

Commonwealth Edison Company
LaSalle Generating Station
2601 North 21st Road
Marseilles, IL 61341-9757
Tel 815-357-6761



May 1, 2000

United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

LaSalle County Station, Units 1 and 2
Facility Operating License Nos. NPF-11 and NPF-18
NRC Docket Nos. 50-373 and 50-374

Subject: Application for Amendment to Appendix A, Technical Specifications, Section 3/4.8.1, "A.C. Sources – Operating"

- References:
- (1) Letter from B. R. Sylvia (Niagara Mohawk Power Corporation) to the U.S. NRC, "Application for Amendment to the Nine Mile Point Unit 2 Operating License NPF-69," dated October 11, 1994.
 - (2) Letter from D. S. Brinkman (U.S. NRC) to B. R. Sylvia (Niagara Mohawk Power Corporation), "Issuance of Amendment for Nine Mile Point Nuclear Station, Unit 2 (TAC No. M90677)," dated March 7, 1995.

In accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," Commonwealth Edison (ComEd) Company proposes changes to Appendix A, Technical Specifications (TS), to Facility Operating Licenses NPF-11 and NPF-18. Specifically, we propose to change TS Section 3/4.8.1, "A.C. Sources – Operating."

The proposed changes, for Units 1 and 2, to TS Section 3/4.8.1, will add a footnote to Surveillance Requirement (SR) 4.8.1.1.2.d.8 regarding the 24-hour functional test of the emergency diesel generators (EDGs). The proposed changes will permit functional testing of the EDGs to be performed during power operation. Additionally, associated changes to Bases Section 3/4.8.1 and 3/4.8.2, "A.C. Sources and Onsite Power Distribution Systems," are also proposed.

Aool

May 1, 2000
U.S. Nuclear Regulatory Commission
Page 2

The information supporting the proposed changes is subdivided as follows.

1. Attachment A gives a description and safety analysis of the proposed changes.
2. Attachment B includes the marked-up TS pages with the proposed changes indicated.
3. Attachment C describes our evaluation performed in accordance with 10 CFR 50.92(c), which provides information supporting a finding of no significant hazards consideration.
4. Attachment D provides information supporting an Environmental Assessment.
5. Attachment E includes the marked-up proposed changes to LaSalle County Station Improved TS Bases pages.

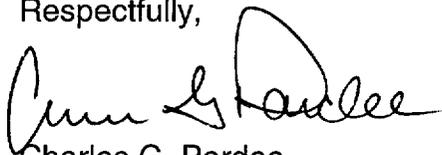
These proposed changes are similar to proposed changes by Niagara Mohawk Power Corporation for Nine Mile Point Nuclear Station, Unit 2, submitted to the NRC by Reference 1. The NRC approved the submittal in Reference 2.

The proposed changes have been reviewed by the LaSalle County Station Plant Operations Review Committee (PORC) and approved by the Nuclear Safety Review Board (NSRB) in accordance with the Quality Assurance Program.

ComEd is notifying the State of Illinois of this application for amendment by transmitting a copy of this letter and its attachments to the designated State Official.

Should you have any questions concerning this letter, please contact Mr. Frank A. Spangenberg, III, Regulatory Assurance Manager, at (815) 357-6761, extension 2383.

Respectfully,



Charles G. Pardee
Site Vice President
LaSalle County Station

May 1, 2000
U.S. Nuclear Regulatory Commission
Page 3

Attachments:

- Attachment A: Description and Safety Analysis for the Proposed Changes
- Attachment B: Marked-up TS Pages for the Proposed Changes
- Attachment C: Information Supporting a Finding of No Significant Hazards Consideration
- Attachment D: Information Supporting an Environmental Assessment
- Attachment E: Mark-up Pages for the Proposed Changes to LaSalle County Station Improved TS Bases

cc: Regional Administrator – NRC Region III
NRC Senior Resident Inspector – LaSalle County Station

STATE OF ILLINOIS)

IN THE MATTER OF)

COMMONWEALTH EDISON COMPANY)

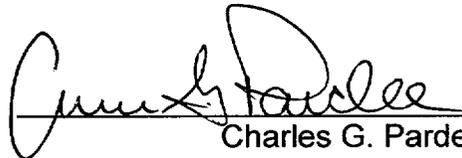
LASALLE COUNTY STATION - UNIT 1 and UNIT 2)

Docket Nos. 50-373
50-374

Subject: Application for Amendment to Appendix A, Technical Specifications, Section 3/4.8.1, "A.C. Sources – Operating"

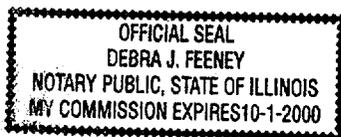
AFFIDAVIT

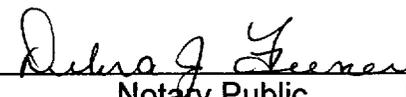
I affirm that the content of this transmittal is true and correct to the best of my knowledge, information and belief.



Charles G. Pardee
Site Vice President
LaSalle County Station

Subscribed and sworn to before me, a Notary Public in and for the State above named, this 1st day of May, 2000.
My Commission expires on 10-1, 2000.





Notary Public

ATTACHMENT A
Proposed Changes to Technical Specifications for
LaSalle County Station, Units 1 and 2
Page 1 of 5

**DESCRIPTION AND SAFETY ANALYSIS
FOR THE PROPOSED CHANGES**

A. SUMMARY OF THE PROPOSED CHANGES

Pursuant to 10 CFR 50.90, "Application for amendment of license or construction permit," Commonwealth Edison (ComEd) Company proposes to amend Appendix A, Technical Specifications (TS), of Facility Operating License Nos. NPF-11 and NPF-18. The proposed changes, for Units 1 and 2, to TS Section 3/4.8.1, "A.C. Sources – Operating," will add a footnote to Surveillance Requirement (SR) 4.8.1.1.2.d.8 regarding the 24-hour functional test of the emergency diesel generators (EDGs). The proposed changes will permit functional testing of the EDGs to be performed during power operation. Additionally, associated changes to Bases Section 3/4.8.1 and 3/4.8.2, "A.C. Sources and Onsite Power Distribution Systems," are also proposed.

B. DESCRIPTION OF THE CURRENT REQUIREMENTS

SR 4.8.1.1.2.d.8 requires that each of the required EDGs shall be demonstrated operable at least once per 18 months during shutdown by performing the following.

"Verifying the diesel generator operates* for at least 24 hours. During the first 2 hours of this test, the diesel generator shall be loaded to greater than or equal to 2860 kW and during the remaining 22 hours of this test, the diesel generator shall be loaded to 2400 kW to 2600 kW.*** The generator voltage and frequency shall be 4160 +420, -150 volts and 60 +3.0, -1.2 Hz within 13 seconds after the start signal; the steady state generator voltage and frequency shall be maintained within these limits during this test. Within 5 minutes after completing this 24-hour test, perform Surveillance Requirement 4.8.1.1.2.a.4.**"

The footnotes are as follows.

- * "All planned diesel generator starts performed for the purpose of meeting these Surveillance Requirements may be preceded by an engine prelude period, as recommended by the manufacturer."
- ** "If SR 4.8.1.1.2.a.4 is not satisfactorily completed, it is not necessary to repeat the preceding 24-hour test. Instead, the diesel generator may be operated at 2600 kW for 2 hours or until operating temperature has stabilized."
- *** "Transients, outside of this load band, do not invalidate the surveillance tests."

