



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

COMMONWEALTH EDISON COMPANY

DOCKET NO. 50-237

DRESDEN NUCLEAR POWER STATION, UNIT NO. 2

AMENDMENT TO PROVISIONAL OPERATING LICENSE

Amendment No. 98
License No. DPR-19

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by the Commonwealth Edison Company (the licensee) dated August 26, 1986 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 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.

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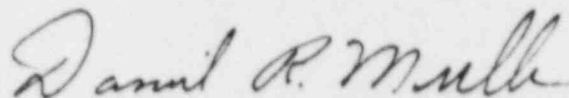
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 3.B. of Provisional Operating License No. DPR-19 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 98, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance, to be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Daniel R. Muller, Director
Project Directorate III-2
Division of Reactor Projects - III,
IV, V and Special Projects

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 19, 1988

ATTACHMENT TO LICENSE AMENDMENT NO. 98

PROVISIONAL OPERATING LICENSE DPR-19

DOCKET NO. 50-237

Revise the Appendix A Technical Specifications by removing the pages identified below and inserting the attached pages. The revised pages are identified by the captioned amendment number and contain marginal lines indicating the area of change.

REMOVE

3/4 5-2
3/4 5-3
3/4 5-4
3/4 5-6
B 3/4 5-33
3/4 9-3
3/4 9-4
3/4 9-5
3/4 9-6

INSERT

3/4 5-2
3/4 5-3
3/4 5-4
3/4 5-6
B 3/4 5-33
3/4 9-3
3/4 9-4
3/4 9-5
3/4 9-6

3.5 LIMITING CONDITION FOR OPERATION
(Cont'd.)

4.5 SURVEILLANCE REQUIREMENT
(Cont'd.)

to a reactor
vessel
pressure of
90 psig

- c. Pump Once/month
Operability
- d. Motor Once/month
Operated
Valve
- e. Core Spray
header delta
p instru-
mentation:
 - check Once/day
 - calibrate Once/3 months
 - test Once/3 months
- f. Logic Each
System Refueling
Functional Outage
Test

2. From and after the date that one of the core spray subsystems is made or found to be inoperable for any reason, reactor operation is permissible only during the succeeding seven days unless such subsystem is sooner made operable, provided that during such seven days all active components of the other core spray subsystem and the LPCI subsystem and the diesel generators required for operation

2. When it is determined that one core spray subsystem is inoperable, the operable core spray subsystem and the LPCI subsystem shall be demonstrated to be operable immediately. The operable core spray subsystem shall be demonstrated to be operable daily thereafter.

3.5 LIMITING CONDITION FOR OPERATION
(Cont'd.)

- of such components if no external source of power were available shall be operable.
3. Except as specified in 3.5.A.4, 3.5.A.5 and 3.5.F.3 below, the LPCI subsystem shall be operable whenever irradiated fuel is in the reactor vessel.
 4. From and after the date that one of the LPCI pumps is made or found to be inoperable for any reason, reactor operation is permissible only during the succeeding thirty days unless such pump is sooner made operable, provided that during such thirty days the remaining active components of the LPCI and containment cooling subsystem and all active components of both core spray subsystems and the diesel generators required for operation of such components if no external source of power were available shall be operable.
 5. From and after the date that the LPCI subsystem is made or found to be inoperable

4.5 SURVEILLANCE REQUIREMENT
(Cont'd.)

3. LPCI Subsystem Testing shall be as specified in 4.5.A.1.a, b, c, d, and f, except that three LPCI pumps shall deliver at least 14,500 gpm against a system head corresponding to a reactor vessel pressure of 20 psig.
4. When it is determined that one of the LPCI Pumps is inoperable, the remaining active components of the LPCI and containment cooling subsystem, both core spray subsystems shall be demonstrated to be operable immediately and the operable LPCI pumps daily thereafter.
5. When it is determined that the LPCI subsystem is inoperable, both core spray subsystems,

3.5 LIMITING CONDITION FOR OPERATION
(Cont'd.)

for any reason, reactor operation is permissible only during the succeeding seven days unless it is sooner made operable, provided that during such seven days all active components of both core spray subsystems, the containment cooling subsystem (including 2 LPCI pumps) and the diesel generators required for operation of such components if no external source of power were available shall be operable.

6. Containment cooling spray loops are required to be operable when the reactor water temperature is greater than 212°F except that a maximum of one drywell spray loop may be inoperable for thirty days when the reactor water temperature is greater than 212°F.
7. If the requirements of 3.5.A cannot be met, an orderly shutdown of the reactor shall be initiated and the reactor shall be in the Cold Shutdown condition within 24 hours. Subsequently, the reactor may be placed in Refuel, for post maintenance testing of control rod drives only, provided no work is being performed which has the potential to drain the reactor-vessel.

