LIMITING CONDITION FOR OPERATION

3.9 AUXILIARY ELECTRICAL SYSTEMS

Applicability:

Applies to the auxiliary electrical power system.

Objective:

To assure an adequate supply of electrical power during plant operation.

Specification:

A. The reactor shall not be made critical unless all the following requirements are satisfied:

1. One 138 KV line, associated switchgear, and the reserve auxiliary power transformer capable of carrying power to Unit 2.

2. The Dresden 2 diesel generator and the Unit 2/3 diesel generator shall be operable.

3. An additional source of power consisting of one of the following:

   (a) One other 138 KV line, fully operational and capable of carrying auxiliary power to Unit 2.

4.9 SURVEILLANCE REQUIREMENT

4.9 AUXILIARY ELECTRICAL SYSTEMS

Applicability:

Applies to the periodic testing requirements of the auxiliary electrical system.

Objective:

Verify the operability of the auxiliary electrical system.

Specification

A. Station Batteries

1. Every week the specific gravity, voltage and temperature of the pilot cell and overall battery voltage shall be measured.

2. Every three months the measurements shall be made of voltage of each cell to nearest 0.01 volt, specific gravity of each cell, and temperature of every fifth cell.

3. Every refueling outage, the unit's batteries shall be subjected to a rated load discharge test. Determine specific gravity and voltage of each cell after the discharge.

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3.9 LIMITING CONDITION FOR OPERATION

2. **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, reactor operation is permissible according to Specification 3.5/4.5F and 3.9D only during the succeeding seven days unless such diesel generator and/or bus is sooner made 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 are available.**

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 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 refueling cycle for maintenance and testing.

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

C. Diesel Fuel

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

4.9 SURVEILLANCE REQUIREMENT

C. 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.**

Bases:

3.9

A. The general objective of this Specification is to assure an adequate source of electrical power to operate the auxiliaries during plant operation, to operate facilities to cool and lubricate the plant during shutdown, and to operate the engineered safeguards following an accident. There are three sources of electrical energy available; namely, the 138 KV transmission system, the diesel generators, and the 345 KV transmission system through the 4160 volt bus tie.

The d-c supply is required for control and motive power for switchgear and engineered safety features. The electrical power required provides for the maximum availability of power; i.e., one active off-site source and two back-up sources of off-site power and the maximum amount of on-site sources.

B. Auxiliary power for Unit 2 is supplied from two sources, either the Unit 2 auxiliary transformer or the Unit 2 reserve auxiliary transformer. Both of these transformers are sized to carry 100% of the auxiliary load. If the reserve auxiliary transformer is lost, the unit can continue to run for 7 days since the unit auxiliary transformer is available and both diesel generators are operational. A reduced period is provided since if an accident occurs during this period, the unit would trip and power to the unit auxiliary transformer would be lost and the diesels would be the only source of power.

In the normal mode of operation the 138 KV system is operating and two diesel generators are operational. One diesel generator may be allowed out of service based on the availability of power to the 138 KV switchyeard, a source of power available from the 345 KV system through a 4160 volt bus tie and the fact that one diesel carries sufficient engineered safeguards equipment to cover all breaks. Off-site power is quite reliable. In the last 25 years there has only been one instance in which all off-site power was lost at a Commonwealth Edison generating station.

Two battery chargers are supplied for each of the 125 volt batteries, while for the 250 volt system a battery charger is supplied for each battery and a third battery charger acts as a shared unit. Thus, on loss of a battery charger, another battery charger is available. Since an alternate charger is available, one battery charger per unit for the 125 volt and one battery charger overall for the 250 volt battery system can be out of service for thirty days. The system becomes inoperable whenever there is a loss of the battery or loss of both chargers for that system and a battery voltage of 105 volts for the 125 or 210 volts for the 250 volt batteries.

C. The diesel fuel supply of 10,000 gallons will supply each diesel generator with a minimum of two days of full load operation or about four days at 1/2 load. Additional diesel fuel can be obtained and delivered to the site within an 8-hour period; thus a 2-day supply provides for adequate margin.

3.6 LIMITING CONDITION FOR OPERATION

B. Pressurization Temperature

1. The reactor vessel shall be vented and power operation shall not be conducted unless the reactor vessel temperature is equal to or greater than that shown in Curve C of Figure 3.6.1. Operation for hydrostatic or leakage tests, during heatup or cooldown, and with the core critical shall be conducted only when vessel temperature is equal to or above that shown in the appropriate curve of Figure 3.6.1. Figure 3.6.1 is effective through 6 effective full power years. At least six months prior to 6 effective full power years new curves shall be submitted.

2. The reactor vessel head bolting studs shall not be under tension unless the temperature of the vessel shell immediately below the vessel flange is $\geq 100^0$F.