TS Section 3/4.8.1 is applicable in Operational Conditions 1, "Power Operation," 2, "Startup," and 3, "Hot Shutdown."

ATTACHMENT A
Proposed Changes to Technical Specifications for
LaSalle County Station, Units 1 and 2
Page 2 of 5

C. BASES FOR THE CURRENT REQUIREMENTS

Bases Section 3/4.8.1 and 3/4.8.2, states that the surveillance requirements for demonstrating the operability of the EDGs are based on the recommendations of Regulatory Guide (RG) 1.9, Revision 3, "Selection, Design, Qualification, and Testing of Emergency Diesel Generator Units Used as Class 1E Onsite Electric Power Systems at Nuclear Power Plants," dated July 1993, with the exception noted in Appendix B to the Updated Final Safety Analysis Report (UFSAR).

UFSAR, Appendix B, states that we conform to the regulatory positions in RG 1.9, Revision 3, with the following clarifications regarding the Endurance and Margin Test.

- RG 1.9, Revision 3, Paragraph C.2.2.9, "Endurance and Margin Test." Exception is taken to the 0.8 to 0.9 power factor loading requirement specified in this paragraph. The EDG will be loaded to within 0.8 to 0.9 power factor at full load during the endurance test for a period of approximately five minutes in order to verify the EDG system's capability to operate at the rated power factor condition.

The hot restart test, SR 4.8.1.1.2.a.4, demonstrates functional capability at full-load temperature conditions by verifying that the EDG will restart within 5 minutes after completing the 24-hour test.

RG 1.9, Revision 3, recommends a once per refueling cycle demonstration that the EDGs can start and run continuously at full load capability for an interval of not less than 24 hours. This test is presently performed only during a shutdown. This restriction was intended to prevent any electrical distribution system perturbations that would challenge continued steady state operation of the unit and, as a result, plant safety systems.

D. NEED FOR THE REVISION OF THE REQUIREMENTS

The current TS require that this test be performed during shutdown. Performing this test during power operation will help simplify and shorten the scheduling of the EDG testing and surveillance window during a refueling outage.

ATTACHMENT A
Proposed Changes to Technical Specifications for
LaSalle County Station, Units 1 and 2
Page 3 of 5

E. DESCRIPTION OF THE PROPOSED CHANGES

The proposed changes add a footnote to the SR for the 24-hour functional test of the EDGs and the associated hot restart test, which will permit functional testing of the EDGs to be performed during power operation (i.e., Operational Conditions 1 and 2).

The proposed footnote to SR 4.8.1.1.2.d.8, is as follows.

This test may be performed during power operation provided that the other required diesel generators are OPERABLE. Should any of the other required diesel generators become inoperable, the test will be aborted.

F. SAFETY ANALYSIS OF THE PROPOSED CHANGES

The proposed changes to permit the performance of the EDG 24-hour functional test during power operation, provided the other required EDGs are operable, are acceptable, based on the following.

- LaSalle County Station, Units 1 and 2, EDGs are run monthly, during power operation, to satisfy monthly TS requirements. The EDG system lineup with the offsite power system, for the monthly test, is identical to the lineup for the 24-hour functional test. Thus, performing the 24-hour functional test, during power operation, does not introduce a new mode of operation for the EDGs.
- During the 24-hour functional test of an EDG, no other EDG is operated in parallel with the offsite power system. Thus, the testing does not affect the independent safe shutdown capabilities of the emergency buses.
- For Electrical Divisions 1 and 2 (i.e., unit dedicated and shared EDGs), in the event of an emergency, with an EDG operating in the test mode and offsite power available, the emergency actuation signal overrides the test mode, returns the EDG to standby operation and automatically energizes the emergency bus loads with offsite power. This transfer is tested once per refueling cycle in accordance with SR 4.8.1.1.2.d.11.a. If a loss of offsite power occurs following the emergency actuation signal, the bus undervoltage relays will cause loadshedding and allow the EDG output breaker to automatically close and the EDG will pick up the emergency loads with load sequencing as designed. Thus, the EDG operating in the test mode, will be available to perform its intended safety function.
- For Electrical Division 3, the loads all support the High Pressure Core Spray (HPCS) system, thus the load on the bus is maximum for an accident that causes initiation of the HPCS system. The design thus does not cause a trip of the EDG output breaker. If an overcurrent were to occur due to a grid disturbance or fault, the bus Station

ATTACHMENT A
Proposed Changes to Technical Specifications for
LaSalle County Station, Units 1 and 2
Page 4 of 5

Auxiliary Transformer (SAT) feed breaker opens to clear the overcurrent condition and the EDG continues to supply the bus loads, including emergency loads if present. This overcurrent trip function is verified by TS SR 4.8.1.1.2.d.11.b.

- In the event of a loss of offsite power during the EDG test, there are several categories of events based on the design of the switchyard and SAT electrical protective relaying. The most likely loss of offsite power will be an SAT trip, which will cause the connected bus SAT feed breakers to trip, and the EDG will continue to supply the running loads. If an Emergency Core Cooling System (ECCS) actuation signal occurs, the sequence described in the bullets above for an ECCS actuation signal while the EDG is in a test mode will occur. Thus, the EDG will be available to perform its intended safety function.

For the other loss of offsite power events, the worst that could happen would be an overcurrent trip or other electrical protective trip of the EDG, because the electrical protection for events occurring outside the plant (i.e., grid to the SAT) are designed to protect the plant electrical loads from faults, etc.

- In the test mode, the EDG is loaded by paralleling with the offsite power system through the emergency bus in the same way as the monthly surveillance and the EDG is not in control of the system voltage or frequency. Thus, the 24-hour functional testing does not directly affect the plant electrical distribution system.

The proposed footnote requires the stopping of a 24-hour functional test conducted during power operation if another EDG is determined to be inoperable prior to or during the test. This addresses the concerns raised in NRC Information Notice 84-69, "Operation of Emergency Diesel Generators." The Information Notice discusses EDG configurations that have the potential to lead to a complete loss of offsite and onsite power to safety buses. Furthermore, with any one EDG inoperable the remaining EDGs are capable of supporting the safe shutdown of the plant.

ATTACHMENT A
Proposed Changes to Technical Specifications for
LaSalle County Station, Units 1 and 2
Page 5 of 5

G. IMPACT ON PREVIOUS SUBMITALS

This submittal impacts our submittal dated March 3, 2000, "Request for Technical Specifications Changes for Dresden Nuclear Power Station, Units 2 and 3, LaSalle County Station, Units 1 and 2, and Quad Cities Nuclear Power Station, Units 1 and 2, to Convert to Improved Standard Technical Specifications." The LaSalle County Station proposed Improved Technical Specification (ITS) Bases for SRs 3.8.1.14 and 3.8.1.15 are affected by these proposed changes. The proposed changes to the affected ITS Bases pages are included in Attachment E. The Limiting Condition for Operation (LCO) and SRs for the proposed ITS are not affected by this change.

H. SCHEDULE REQUIREMENTS

We request approval of this submittal by October 2, 2000, to support the LaSalle County Station, Unit 2, upcoming refueling outage, currently scheduled for early November 2000.

ATTACHMENT B
Proposed Changes to Technical Specifications for
LaSalle County Station, Units 1 and 2

MARKED-UP PAGES FOR PROPOSED CHANGES

REVISED PAGES

<u>NPF-11</u>	<u>NPF-18</u>
3/4 8-3*	3/4 8-3*
3/4 8-4*	3/4 8-4*
3/4 8-5*	3/4 8-5*
3/4 8-6*	3/4 8-6*
3/4 8-7	3/4 8-7
INSERT "A"	INSERT "A"
B 3/4 8-1*	B 3/4 8-1*
B 3/4 8-1a*	B 3/4 8-1a*
B 3/4 8-2	B 3/4 8-2
INSERT "B"	INSERT "B"

* This page is provided for information only, no changes.