4.5 SURVEILLANCE REQUIREMENT
(Cont'd.)

the containment cooling subsystem, shall be demonstrated to be operable immediately and daily thereafter.

6. During each five year period an air test shall be performed on the drywell spray headers and nozzles.

3.5 LIMITING CONDITION FOR OPERATION
(Cont'd.)

3. From and after the date that one containment cooling subsystem is made or found to be inoperable for any reason, reactor operation is permissible only during the succeeding seven days unless such subsystem is sooner made operable, provided that all active components of the other containment cooling subsystem, both core spray subsystems and both diesel generators required for operation of such components if no external source of power were available, shall be operable.
4. If the requirements of 3.5.B cannot be met an orderly shutdown shall be initiated and the reactor shall be in a Cold Shutdown condition within 24 hours.

C. HPCI Subsystem

1. Except as specified in 3.5.C.2 below, the HPCI subsystem shall be operable whenever the reactor pressure is greater than 90 psig and irradiated fuel is in the reactor vessel.

4.5 SURVEILLANCE REQUIREMENT
(Cont'd.)

3. When one containment cooling subsystem becomes inoperable, the operable subsystem shall be demonstrated to be operable immediately and the operable containment cooling subsystem daily thereafter.

C. Surveillance of HPCI Subsystem shall be performed as follows:

1. HPCI Subsystem Testing shall be as specified in 4.5.A.1.a, b, c, d, and f, except that the HPCI pump shall deliver at least 5000 gpm against a system head corresponding to a reactor vessel pressure of 1150 psig to 150 psig.

3.5 LIMITING CONDITION FOR OPERATION BASES (Cont'd.)

systems will function, a daily test is called for. Although it is recognized that the information given in reference 3 provides a quantitative method to estimate allowable repair times, the lack of operating data to support the analytical approach prevents complete acceptance of this method at this time. Therefore, the times stated in the specific items were established with due regard to judgement.

Should one core spray subsystem become inoperable, the remaining core spray and the entire LPCI system are available should the reactor core cooling arise. To assure that the remaining core spray and LPCI subsystems are available they are demonstrated to be operable immediately. This demonstration includes a manual initiation of the pumps and associated valves. Based on judgements of the reliability of the remaining systems; i.e. the core spray and LPCI, a 7-day repair period was obtained.

Should the loss of one LPCI pump occur, a nearly full complement of core and containment cooling equipment is available. Three LPCI pumps in conjunction with the core spray subsystem will perform the core cooling function. Because of the availability of the majority of the core cooling equipment, which will be demonstrated to be operable, a 30-day repair period is justified. If the LPCI subsystem is not available, at least 2 LPCI pumps must be available to fulfill the containment cooling function. The 7-day repair period is set on this basis.

- B. Containment Cooling Service Water - The containment heat removal portion of the LPCI/containment cooling subsystem is provided to remove heat energy from the containment in the event of a loss of coolant accident. For the flow specified, the containment long-term pressure is limited to less than 8 psig and, therefore, is more than ample to provide the required heat removal capability. (Ref. Section 5.2.3.2 SAR).

The containment cooling subsystem consists of two sets of 2 service water pumps, 1 heat exchanger and 2 LPCI pumps. Either set of equipment is capable of performing the containment cooling function. Loss of one containment cooling service water pump does not seriously jeopardize the containment cooling capability as any 2 of the remaining three pumps can satisfy the cooling requirements. Since there is some redundancy left a 30-day repair period is adequate. Loss

3.9 LIMITING CONDITION FOR OPERATION
(Cont'd.)

4.9 SURVEILLANCE REQUIREMENT
(Cont'd.)

permissible only during the succeeding seven days unless the second line is sooner placed in service providing both the Unit 2 and Unit 2/3 emergency diesel generators are operable. From and after the date that incoming power is not available from any line, reactor operation is permissible providing both the Unit 2 and Unit 2/3 emergency diesel generators are operating and all core and containment cooling systems are operable and the NRC is notified within 24 hours of the situation, the precautions to be taken during this situation, and the plans for prompt restoration of incoming power.