C. Coolant Chemistry

1. Reactor coolant activity shall not exceed 4.0 microcuries of iodine per ml of water (I-131 Dose Equivalent). If this condition is not met an orderly shutdown shall be initiated within 12 hours.

4.6 SURVEILLANCE REQUIREMENT

D. Pressurization Temperature

1. Reactor Vessel shell temperature and reactor coolant pressure shall be permanently recorded at 15 minute intervals whenever the shell temperature is below 220^0F and the reactor vessel is not vented.

2. When the reactor vessel head bolting studs are tightened or loosened the reactor vessel shell temperature immediately below the head flange shall be permanently recorded.

3. Neutron flux monitors and samples shall be installed in the reactor vessel adjacent to the vessel wall at the core midplane level. The monitor and sample program where possible conform to ASTM E 185. The monitors and samples will be removed and tested as outlined in Table 4.6.2 to experimentally verify the calculated values of integrated neutron flux that are used to determine NDTT for Figure 4.6.1.

C. Coolant Chemistry

1. a. A sample of reactor coolant shall be taken at least every 96 hours and analyzed for radioactivity.

   b. Isotopic analysis of a sample of reactor coolant shall be made at least once per month.

   c. Whenever an isotopic analysis shows reactor coolant activity exceeds 0.2 microcuries of iodine (I-131 Dose Equivalent) per ml of water, additional analyses shall be done at least every 96 hours.

3.9 LIMITING CONDITION FOR OPERATION

3.9 AUXILIARY ELECTRICAL SYSTEMS

Applicability:

Applies to the auxiliary electrical power system.

Objective:

To assure an adequate supply of electrical power during plant operation.

Specification:

A. The reactor shall not be made critical unless all the following requirements are satisfied:

1. One 345 KV line, associated switchgear, and the reserve auxiliary power transformer capable of carrying power to Unit 3.

2. The Dresden 3 diesel generator and the Unit 2/3 diesel generator shall be operable.

3. An additional source of power consisting of one of the following:

(a) One other 345 KV line, fully operational and capable of carrying auxiliary power to Unit 3.

4.9 SURVEILLANCE REQUIREMENT

4.9 AUXILIARY ELECTRICAL SYSTEMS

Applicability:

Applies to the periodic testing requirements of the auxiliary electrical system.

Objective:

Verify the operability of the auxiliary electrical system.

Specification

A. Station Batteries

1. Every week the specific gravity, voltage and temperature of the pilot cell and overall battery voltage shall be measured.

2. Every three months the measurements shall be made of voltage of each cell to nearest 0.01 volt, specific gravity of each cell, and temperature of every fifth cell.

3. Every refueling outage, the unit's batteries shall be subjected to a rated load discharge test. Determine specific gravity and voltage of each cell after the discharge.

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3.9 LIMITING CONDITION FOR OPERATION

2. **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, reactor operation is permissible according to Specification 3.5/4.5F and 3.9D only during the succeeding seven days unless such diesel generator and/or bus is sooner made 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 are available.**

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 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 refueling cycle for maintenance and testing.

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

C. Diesel Fuel

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

4.9 SURVEILLANCE REQUIREMENT

C. 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.**

Amendment No. 64

Bases:

3.9

A. The general objective of this Specification is to assure an adequate source of electrical power to operate the auxiliaries during plant operation, to operate facilities to cool and lubricate the plant during shutdown, and to operate the engineered safeguards following an accident. There are three sources of electrical energy available; namely, the 345 KV transmission system, the diesel generators, and the 138 KV transmission system through the 4160 volt bus tie.

The d-c supply is required for control and motive power for switchgear and engineered safety features. The electrical power required provides for the maximum availability of power; i.e., one active off-site source and two back-up sources of off-site power and the maximum amount of on-site sources.

B. Auxiliary power for Unit 3 is supplied from two sources, either the unit 3 auxiliary transformer or the unit 3 reserve auxiliary transformer. Both of these transformers are sized to carry 100% of the auxiliary load. If the reserve auxiliary transformer is lost, the unit can continue to run for 7 days since the unit auxiliary transformer is available and both diesel generators are operational. A reduced period is provided since if an accident occurs during this period, the unit would trip and power to the unit auxiliary transformer would be lost and the diesels would be the only source of power.

In the normal mode of operation the 345 KV system is operating and two diesel generators are operational. One diesel generator may be allowed out of service based on the availability of power to the 345 KV switchyard, a source of power available from the 138 KV system through a 4160 volt bus tie and the fact that one diesel carries sufficient engineered safeguards equipment to cover all breaks. Off-site power is quite reliable. In the last 25 years there has only been one instance in which all off-site power was lost at a Commonwealth Edison generating station.