This page is provided for
Information Only, No changes

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS

4.8.1.1.1 Each of the above required independent circuits between the offsite transmission network and the onsite Class 1E distribution system shall be:

- a. Determined OPERABLE at least once per 7 days by verifying correct breaker alignments and indicated power availability, and
- b. Demonstrated OPERABLE at least once per 18 months during shutdown by manually transferring unit power supply from the normal circuit to the alternate circuit.

4.8.1.1.2 Each of the above required diesel generators shall be demonstrated OPERABLE:*

- a. At least once per 31 days on a STAGGERED TEST BASIS by:
 1. Verifying the fuel level in the day fuel tank.
 2. Verifying the fuel level in the fuel storage tank.
 3. Verifying the fuel transfer pump starts and transfers fuel from the storage system to the day fuel tank.
 4. Verifying the diesel starts from ambient condition and accelerates to 900 rpm +5%, -2% in less than or equal to 13 seconds**. The generator voltage and frequency shall be 4160 ±150 volts and 60 + 3.0, -1.2 Hz within 13 seconds** after the start signal.
 5. Verifying the diesel generator is synchronized, and then loaded to 2400 kW to 2600 kW*** in accordance with the manufacturer's recommendations, and operates with this load for at least 60 minutes.

*All planned diesel generator starts performed for the purpose of meeting these surveillance requirements may be preceded by an engine prelube period, as recommended by the manufacturer.

**Surveillance testing to verify the diesel generator start (13 second) time from ambient conditions shall be performed at least once per 184 days. All other engine starts performed for the purpose of meeting these surveillance requirements may be conducted in accordance with warmup and loading procedures, as recommended by the manufacturer, in order to minimize mechanical stress and wear on the diesel generator caused by fast starting of the diesel generator.

***Transients, outside of this load band, do not invalidate the surveillance tests.

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS

This page is provided for information only, no changes.

6. Verifying the diesel generator is aligned to provide standby power to the associated emergency busses.
7. Verifying the pressure in required diesel generator air start receivers to be greater than or equal to 200 psig.
- b. At least once per 31 days and after each operation of the diesel where the period of operation was greater than or equal to 1 hour by checking for and removing accumulated water from the day fuel tanks.
- c. By sampling and analyzing stored and new fuel oil in accordance with the following:
 1. At least once per 92 days, and for new fuel oil prior to addition to the storage tanks, that a sample obtained and tested in accordance with the applicable ASTM Standards has:
 - a) A water and sediment content within applicable ASTM limits.
 - b) A kinematic viscosity at 40°C within applicable ASTM limits.
 2. At least every 31 days, and for new fuel oil prior to addition to the storage tanks, that a sample obtained in accordance with the applicable ASTM Standard has a total particulate contamination of less than 10 mg/l when tested in accordance with the applicable ASTM Standard.
- d. At least once per 18 months during shutdown by:
 1. (Not used).
 2. Verifying the diesel generator capability* to reject a load of greater than or equal to 1190 kW for diesel generator 0, greater than or equal to 638 kW for diesel generators 1A and 2A, and greater than or equal to 2421 kW for diesel generator 1B while maintaining engine speed less than or equal to 75% of the difference between nominal speed and the overspeed trip setpoint or 15% above nominal, whichever is less.
 3. Verifying the diesel generator capability* to reject a load of 2600 kW without tripping. The generator voltage shall not exceed 5000 volts during and following the load rejection.
 4. Simulating a loss of offsite power* by itself, and:

*All planned diesel generator starts performed for the purpose of meeting these surveillance requirements may be preceded by an engine prelube period, as recommended by the manufacturer.

ELECTRICAL POWER SYSTEMS

This page is provided for information only, no changes.

SURVEILLANCE REQUIREMENTS (Continued)

- a) For Divisions 1 and 2 and for Unit 2 Division 2:
 - 1) Verifying de-energization of the emergency busses and load shedding from the emergency busses.
 - 2) Verifying the diesel generator starts on the auto-start signal, energizes the emergency busses with permanently connected loads within 13 seconds, energizes the auto-connected loads and operates for greater than or equal to 5 minutes while its generator is so loaded. After energization, the steady-state voltage and frequency of the emergency busses shall be maintained at 4160 ± 150 volts and 60 ± 1.2 Hz during this test.
- b) For Division 3:
 - 1) Verifying de-energization of the emergency bus.
 - 2) Verifying the diesel generator starts on the auto-start signal, energizes the emergency bus with its loads within 13 seconds and operates for greater than or equal to 5 minutes while its generator is so loaded. After energization, the steady-state voltage and frequency of the emergency bus shall be maintained at 4160 ± 150 volts and 60 ± 1.2 Hz during this test.
- 5. Verifying that on an ECCS actuation test signal, without loss of offsite power, diesel generators 0, 1A, and 1B start* on the auto-start signal and operate on standby for greater than or equal to 5 minutes. The generator voltage and frequency shall be $4160 + 416, -150$ volts and $60 + 3.0, -1.2$ Hz within 13 seconds after the auto-start signal; the steady-state generator voltage and frequency shall be maintained within these limits during this test.
- 6. Simulating a loss of offsite power in conjunction with an ECCS actuation test signal,* and:
 - a) For Divisions 1 and 2:
 - 1) Verifying de-energization of the emergency busses and load shedding from the emergency busses.

*All planned diesel generator starts performed for the purpose of meeting these surveillance requirements may be preceded by an engine prelube period, as recommended by the manufacturer.

ELECTRICAL POWER SYSTEMS

This page is provided for information only, no changes.

SURVEILLANCE REQUIREMENTS (Continued)

- 2) Verifying the diesel generator starts on the auto-start signal, energizes the emergency busses with permanently connected loads within 13 seconds, energizes the auto-connected emergency loads through the load sequencer and operates for greater than or equal to 5 minutes while its generator is loaded with the emergency loads. After energization, the steady state voltage and frequency of the emergency busses shall be maintained at 4160 ± 416 volts and 60 ± 1.2 Hz during this test.
 - b) For Division 3:
 - 1) Verifying de-energization of the emergency bus.
 - 2) Verifying the diesel generator starts on the auto-start signal, energizes the emergency bus with its loads within 13 seconds and operates for greater than or equal to 5 minutes while its generator is loaded with the emergency loads. After energization, the steady state voltage and frequency of the emergency bus shall be maintained at 4160 ± 416 volts and 60 ± 1.2 Hz during this test.
7. Verifying that all diesel generator 0, 1A, and 1B automatic trips except the following are automatically bypassed on an ECCS actuation signal:
 - a) For Divisions 1 and 2 - engine overspeed, generator differential current, and emergency manual stop.
 - b) For Division 3 - engine overspeed, generator differential current, and emergency manual stop.
8. Verifying the diesel generator operates* for at least 24 hours. During the first 2 hours of this test, the diesel generator shall be loaded to greater than or equal to 2860 kW and during the remaining 22 hours of this test, the diesel generator shall be loaded to 2400 kW to 2600 kW.*** The generator voltage and frequency shall be $4160 +420, -150$ volts and $60 +3.0, -1.2$ Hz within 13 seconds after the start signal; the steady state

*All planned diesel generator starts performed for the purpose of meeting these surveillance requirements may be preceded by an engine prelube period, as recommended by the manufacturer.