2. a. From and after the date that one of the diesel generators and/or its associated bus is made or found to be inoperable for any reason, except as specified in Specification 3.9.B.2.b below, reactor operation is permissible according to Specification 3.5/4.5.F and 3.9.D only during the succeeding seven days unless such diesel generator and/or bus is sooner made

3.9 LIMITING CONDITION FOR OPERATION
(Cont'd.)

operable, provided that during such seven days the operable diesel generator shall be demonstrated to be operable at least once each day and two off-site lines as specified in 3.9.A. are available.

- b. Specification 3.9.B.2.a shall not apply when a diesel generator has been made inoperable for a period not to exceed 1-1/2 hours for the purpose of conducting preventative maintenance. Additionally, preventative maintenance shall not be undertaken unless two offsite lines are available and the alternate diesel generator has been demonstrated to be operable.

3. From and after the date that one of the two 125 or 250V battery systems is made or found to be inoperable, except as specified in 3.9.B.4a or b, Unit shutdown shall be initiated within 2 hours and the unit shall be in cold shutdown in 24 hours unless the failed battery can be sooner made operable.
4. a. Each 125 or 250 volt battery may be inoperable for a maximum of 7 days per operating cycle for maintenance and testing.

4.9 SURVEILLANCE REQUIREMENT
(Cont'd.)

3.9 LIMITING CONDITION FOR OPERATION
(Cont'd.)

- b. If it is determined that a battery need be replaced as a result of maintenance or testing, a specific battery may be inoperable for an additional 7 days per operating cycle.

C. Diesel Fuel

There shall be a minimum of 10,000 gallons of diesel fuel supply on site for each diesel.

D. Diesel Generator Operability

Whenever the reactor is in the Cold Shutdown or Refueling modes, a minimum of one diesel generator (either the Dresden 2 diesel generator or the Unit 2/3 diesel generator) shall be operable whenever any work is being done which has the potential for draining the vessel, secondary containment is required, or a core or containment cooling system is required.

4.9 SURVEILLANCE REQUIREMENT
(Cont'd.)

C. Diesel Fuel

Once a month the quantity of diesel fuel available shall be logged.

Once a month a sample of diesel fuel shall be checked for quality.

D. Diesel Generator Operability

1. Each diesel generator shall be manually started and loaded once each month to demonstrate operational readiness. The test shall continue until both the diesel engine and the generator are at equilibrium conditions of temperature while full load output is maintained.
2. During the monthly generator test the diesel starting air compressor shall be checked for operation and its ability to recharge air receivers.
3. During the monthly generator test the diesel fuel oil transfer pumps shall be operated.

3.9 LIMITING CONDITION FOR OPERATION
(Cont'd.)

4.9 SURVEILLANCE REQUIREMENT
(Cont'd.)

4. Additionally, during each refueling outage, a simulated loss of off-site power in conjunction with an ECCS initiation signal test shall be performed on the 4160 volt emergency bus by:
 - (a) Verifying de-energization of the emergency buses and load shedding from the emergency buses.
 - (b) Verifying the diesel starts from ambient condition on the auto-start signal, energizes the emergency buses with permanently connected loads, 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.



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

COMMONWEALTH EDISON COMPANY

DOCKET NO. 50-249

DRESDEN NUCLEAR POWER STATION, UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 93
License No. DPR-25

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by the Commonwealth Edison Company (the licensee) dated August 26, 1986 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 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.

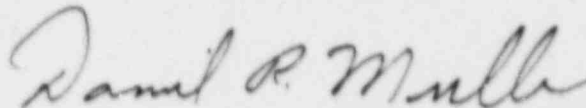
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 3.B. of Provisional Operating License No. DPR-19 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 93, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance, to be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Daniel R. Muller, Director
Project Directorate III-2
Division of Reactor Projects - III,
IV, V and Special Projects

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 19, 1988

ATTACHMENT TO LICENSE AMENDMENT NO. 93

FACILITY OPERATING LICENSE DPR-25

DOCKET NO. 50-249

Revise the Appendix A Technical Specifications by removing the pages identified below and inserting the attached pages. The revised pages are identified by the captioned amendment number and contain marginal lines indicating the area of change.

