diesel generator(s) exists. This information is provided to ensure that consistency among operators is utilized concerning the entrance and completion of Surveillance Requirement 4.5.F.1.

Demonstration of the diesel generator to be OPERABLE can be achieved by the performance of Surveillance Requirement 4.9.A.2.a.1 or 4.9.A.2.a.2.

The licensee proposed the subject change in order to clarify the requirements of SR 4.5.F.1. Given that the subject TS change is administrative in nature reflecting the proposed changes in SR 4.5.F.1, the staff finds that the change is acceptable.

2.7.3 Bases 3.9: Pages 199 and 200

The licensee proposes to revise 3.9 Bases section as follows:

- a. In Paragraph 6, Page 199, change "breakers" to "line breaks."

- b. In Paragraph 7, Page 199, change the referenced Specification 3.9.B.1.b.4 to 3.9.B.2.d.
- c. In Paragraph 1, Page 200, change the referenced Specification 3.9.B.1.b.5 to 3.9.B.2.e.

As stated above the subject change corrects previous editorial or grammatical errors in the BASES Section. Therefore, the proposed change is acceptable.

2.7.4 Bases 4.9: Page 200

The licensee proposes to add the following text:

Surveillance Requirements 4.9.A.2.a.1 and 4.9.A.2.a.2 help to ensure the availability of the standby electrical power supply to mitigate Design Basis Accidents and transients and maintain the unit in a safe shutdown condition. Testing is conducted up to equilibrium operating conditions to demonstrate proper operation at these conditions. The diesel generator will be manually started, synchronized and connected to the bus and load picked up. The diesel generator should be loaded to at least 50% of rated load to prevent fouling of the engine. It is expected that the diesel generator will be run for at least two hours.

To minimize the wear on moving parts that do not get lubricated when the engine is not running, Surveillance Requirements 4.9.A.2.a.1 and 4.9.A.2.a.2 allows for a engine prelube period. In addition, 4.9.A.2.a.1 allows a warmup period prior to loading as an additional measure to minimize wear.

For the purposes of this testing, the DGs are started from standby conditions. Standby conditions for a DG mean that the diesel engine coolant and oil are being continuously circulated and temperature is being maintained consistent with manufacturer recommendations.

In order to reduce the stress and wear on the diesel engines, the manufacturer recommends a modified start in which the starting speed of DGs is limited, warmup is limited to this lower speed, and the DGs are gradually accelerated to synchronous speed prior to loading. This is the intent of 4.9.A.2.a.1.

The licensee proposed the additional text in order to clarify the new Surveillance Requirements 4.9.A.2.a.1 and 4.9.A.2.a.2. Given that the subject TS change is administrative in nature, the staff finds that the change is acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Nebraska State official was notified of the proposed issuance of the amendment. The State official had no comment.

4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding (60 FR 49939). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR Section 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: R. Jenkins

Date: April 29, 1996