***Transients, outside of this load band, do not invalidate the surveillance tests.

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

generator voltage and frequency shall be maintained within these limits during this test. Within 5 minutes after completing this 24 hour test, perform Surveillance Requirement 4.8.1.1.2.a.4.**

- #
9. Verifying* that the auto-connected loads to each diesel generator do not exceed the 2000 hour rating of 2860 kW.
 10. Verifying the diesel generator's capability* to:
 - a) Synchronize with the offsite power source while the generator is loaded with its emergency loads upon a simulated restoration of offsite power,
 - b) Transfer its loads to the offsite power source, and
 - c) Be restored to its standby status.
 11. Verifying that with diesel generator 0, 1A, and 1B operating* in a test mode and connected to its bus:
 - a) For Divisions 1 and 2, that a simulated ECCS actuation signal overrides the test mode by returning the diesel generator to standby operation.
 - b) For Division 3, that a simulated trip of the diesel generator overcurrent relay trips the SAT feed breaker to bus 143 and that the diesel generator continues to supply normal bus loads.
 12. Verifying that the automatic load sequence timer is OPERABLE with the interval between each load block within $\pm 10\%$ of its design interval for diesel generators 0 and 1A.
 13. Verifying that the following diesel generator lockout features prevent diesel generator operation only when required:

Add INSERT 'A'
attached

*All planned diesel generator starts performed for the purpose of meeting these surveillance requirements may be preceded by an engine prelube period, as recommended by the manufacturer.

**If Surveillance Requirement 4.8.1.1.2.a.4 is not satisfactorily completed, it is not necessary to repeat the preceding 24 hour test. Instead, the diesel generator may be operated at 2600 kW for 2 hours or until operating temperature has stabilized.

ATTACHMENT B
Proposed Changes to Technical Specifications for
LaSalle County Station, Units 1 and 2

INSERT A

#This test may be performed during power operation provided that the other required diesel generators are OPERABLE. Should any of the other required diesel generators become inoperable, the test will be aborted.

This page is provided for information only, no changes.

BASES

3/4.8.1 and 3/4.8.2 A.C. SOURCES and ONSITE POWER DISTRIBUTION SYSTEMS

The OPERABILITY of the A.C. and D.C. power sources and associated distribution systems during operation ensures that sufficient power will be available to supply the safety related equipment required for (1) the safe shutdown of the facility and (2) the mitigation and control of accident conditions within the facility. The minimum specified independent and redundant A.C. and D.C. power sources and distribution systems satisfy the requirements of General Design Criteria 17 of Appendix A to 10 CFR Part 50.

The ACTION requirements specified for the levels of degradation of the power sources provide restriction upon continued facility operation commensurate with the level of degradation. ACTION statements have been included in the specification to cover all situations where either one A.C. source or a combination of two A.C. sources are inoperable. ACTION statements c, e, and f are intended to be followed to completion once entered and should not be exited until both A.C. sources are restored. The OPERABILITY of the power sources are consistent with the initial condition assumptions of the accident analyses and are based upon maintaining at least Division I or II of the onsite A.C. and D.C. power sources and associated distribution systems OPERABLE during accident conditions coincident with an assumed loss of offsite power and single failure of one of the two onsite A.C. sources. Division III supplies the high pressure core spray (HPCS) system only.

The OPERABILITY of the minimum specified A.C. and D.C. power sources and associated distribution systems during shutdown and refueling ensures that (1) the facility can be maintained in the shutdown or refueling condition for extended time periods and (2) sufficient instrumentation and control capability is available for monitoring and maintaining the unit status.

The surveillance requirements for demonstrating the OPERABILITY of the diesel generators are based on the recommendations of Regulatory Guide 1.9, Revision 3, "Selection, Design, Qualification, and Testing of Emergency Diesel Generator Units Used as Class 1E Onsite Electric Power Systems at Nuclear Power Plants," July 1993, with the exception noted in Appendix B to the UFSAR.

The 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/operation. If results from these tests are within acceptable limits, the fuel oil may be added to the storage tanks without concern for contaminating the entire volume of fuel oil in the storage tanks. The tests, limits, and applicable American Society for Testing Materials (ASTM) standards are as follows:

- a. Sample the new fuel oil in accordance with ASTM-D4057-88;
- b. Verify in accordance with the tests specified in ASTM-D975-88 that the sample has a water and sediment content of less than or equal to 0.05 volume percent and a kinematic viscosity at 40 °C of greater than or equal to 1.9 but less than or equal to 4.1.

This page is provided for information only, no changes.

BASESA.C. SOURCES and ONSITE POWER DISTRIBUTION SYSTEMS (Continued)

- c. Verify that the new fuel oil has a total particulate contamination of less than 10 mg/liter when tested in accordance with ASTM-D2276-89.

This surveillance is an integral part of a comprehensive program to ensure the availability of high quality fuel oil for the diesel generators at all times. By testing for particulate on a 31-day basis, information regarding the condition of stored fuel oil can be obtained and trended.

Fuel oil degradation during long term storage shows up 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, however, which can cause engine failure. If particulate is removed from stored fuel oil by circulating to oil through filters (other than diesel engine filters), the fuel oil can be restored to acceptable condition and its storage life extended indefinitely. By obtaining and trending particulate data, it is possible to determine when stored fuel oil cleanup will be necessary. This is done before the maximum allowable particulate concentration is reached.

Particulate concentrations should be determined in accordance with ASTM-D2276-89, Method A. This method involves a gravimetric determination of total particulate concentration in fuel oil and has a limit of 10 mg/l. It is acceptable to obtain a field sample for subsequent lab testing in lieu of field testing. In the case(s) where the total stored fuel oil volume is contained in two or more interconnected tanks, each tank must be considered and tested separately.

The frequency of this surveillance takes into consideration fuel oil degradation trends that indicate that particulate concentration is unlikely to change between frequency intervals.

There is no quantitative data regarding the capability of diesel engines to operate for prolonged periods of time with fuel oil particulate contamination in excess of 10 mg/l. Therefore, if this limit is reached, the associated diesel generator shall be declared inoperable. In practice, however, this should not present a problem since the concept behind this surveillance requirement is to establish fuel oil degradation trends, which will provide an alert to the need for corrective action prior to impacting on diesel generator operability.

The diesel generators are equipped with a pre-lubrication system which maintains a continuous flow of oil to the diesel engine moving parts while the engine is shutdown. The purpose of this system is to increase long term diesel generator reliability by reducing the stress and wear caused by frequent dry starting of the diesel generator. The diesel generator pre-lube may be accomplished either through, normal operation of the installed pre-lubrication system, or by manual pre-lubrication of the diesel generator in accordance with manufacturers instructions. Performance of an idle start of the diesel generator is not considered to be a means of pre-lubrication.

ELECTRICAL POWER SYSTEMS

BASES

Add INSERT 'B'
as a new paragraph

A.C. SOURCES AND ONSITE POWER DISTRIBUTION SYSTEMS (Continued)

Analysis has shown that testing, which includes a semi-annual fast start of the diesel generators, is sufficient to demonstrate the capability of the onsite A.C. power systems to mitigate the consequences of the design basis event for the plant (i.e., large LOCA coincident with a loss of offsite power). All other engine starts, for the purpose of meeting the diesel generator surveillance requirements, may be preceded by a warm-up period of low speed operation (idle start), and gradual loading procedures, as recommended by the manufacturer, so that the mechanical stress and wear on the diesel generators is minimized. The load band of 2400 kW to 2600 kW is provided only to avoid routine overloading of the diesel generators. Momentary transients, outside the load band, due to changing bus loads do not invalidate the surveillance tests.