REMOVE

3/4 5-2
3/4 5-3
3/4 5-6
B 3/4 5-32
3/4 9-3
3/4 9-4
3/4 9-5
3/4 9-6

INSERT

3/4 5-2
3/4 5-3
3/4 5-6
B 3/4 5-32
3/4 9-3
3/4 9-4
3/4 9-5
3/4 9-6

3.5 LIMITING CONDITION FOR OPERATION
(Cont'd.)

4.5 SURVEILLANCE REQUIREMENT
(Cont'd.)

to a reactor
vessel
pressure of
90 psig

- c. Pump Operability Once/month
- d. Motor Operated Valve Once/month
- e. Core Spray header delta p instrumentation:
 - check Once/day
 - calibrate Once/3 months
 - test Once/3 months
- f. Logic System Functional Test Each Refueling Outage

2. From and after the date that one of the core spray subsystems is made or found to be inoperable for any reason, reactor operation is permissible only during the succeeding seven days unless such subsystem is sooner made operable, provided that during such seven days all active components of the other core spray subsystem and the LPCI subsystem and the diesel generators required for operation

2. When it is determined that one core spray subsystem is inoperable, the operable core spray subsystem and the LPCI subsystem shall be demonstrated to be operable immediately. The operable core spray subsystem shall be demonstrated to be operable daily thereafter.

3.5 LIMITING CONDITION FOR OPERATION
(Cont'd.)

of such components if no external source of power were available shall be operable.

3. Except as specified in 3.5.A.4, 3.5.A.5 and 3.5.F.3 below, the LPCI subsystem shall be operable whenever irradiated fuel is in the reactor vessel.
4. From and after the date that one of the LPCI pumps is made or found to be inoperable for any reason, reactor operation is permissible only during the succeeding thirty days unless such pump is sooner made operable, provided that during such thirty days the remaining active components of the LPCI and containment cooling subsystem and all active components of both core spray subsystems and the diesel generators required for operation of such components if no external source of power were available shall be operable.
5. From and after the date that the LPCI subsystem is made or found to be inoperable

4.5 SURVEILLANCE REQUIREMENT
(Cont'd.)

3. LPCI Subsystem Testing shall be as specified in 4.5.A.1.a, b, c, d, and f, except that three LPCI pumps shall deliver at least 14,500 gpm against a system head corresponding to a reactor vessel pressure of 20 psig.
4. When it is determined that one of the LPCI Pumps is inoperable, the remaining active components of the LPCI and containment cooling subsystem, both core spray subsystems shall be demonstrated to be operable immediately and the operable LPCI pumps daily thereafter.
5. When it is determined that the LPCI subsystem is inoperable, both core spray subsystems,

3.5 LIMITING CONDITION FOR OPERATION
(Cont'd.)

3. From and after the date that one containment cooling subsystem is made or found to be inoperable for any reason, reactor operation is permissible only during the succeeding seven days unless such subsystem is sooner made operable, provided that all active components of the other containment cooling subsystem, both core spray subsystems and both diesel generators required for operation of such components if no external source of power were available, shall be operable.
4. If the requirements of 3.5.B cannot be met an orderly shutdown shall be initiated and the reactor shall be in a Cold Shutdown condition within 24 hours.

C. HPCI Subsystem

1. Except as specified in 3.5.C.2 below, the HPCI subsystem shall be operable whenever the reactor pressure is greater than 90 psig and irradiated fuel is in the reactor vessel.

4.5 SURVEILLANCE REQUIREMENT
(Cont'd.)

3. When one containment cooling subsystem becomes inoperable, the operable subsystem shall be demonstrated to be operable immediately and the operable containment cooling subsystem daily thereafter.

C. Surveillance of HPCI Subsystem shall be performed as follows:

1. HPCI Subsystem Testing shall be as specified in 4.5.A.1.a, b, c, d, and f, except that the HPCI pump shall deliver at least 5000 gpm against a system head corresponding to a reactor vessel pressure of 1150 psig to 150 psig.

3.5 LIMITING CONDITION FOR OPERATION BASES (Cont'd)

systems will function, a daily test is called for. Although it is recognized that the information given in reference 3 provides a quantitative method to estimate allowable repair times, the lack of operating data to support the analytical approach prevents complete acceptance of this method at this time. Therefore, the times stated in the specific items were established with due regard to judgement.

Should one core spray subsystem become inoperable, the remaining core spray and the entire LPCI system are available should the reactor core cooling arise. To assure that the remaining core spray and LPCI subsystems are available they are demonstrated to be operable immediately. This demonstration includes a manual initiation of the pumps and associated valves. Based on judgements of the reliability of the remaining systems; i.e. the core spray and LPCI, a 7-day repair period was obtained.

Should the loss of one LPCI pump occur, a nearly full complement of core and containment cooling equipment is available. Three LPCI pumps in conjunction with the core spray subsystem will perform the core cooling function. Because of the availability of the majority of the core cooling equipment, which will be demonstrated to be operable, a 30-day repair period is justified. If the LPCI subsystem is not available, at least 2 LPCI pumps must be available to fulfill the containment cooling function. The 7-day repair period is set on this basis.