Two battery chargers are supplied for each of the 125 volt batteries, while for the 250 volt system a battery charger is supplied for each battery and a third battery charger acts as a shared unit. Thus, on loss of a battery charger, another battery charger is available. Since an alternate charger is available, one battery charger per unit for the 125 volt and one battery charger overall for the 250 volt battery system can be out of service for thirty days. The system becomes inoperable whenever there is a loss of the battery or loss of both chargers for that system and a battery voltage of 105 volts for the 125 or 210 volts for the 250 volt batteries.

C. The diesel fuel supply of 10,000 gallons will supply each diesel generator with a minimum of two days of full load operation or about four days at 1/2 load. Additional diesel fuel can be obtained and delivered to the site within an 8-hour period; thus a 2-day supply provides for adequate margin.

3.6 LIMITING CONDITION FOR OPERATION

B. Pressurization Temperature

1. The reactor vessel shall be vented and power operation shall not be conducted unless the reactor vessel temperature is equal to or greater than that shown in Curve C of Figure 3.6.1. Operation for hydrostatic or leakage tests, during heatup or cooldown, and with the core critical shall be conducted only when vessel temperature is equal to or above that shown in the appropriate curve of Figure 3.6.1. Figure 3.6.1 is effective through 6 effective full power years. At least six months prior to 6 effective full power years new curves shall be submitted.

2. The reactor vessel head bolting studs shall not be under tension unless the temperature of the vessel shell immediately below the vessel flange is $\geq 100^0$F.

C. Coolant Chemistry

1. Reactor coolant activity shall not exceed 4.0 microcuries of iodine per ml of water (I-131 Dose Equivalent). If this condition is not met an orderly shutdown shall be initiated within 12 hours.

4.6 SURVEILLANCE REQUIREMENT

D. Pressurization Temperature

1. Reactor Vessel shell temperature and reactor coolant pressure shall be permanently recorded at 15 minute intervals whenever the shell temperature is below 220^0F and the reactor vessel is not vented.

2. When the reactor vessel head bolting studs are tightened or loosened the reactor vessel shell temperature immediately below the head flange shall be permanently recorded.

3. Neutron flux monitors and samples shall be installed in the reactor vessel adjacent to the vessel wall at the core midplane level. The monitor and sample program where possible conform to ASTM E 185. The monitors and samples will be removed and tested as outlined in Table 4.6.2 to experimentally verify the calculated values of integrated neutron flux that are used to determine NDTT for Figure 4.6.1.

C. Coolant Chemistry

1. a. A sample of reactor coolant shall be taken at least every 96 hours and analyzed for radioactivity.

   b. Isotopic analysis of a sample of reactor coolant shall be made at least once per month.

   c. Whenever an isotopic analysis shows reactor coolant activity exceeds 0.2 microcuries of iodine (I-131 Dose Equivalent) per ml of water, additional analyses shall be done at least every 96 hours.

ATTACHMENT 3

Evaluation of Significant Hazards Consideration

Description of Amendment Request

Changes were made to Appendix A providing additional limiting conditions of operations surveillance requirements in both the 125 and 250 volt batteries. These changes are being made as a commitment to resolve SEP Topic VI-7.C.1. In addition, the LCO and the surveillance requirements for reactor coolant activity was changed from gross iodine limit to a Iodine-131 dose equivalent. A description of each change is provided in Attachment 1 of this letter.

Basis for Proposed No Significant Hazards Consideration Determination

The Commission has provided guidance considering the application of standards for determining whether a significant hazards consideration exists by providing certain examples (48 FR 14870). Two examples involving no significant hazards consideration include: (i) a thoroughly administrative change to Technical Specifications; for example, a change to achieve consistency throughout the technical specification, correction of an error, or a change in nomenclature; and, (ii) a change that constitutes an additional limitation restriction, or control not presently included in the technical specifications: for example, a more strigent surveillance requirement.

We believe the proposed changes proposed in this amendment request fall within those two examples. Some of the proposed changes are to standardize wording and clarify existing technical specifications. These changes clearly are administrative and encompassed by example (i) above. In addition the proposed changes adding to surveillance requirements and limiting conditions of operation for both the 125 volt and the 250 volt batteries and the reactor coolant activity would impose more strigent surveillance requirements than presently included in the technical specification and thereby are encompassed by example (ii) above.

Only one change - surveillance requirement 4.9.A.1 which clarifies the requirement to take a temperature of the pilot cell and not the adjacent cells during the weekly surveillance may be construed as not falling within the two examples noted above. That change would clearly fall within the example (vi) which states: that where a change "may reduce in some way a safety margin, but where the results of the change are clearly within all acceptable criteria with respect to the system or component..." It is clearly applicable as the change meets all appropriate IEEE standards and is in accordance with the Standard Technical specifications.

Therefore, since the application for amendment involves proposed changes that are similar to an examples for which no significant hazards consideration exists, Commonwealth Edison has made a proposed determination that the application involves no significant hazards consideration.