The surveillance requirements for demonstrating the OPERABILITY of the unit batteries are in accordance with 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 Station and Substations."

Verifying average electrolyte temperature above the minimum for which the battery was sized, total battery terminal voltage onfloat 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 4.8.2.3.2-1 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 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 4.8.2.3.2-1 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

ATTACHMENT B
Proposed Changes to Technical Specifications for
LaSalle County Station, Units 1 and 2

INSERT B

The 24-hour endurance and margin test and subsequent hot start test, Surveillance Requirement 4.8.1.1.2.d.8, may be performed during power operation provided that the other required diesel generators are OPERABLE. Should any of the other required diesel generators become inoperable, the test will be aborted.

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS

This page is provided for
Information only, No changes

4.8.1.1.1 Each of the above required independent circuits between the offsite transmission network and the onsite Class 1E distribution system shall be:

- a. Determined OPERABLE at least once per 7 days by verifying correct breaker alignments and indicated power availability, and
- b. Demonstrated OPERABLE at least once per 18 months during shutdown by manually transferring unit power supply from the normal circuit to the alternate circuit.

4.8.1.1.2 Each of the above required diesel generators shall be demonstrated OPERABLE:*

- a. At least once per 31 days on a STAGGERED TEST BASIS by:
 - 1. Verifying the fuel level in the day fuel tank.
 - 2. Verifying the fuel level in the fuel storage tank.
 - 3. Verifying the fuel transfer pump starts and transfers fuel from the storage system to the day fuel tank.
 - 4. Verifying the diesel starts from ambient condition and accelerates to 900 rpm + 5%, -2% in less than or equal to 13 seconds**. The generator voltage and frequency shall be 4160 ±150 volts and 60 + 3.0, -1.2 Hz within 13 seconds** after the start signal.
 - 5. Verifying the diesel generator is synchronized, and then loaded to 2400 kW to 2600 kW*** in accordance with the manufacturer's recommendations, and operates with this load for at least 60 minutes.

*All planned diesel generator starts performed for the purpose of meeting these surveillance requirements may be preceded by an engine prelube period, as recommended by the manufacturer.

**Surveillance testing to verify the diesel generator start (13 second) time from ambient conditions shall be performed at least once per 184 days. All other engine starts performed for the purpose of meeting these surveillance requirements may be conducted in accordance with warmup and loading procedures, as recommended by the manufacturer, in order to minimize mechanical stress and wear on the diesel generator caused by fast starting of the diesel generator.

***Transients, outside of this load band, do not invalidate the surveillance tests.

ELECTRICAL POWER SYSTEMS

This page is provided for information only, no changes.

SURVEILLANCE REQUIREMENTS

6. Verifying the diesel generator is aligned to provide standby power to the associated emergency busses.
7. Verifying the pressure in required diesel generator air start receivers to be greater than or equal to 200 psig.
- b. At least once per 31 days and after each operation of the diesel where the period of operation was greater than or equal to 1 hour by checking for and removing accumulated water from the day fuel tanks.
- c. By sampling and analyzing stored and new fuel oil in accordance with the following:
 1. At least once per 92 days, and for new fuel oil prior to addition to the storage tanks, that a sample obtained and tested in accordance with the applicable ASTM Standards has:
 - a) A water and sediment content within applicable ASTM limits.
 - b) A kinematic viscosity at 40°C within applicable ASTM limits.
 2. At least every 31 days, and for new fuel oil prior to addition to the storage tanks, that a sample obtained in accordance with the applicable ASTM Standard has a total particulate contamination of less than 10 mg/l when tested in accordance with the applicable ASTM Standard.
- d. At least once per 18 months during shutdown by:
 1. (Not Used).
 2. Verifying the diesel generator capability* to reject a load of greater than or equal to 1190 kW for diesel generator 0, greater than or equal to 638 kW for diesel generators 1A and 2A, and greater than or equal to 2421 kW for diesel generator 2B while maintaining engine speed less than or equal to 75% of the difference between nominal speed and the overspeed trip setpoint or 15% above nominal, whichever is less.
 3. Verifying the diesel generator capability* to reject a load of 2600 kW without tripping. The generator voltage shall not exceed 5000 volts during and following the load rejection.
 4. Simulating a loss of offsite power* by itself, and:

*All planned diesel generator starts performed for the purpose of meeting these surveillance requirements may be preceded by an engine prelube period, as recommended by the manufacturer.

This page is provided
for information only,
no changes.

SURVEILLANCE REQUIREMENTS (Continued)

- a) For Divisions 1 and 2 and for Unit 1 Division 2:
 - 1) Verifying de-energization of the emergency busses and load shedding from the emergency busses.
 - 2) Verifying the diesel generator starts on the auto-start signal, energizes the emergency busses with permanently connected loads within 13 seconds, energizes the auto-connected loads and operates for greater than or equal to 5 minutes while its generator is so loaded. After energization, the steady-state voltage and frequency of the emergency busses shall be maintained at 4160 ± 150 volts and 60 ± 1.2 Hz during this test.
- b) For Division 3:
 - 1) Verifying de-energization of the emergency bus.
 - 2) Verifying the diesel generator starts on the auto-start signal, energizes the emergency bus with its loads within 13 seconds and operates for greater than or equal to 5 minutes while its generator is so loaded. After energization, the steady-state voltage and frequency of the emergency bus shall be maintained at 4160 ± 150 volts and 60 ± 1.2 Hz during this test.
5. Verifying that on an ECCS actuation test signal, without loss of offsite power, diesel generators 0, 2A, and 2B start* on the auto-start signal and operate on standby for greater than or equal to 5 minutes. The generator voltage and frequency shall be $4160 + 416, -150$ volts and $60 + 3.0, -1.2$ Hz within 13 seconds after the auto-start signal; the steady-state generator voltage and frequency shall be maintained within these limits during this test.
6. Simulating a loss of offsite power in conjunction with an ECCS actuation test signal,* and:
 - a) For Divisions 1 and 2:
 - 1) Verifying de-energization of the emergency busses and load shedding from the emergency busses.

*All planned diesel generator starts performed for the purpose of meeting these surveillance requirements may be preceded by an engine prelube period, as recommended by the manufacturer.

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

This page is provided for information only, no changes.

- 2) Verifying the diesel generator starts on the auto-start signal, energizes the emergency busses with permanently connected loads within 13 seconds, energizes the auto-connected emergency loads through the load sequencer and operates for greater than or equal to 5 minutes while its generator is loaded with the emergency loads. After energization, the steady state voltage and frequency of the emergency busses shall be maintained at 4160 \pm 416 volts and 60 \pm 1.2 Hz during this test.
 - b) For Division 3:
 - 1) Verifying de-energization of the emergency bus.
 - 2) Verifying the diesel generator starts on the auto-start signal, energizes the emergency bus with its loads within 13 seconds and operates for greater than or equal to 5 minutes while its generator is loaded with the emergency loads. After energization, the steady state voltage and frequency of the emergency bus shall be maintained at 4160 \pm 416 volts and 60 \pm 1.2 Hz during this test.
7. Verifying that all diesel generator 0, 2A, and 2B automatic trips except the following are automatically bypassed on an ECCS actuation signal:
 - a) For Divisions 1 and 2 - engine overspeed, generator differential current, and emergency manual stop.
 - b) For Division 3 - engine overspeed, generator differential current, and emergency manual stop.
8. Verifying the diesel generator operates* for at least 24 hours. During the first 2 hours of this test, the diesel generator shall be loaded to greater than or equal to 2860 kW and during the remaining 22 hours of this test, the diesel generator shall be loaded to 2400 kW to 2600 kW.*** The generator voltage and frequency shall be 4160 \pm 420, -150 volts and 60 \pm 3.0, -1.2 Hz within 13 seconds after the start signal; the steady-state

*All planned diesel generator starts performed for the purpose of meeting these surveillance requirements may be preceded by an engine prelube period, as recommended by the manufacturer.