- B. Containment Cooling Service Water - The containment heat removal portion of the LPCI/containment cooling subsystem is provided to remove heat energy from the containment in the event of a loss of coolant accident. For the flow specified, the containment long-term pressure is limited to less than 8 psig and, therefore, is more than ample to provide the required heat removal capability. (Ref. Section 5.2.3.2 SAR).

The containment cooling subsystem consists of two sets of 2 service water pumps, 1 heat exchanger and 2 LPCI pumps. Either set of equipment is capable of performing the containment cooling function. Loss of one containment cooling service water pump does not seriously jeopardize the containment cooling capability as any 2 of the remaining three pumps can satisfy the cooling requirements. Since there is some redundancy left a 30-day repair period is adequate. Loss

3.9 LIMITING CONDITION FOR OPERATION
(Cont'd.)

4.9 SURVEILLANCE REQUIREMENT
(Cont'd.)

permissible only during the succeeding seven days unless the second line is sooner placed in service providing both the Unit 3 and Unit 2/3 emergency diesel generators are operable. From and after the date that incoming power is not available from any line, reactor operation is permissible providing both the Unit 3 and Unit 2/3 emergency diesel generators are operating and all core and containment cooling systems are operable and the NRC is notified within 24 hours of the situation, the precautions to be taken during this situation, and the plans for prompt restoration of incoming power.

2. a. From and after the date that one of the diesel generators and/or its associated bus is made or found to be inoperable for any reason, except as specified in Specification 3.9.B.2.b below, reactor operation is permissible according to Specification 3.5/4.5.F and 3.9.D only during the succeeding seven days unless such diesel generator and/or bus is sooner made

3.9 LIMITING CONDITION FOR OPERATION
(Cont'd.)

4.9 SURVEILLANCE REQUIREMENT
(Cont'd.)

operable, provided that during such seven days the operable diesel generator shall be demonstrated to be operable at least once each day and two offsite lines as specified in 3.9.A. are available.

- b. Specification 3.9.B.2.a shall not apply when a diesel generator has been made inoperable for a period not to exceed 1-1/2 hours for the purpose of conducting preventative maintenance. Additionally, preventative maintenance shall not be undertaken unless two offsite lines are available and the alternate diesel generator has been demonstrated to be operable.

3. From and after the date that one of the two 125 or 250V battery systems is made or found to be inoperable, except as specified in 3.9.B.4.a or b, Unit shutdown shall be initiated within 2 hours and the unit shall be in cold shutdown in 24 hours unless the failed battery can be sooner made operable.

4. a. Each 125 or 250 volt battery may be inoperable for a maximum of 7 days per operating cycle for maintenance and testing.

3.9 LIMITING CONDITION FOR OPERATION.
(Cont'd.)

- b. If it is determined that a battery need be replaced as a result of maintenance or testing, a specific battery may be inoperable for an additional 7 days per operating cycle.

C. Diesel Fuel

There shall be a minimum of 10,000 gallons of diesel fuel supply on site for each diesel.

D. Diesel Generator Operability

Whenever the reactor is in the Cold Shutdown or Refueling modes, a minimum of one diesel generator (either the Dresden 3 diesel generator or the Unit 2/3 diesel generator) shall be operable whenever any work is being done which has the potential for draining the vessel, secondary containment is required, or a core or containment cooling system is required.

4.9 SURVEILLANCE REQUIREMENT
(Cont'd.)

C. Diesel Fuel

Once a month the quantity of diesel fuel available shall be logged.

Once a month a sample of diesel fuel shall be checked for quality.

D. Diesel Generator Operability

1. Each diesel generator shall be manually started and loaded once each month to demonstrate operational readiness. The test shall continue until both the diesel engine and the generator are at equilibrium conditions of temperature while full load output is maintained.
2. During the monthly generator test the diesel starting air compressor shall be checked for operation and its ability to recharge air receivers.
3. During the monthly generator test the diesel fuel oil transfer pumps shall be operated.

3.9 LIMITING CONDITION FOR OPERATION
(Cont'd.)

4.9 SURVEILLANCE REQUIREMENT
(Cont'd.)

4. Additionally, during each refueling outage, a simulated loss of off-site power in conjunction with an ECCS initiation signal test shall be performed on the 4160 volt emergency bus by:

(a) Verifying de-energization of the emergency buses and load shedding from the emergency buses.

(b) Verifying the diesel starts from ambient condition on the auto-start signal, energizes the emergency buses with permanently connected loads, 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.