***Transients, outside of this load band, do not invalidate the surveillance tests.

000000

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

generator voltage and frequency shall be maintained within these limits during this test. Within 5 minutes after completing this 24 hour test, perform Surveillance Requirement 4.8.1.1.2.a.4.**

9. Verifying* that the auto-connected loads to each diesel generator do not exceed the 2000-hour rating of 2860 kW.
10. Verifying the diesel generator's capability* to:
- Synchronize with the offsite power source while the generator is loaded with its emergency loads upon a simulated restoration of offsite power,
 - Transfer its loads to the offsite power source, and
 - Be restored to its standby status.
11. Verifying that with diesel generator 0, 2A, and 2B operating* in a test mode and connected to its bus:
- For Divisions 1 and 2, that a simulated ECCS actuation signal overrides the test mode by returning the diesel generator to standby operation.
 - For Division 3, that a simulated trip of the diesel generator overcurrent relay trips the SAT feed breaker to bus 243 and that the diesel generator continues to supply normal bus loads.
12. Verifying that the automatic load sequence timer is OPERABLE with the interval between each load block within $\pm 10\%$ of its design interval for diesel generators 0 and 2A.
13. Verifying that the following diesel generator lockout features prevent diesel generator operation only when required:

Add INSERT 'A'
attached

*All planned diesel generator starts performed for the purpose of meeting these surveillance requirements may be preceded by an engine prelube period, as recommended by the manufacturer.

**If Surveillance Requirement 4.8.1.1.2.a.4 is not satisfactorily completed, it is not necessary to repeat the preceding 24 hour test. Instead, the diesel generator may be operated at 2600 kW for 2 hours or until operating temperature has stabilized.

ATTACHMENT B
Proposed Changes to Technical Specifications for
LaSalle County Station, Units 1 and 2

INSERT A

*This test may be performed during power operation provided that the other required diesel generators are OPERABLE. Should any of the other required diesel generators become inoperable, the test will be aborted.

This page is provided for information only, no changes.

BASES

3/4.8.1 and 3/4.8.2 A.C. SOURCES and ONSITE POWER DISTRIBUTION SYSTEMS

The OPERABILITY of the A.C. and D.C. power sources and associated distribution systems during operation ensures that sufficient power will be available to supply the safety related equipment required for (1) the safe shutdown of the facility and (2) the mitigation and control of accident conditions within the facility. The minimum specified independent and redundant A.C. and D.C. power sources and distribution systems satisfy the requirements of General Design Criteria 17 of Appendix A to 10 CFR Part 50.

The ACTION requirements specified for the levels of degradation of the power sources provide restriction upon continued facility operation commensurate with the level of degradation. ACTION statements have been included in the specification to cover all situations where either one A.C. source or a combination of two A.C. sources are inoperable. ACTION statements c, e, and f are intended to be followed to completion once entered and should not be exited until both A.C. sources are restored. The OPERABILITY of the power sources are consistent with the initial condition assumptions of the accident analyses and are based upon maintaining at least Division I or II of the onsite A.C. and D.C. power sources and associated distribution systems OPERABLE during accident conditions coincident with an assumed loss of offsite power and single failure of one of the two onsite A.C. sources. Division III supplies the high pressure core spray (HPCS) system only.

The OPERABILITY of the minimum specified A.C. and D.C. power sources and associated distribution systems during shutdown and refueling ensures that (1) the facility can be maintained in the shutdown or refueling condition for extended time periods and (2) sufficient instrumentation and control capability is available for monitoring and maintaining the unit status.

The surveillance requirements for demonstrating the OPERABILITY of the diesel generators are based on the recommendations of Regulatory Guide 1.9, Revision 3, "Selection, Design, Qualification, and Testing of Emergency Diesel Generator Units Used as Class 1E Onsite Electric Power Systems at Nuclear Power Plants," July 1983, with the exception noted in Appendix B to the UFSAR.

The 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/operation. If results from these tests are within acceptable limits, the fuel oil may be added to the storage tanks without concern for contaminating the entire volume of fuel oil in the storage tanks. The tests, limits, and applicable American Society for Testing Materials (ASTM) standards are as follows:

- a. Sample the new fuel oil in accordance with ASTM-D4057-88;
- b. Verify in accordance with the tests specified in ASTM-D975-88 that the sample has a water and sediment content of less than or equal to 0.05 volume percent and a kinematic viscosity at 40 °C of greater than or equal to 1.9 but less than or equal to 4.1.

This page is provided for information only, no changes.

BASESSOURCES and ONSITE POWER DISTRIBUTION SYSTEMS (Continued)

- c. Verify that the new fuel oil has a total particulate contamination of less than 10 mg/liter when tested in accordance with ASTM-D2276-89.

This surveillance is an integral part of a comprehensive program to ensure the availability of high quality fuel oil for the diesel generators at all times. By testing for particulate on a 31-day basis, information regarding the condition of stored fuel oil can be obtained and trended.

Fuel oil degradation during long term storage shows up 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, however, which can cause engine failure. If particulate is removed from stored fuel oil by circulating to oil through filters (other than diesel engine filters), the fuel oil can be restored to acceptable condition and its storage life extended indefinitely. By obtaining and trending particulate data, it is possible to determine when stored fuel oil cleanup will be necessary. This is done before the maximum allowable particulate concentration is reached.

Particulate concentrations should be determined in accordance with ASTM-D2276-89, Method A. This method involves a gravimetric determination of total particulate concentration in fuel oil and has a limit of 10 mg/l. It is acceptable to obtain a field sample for subsequent lab testing in lieu of field testing. In the case(s) where the total stored fuel oil volume is contained in two or more interconnected tanks, each tank must be considered and tested separately.

The frequency of this surveillance takes into consideration fuel oil degradation trends that indicate that particulate concentration is unlikely to change between frequency intervals.

There is no quantitative data regarding the capability of diesel engines to operate for prolonged periods of time with fuel oil particulate contamination in excess of 10 mg/l. Therefore, if this limit is reached, the associated diesel generator shall be declared inoperable. In practice, however, this should not present a problem since the concept behind this surveillance requirement is to establish fuel oil degradation trends, which will provide an alert to the need for corrective action prior to impacting on diesel generator operability.

The diesel generators are equipped with a pre-lubrication system which maintains a continuous flow of oil to the diesel engine moving parts while the engine is shutdown. The purpose of this system is to increase long term diesel generator reliability by reducing the stress and wear caused by frequent dry starting of the diesel generator. The diesel generator pre-lube may be accomplished either through, normal operation of the installed pre-lubrication system, or by manual pre-lubrication of the diesel generator in accordance with manufacturers instructions. Performance of an idle start of the diesel generator is not considered to be a means of pre-lubrication.

ELECTRICAL POWER SYSTEMS

Add INSERT 'B'
as a new paragraph

BASES

A.C. SOURCES AND ONSITE POWER DISTRIBUTION SYSTEMS (Continued)

Analysis has shown that testing, which includes a semi-annual fast start of the diesel generators, is sufficient to demonstrate the capability of the onsite A.C. power systems to mitigate the consequences of the design basis event for the plant (i.e., large LOCA coincident with a loss of offsite power). All other engine starts, for the purpose of meeting the diesel generator surveillance requirements, may be preceded by a warm-up period of low speed operation (idle start), and gradual loading procedures, as recommended by the manufacturer, so that the mechanical stress and wear on the diesel generators is minimized. The load band of 2400 kW to 2600 kW is provided only to avoid routine overloading of the diesel generators. Momentary transients, outside the load band, due to changing bus loads do not invalidate the surveillance tests.

The surveillance requirements for demonstrating the OPERABILITY of the unit batteries are in accordance with 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 Station 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 4.8.2.3.2-1 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 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 4.8.2.3.2-1 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

ATTACHMENT B
Proposed Changes to Technical Specifications for
LaSalle County Station, Units 1 and 2

INSERT B

The 24-hour endurance and margin test and subsequent hot start test, Surveillance Requirement 4.8.1.1.2.d.8, may be performed during power operation provided that the other required diesel generators are OPERABLE. Should any of the other required diesel generators become inoperable, the test will be aborted.

ATTACHMENT C
Proposed Changes to Technical Specifications for
LaSalle County Station, Units 1 and 2
1 of 3

**INFORMATION SUPPORTING A FINDING OF NO SIGNIFICANT HAZARDS
CONSIDERATION**

Commonwealth Edison (ComEd) Company has evaluated the proposed changes and has determined that the proposed changes do not involve a significant hazards consideration and is providing the following information to support a finding of no significant hazards consideration. According to 10 CFR 50.92(c), a proposed amendment to an operating license involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not:

Involve a significant increase in the probability of occurrence or consequences of an accident previously evaluated;

Create the possibility of a new or different kind of accident from any previously analyzed; or

Involve a significant reduction in a margin of safety.

The proposed changes to Technical Specification (TS) Section 3/4.8.1, "A.C. Sources – Operating," will add a footnote, for Units 1 and 2, to Surveillance Requirement (SR) 4.8.1.1.2.d.8, regarding the 24-hour functional test of the emergency diesel generators (EDGs). The proposed changes will permit functional testing of the EDGs to be performed during power operation. Additionally, associated changes to Bases Section 3/4.8.1 and 3/4.8.2, "A.C. Sources and Onsite Power Distribution Systems," are also proposed.

The determination that the criteria set forth in 10 CFR 50.92 (c) is met for this amendment request is indicated below.

Do the proposed changes involve a significant increase in the probability or consequences of an accident previously evaluated?

The function of the emergency diesel generators (EDGs) is to supply emergency power in the event of a loss of offsite power. Operation of the EDGs is not a precursor to any accident. Therefore, the proposed change to permit the 24-hour functional test of the EDGs to be performed during power operation does not increase the probability of an accident previously evaluated.

The EDG that is being tested will be available to supply emergency loads within the required time to mitigate an accident. In addition, the remaining required EDGs will be operable during the test. Furthermore, with any one EDG

ATTACHMENT C
Proposed Changes to Technical Specifications for
LaSalle County Station, Units 1 and 2
2 of 3

inoperable the remaining EDGs are capable of supporting the safe shutdown of the plant. Therefore, the consequences of an accident previously evaluated are not significantly changed.

Therefore, the proposed changes will not involve a significant increase in the probability or consequences of an accident previously evaluated.

Do the proposed changes create the possibility of a new or different kind of accident from any accident previously evaluated?

The proposed changes to the 24-hour functional surveillance test will not affect the operation of any safety system or alter its response to any previously analyzed accident. The EDG will automatically transfer from the test mode of operation, if necessary, to supply emergency loads in the required time. This mode of operation is used for the monthly surveillance of the EDGs. Therefore, no new plant operating modes are introduced.

In the event the EDG fails the functional test, it will be declared inoperable and the actions required for an inoperable EDG will be performed. The remaining required EDGs will be maintained operable and are capable of feeding the loads necessary for safe shutdown of the plant. This addresses the concerns raised in the NRC Information Notice 84-69, "Operation of Emergency Diesel Generators," regarding the operation of EDG connected in parallel with offsite power. The Information Notice discusses EDG configurations that have the potential to lead to a complete loss of offsite and onsite power to safety buses. In summary, the proposed changes do not adversely affect the performance or the ability of the EDGs to perform their intended function.

Therefore, the proposed change will not create the possibility of a new or different kind of accident from any previously evaluated.

ATTACHMENT C
Proposed Changes to Technical Specifications for
LaSalle County Station, Units 1 and 2
3 of 3

Do the proposed changes involve a significant reduction in a margin of safety?

The proposed changes will not reduce availability of the EDG being tested to provide emergency power in the event of a loss of offsite power. If a loss of offsite power with a loss of coolant accident occurs during the surveillance test, the emergency bus would de-energize and shed load. The EDG would then transfer from the test mode to the emergency mode. It would then be available to automatically supply emergency loads. In addition, the remaining required EDGs would be maintained operable during the test. Furthermore, with any one EDG inoperable the remaining EDGs are capable of supporting the safe shutdown of the plant. The time required for the EDG being tested to pick up emergency loads will not be affected by performing the 24-hour functional test during power operation.

The proposed changes do not affect the assumptions or consequences of the analyzed accidents. Therefore, the proposed changes do not change any assumed safety margins.

Therefore, the proposed changes will not involve a significant reduction in a margin of safety.

Therefore, based upon the above evaluation, we have concluded that the proposed changes do not constitute a significant hazards consideration.

ATTACHMENT D
Proposed Change to Technical Specifications for
LaSalle County Station, Units 1 and 2
1 of 1

INFORMATION SUPPORTING AN ENVIRONMENTAL ASSESSMENT

ComEd has evaluated the proposed changes against the criteria for identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR 51.21. ComEd has determined that the proposed changes meet the criteria for a categorical exclusion set forth in 10 CFR 51.22(c)(9) and as such, has determined that no irreversible consequences exist in accordance with 10 CFR 50.92(b). This determination is based on the fact that this change is being proposed as an amendment to a license issued pursuant to 10 CFR 50 that changes a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or that changes an inspection or a surveillance requirement, and the proposed changes meet the following specific criteria.

- (i) The proposed changes involve no significant hazards consideration.

The proposed changes do not involve a significant hazards consideration.

- (ii) There is no significant change in the types or significant increase in the amounts of any effluent that may be released offsite.

There will be no change in the types or significant increase in the amounts of any effluents released offsite.

- (iii) There is no significant increase in individual or cumulative occupational radiation exposure.

The proposed changes will not result in changes in the operation or configuration of the facility. There will be no change in the level of controls or methodology used for processing of radioactive effluents or handling of solid radioactive waste, nor will the proposal result in any change in the normal radiation levels within the plant. Therefore, there will be no increase in individual or cumulative occupational radiation exposure resulting from the proposed changes.

ATTACHMENT E
Proposed Change to Technical Specifications for
LaSalle County Station, Units 1 and 2

MARKED-UP PAGES FOR PROPOSED CHANGES TO THE LASALLE COUNTY
STATION IMPROVED TECHNICAL SPECIFICATION BASES

REVISED LASALLE ITS BASES PAGES

NPF-11 & NPF-18

B 3.8.1-31*

B 3.8.1-32

B 3.8.1-33

INSERT

B 3.8.1-34*

* This page is provided for information only, no changes.

This page is provided for information only, no changes.

BASES

SURVEILLANCE
REQUIREMENTS

SR 3.8.1.12 (continued)

This SR is modified by a Note. The reason for the Note is to minimize wear and tear on the DGs during testing. The prelube period shall be consistent with manufacturer recommendations. For the purpose of this testing, the DGs must be started from normal standby conditions, that is, with the engine jacket water and lube oil temperatures within the prescribed temperature bands of these subsystems when the DG has been at rest for an extended period with the pre-lube oil and jacket water circulating systems operational.

SR 3.8.1.13

Consistent with Regulatory Guide 1.9 (Ref. 3) paragraph C.2.2.12, this Surveillance demonstrates that DG non-critical protective functions (e.g., high jacket water temperature) are bypassed on a loss of voltage signal concurrent with an ECCS initiation test signal and critical protective functions (engine overspeed and generator differential current) trip the DG to avert substantial damage to the DG unit. The non-critical trips are bypassed during DBAs and provide an alarm on an abnormal engine condition. This alarm provides the operator with sufficient time to react appropriately. The DG availability to mitigate the DBA is more critical than protecting the engine against minor problems that are not immediately detrimental to emergency operation of the DG.

The 24 month Frequency is based on engineering judgment, taking into consideration plant conditions required to perform the Surveillance, and is intended to be consistent with expected fuel cycle lengths.

SR 3.8.1.14

Consistent with Regulatory Guide 1.9 (Ref. 3), paragraph C.2.2.9, this Surveillance requires demonstration that the DGs can start and run continuously near full load capability for an interval of not less than 24 hours, 22 hours of which is at a load equivalent to 92% and 100% of the continuous rating of the DG, and 2 hours of which is at

(continued)

BASES

SURVEILLANCE
REQUIREMENTS

SR 3.8.1.14 (continued)

a load between the 2000 hour rating and the 7 day rating of the DG. The DG starts for this Surveillance can be performed either from normal standby or hot conditions. The provisions for prelube and warmup, discussed in SR 3.8.1.2, and for gradual loading, discussed in SR 3.8.1.3, are applicable to this SR.

In order to ensure that the DG is tested under load conditions that are as close to design conditions as possible, testing must be performed at a power factor as close to the accident load power factor as practicable. When synchronized with offsite power, the power factor limit is ≤ 0.85 . This power factor is chosen to bound the actual worst case inductive loading that the DG could experience under design basis accident conditions.

The 24 month Frequency ⁹ takes into consideration plant conditions required to perform the Surveillance, and is intended to be consistent with expected fuel cycle lengths. ^{preferred}

INSERT

This Surveillance is modified by three Notes. Note 1 states that momentary transients due to changing bus loads do not invalidate this test. The load band is provided to avoid routine overloading of the DG. Routine overloading may result in more frequent teardown inspections in accordance with vendor recommendations in order to maintain DG OPERABILITY. Similarly, momentary power factor transients above the limit do not invalidate the test. Note 2 is provided in recognition that under certain conditions, it is necessary to allow the surveillance to be conducted at a power factor other than the specified limit. These conditions occur when grid voltage is high, and the additional field excitation needed to get the power factor to the specified limit results in voltages on the emergency buses that are too high. Under these conditions, the power factor should be maintained as close as practicable to the specified limit while still maintaining acceptable voltage limits on the emergency buses. In other circumstances, the grid voltage may be such that the DG excitation levels needed to obtain the specified power factor may not cause unacceptable voltages on the emergency buses, but the

(continued)

BASES

SURVEILLANCE
REQUIREMENTS

SR 3.8.1.14 (continued)

transient voltage at the generator terminals would be in excess of those recommended for the DG, if the DG output breaker were to trip during the Surveillance. In such cases, the power factor shall be maintained as close as practicable to the specified limit while still ensuring that if the DG output breaker were to trip during the Surveillance that the maximum DG winding voltage would not be exceeded. To minimize testing of the common DG, Note 3 allows a single test of the common DG (instead of two tests, one for each unit) to satisfy the requirements for both units. This is allowed since the main purpose of the Surveillance can be met by performing the test on either unit. If the DG fails one of these Surveillances, the DG should be considered inoperable on both units, unless the cause of the failure can be directly related to only one unit.

SR 3.8.1.15

This Surveillance demonstrates that the diesel engine can restart from a hot condition, such as subsequent to shutdown from normal Surveillances, and achieve the required voltage and frequency within 13 seconds. The 13 second time is derived from the requirements of the accident analysis for responding to a design basis large break LOCA (Ref. 5). In addition, the DG is required to maintain proper voltage and frequency limits after steady state is achieved. The voltage and frequency limits are normally achieved within 13 seconds. The time for the DG to reach the steady state voltage and frequency limits is periodically monitored and the trend evaluated to identify degradation of governor and voltage regulator performance.

preferred

The 24 month Frequency takes into consideration *the* plant conditions required to perform the Surveillance, and is intended to be consistent with expected fuel cycle lengths.

INSERT

This SR has been modified by three Notes. Note 1 ensures that the test is performed with the diesel sufficiently hot. The requirement that the diesel has operated for at least 2 hours at 92% to 100% of full load conditions prior to performance of this Surveillance is based on manufacturer recommendations for achieving hot conditions. The load band

(continued)

ATTACHMENT E
Proposed Change to Technical Specifications for
LaSalle County Station, Units 1 and 2

INSERT FOR B 3.8.1.14 AND B 3.8.1.15

However, performance of this Surveillance has been evaluated for operating plant conditions and found to be acceptable with the restriction that the other required DGs must be OPERABLE. Should another DG become inoperable during the performance of this Surveillance, the Surveillance will be aborted and the DG being tested returned to an OPERABLE status within 2 hours. This time frame is consistent with the most restrictive Completion Time for two required DGs inoperable.

*This page is provided for information only
No changes.*

BASES

SURVEILLANCE
REQUIREMENTS

SR 3.8.1.15 (continued)

is provided to avoid routine overloading of the DG. Routine overloads may result in more frequent teardown inspections in accordance with vendor recommendations in order to maintain DG OPERABILITY. Momentary transients due to changing bus loads do not invalidate this test. Note 2 allows all DG starts to be preceded by an engine prelube period to minimize wear and tear on the diesel during testing. The prelube period shall be consistent with manufacturer recommendations. To minimize testing of the common DG, Note 3 allows a single test of the common DG (instead of two tests, one for each unit) to satisfy the requirements for both units. This is allowed since the main purpose of the Surveillance can be met by performing the test on either unit. If the DG fails one of these Surveillances, the DG should be considered inoperable on both units, unless the cause of the failure can be directly related to only one unit.

SR 3.8.1.16

Consistent with Regulatory Guide 1.9 (Ref. 3), paragraph C.2.2.11, this Surveillance ensures that the manual synchronization and automatic load transfer from the DG to the offsite source can be made and that the DG can be returned to ready-to-load status when offsite power is restored. It also ensures that the auto-start logic is reset to allow the DG to reload if a subsequent loss of offsite power occurs. The DG is considered to be in ready-to-load status when the DG is at rated speed and voltage, the output breaker is open and can receive an auto-close signal on bus undervoltage, and the individual load time delay relays are reset.

The Frequency of 24 months takes into consideration plant conditions required to perform the Surveillance, and is intended to be consistent with expected fuel cycle lengths.

(continued)