



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

POWER AUTHORITY OF THE STATE OF NEW YORK

DOCKET NO. 50-286

INDIAN POINT NUCLEAR GENERATING UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 198
License No. DPR-64

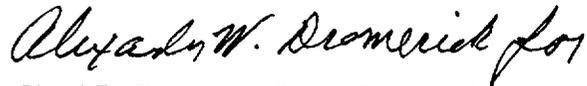
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Power Authority of the State of New York (the licensee) dated April 6, 1999, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's 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 2.C.(2) of Facility Operating License No. DPR-64 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 198 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 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



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Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical Specifications

Date of Issuance: December 7, 1999

ATTACHMENT TO LICENSE AMENDMENT NO. 198

FACILITY OPERATING LICENSE NO. DPR-64

DOCKET NO. 50-286

Replace the following page of the Appendix A Technical Specifications with the attached revised page. The revised page is identified by amendment number and contain marginal lines indicating the areas of change.

Remove Page

3.7-1
3.7-2
3.7-3a
3.7-4

Insert Page

3.7-1
3.7-2
3.7-3a
3.7-4

3.7 AUXILIARY ELECTRICAL SYSTEMS

Applicability

Applies to the availability of electrical power for the operation of plant auxiliaries.

Objective

To define those conditions of electrical power availability necessary (1) to provide for safe reactor operation, and (2) to provide for the continuing availability of engineered safety features.

Specification

- A. The reactor shall not be brought above the cold shutdown condition unless the following requirements are met:
1. Two physically independent transmission circuits to Buchanan Substation capable of supplying engineered safeguards loads.
 2. 6.9 KV buses 5 and 6 energized from either 138 KV feeder 95331 or 95332.
 3. Either 13.8 KV feeder 13W92 or 13W93 and its associated 13.8/6.9 KV transformer available to supply 6.9 KV power.
 4. The four 480-volt buses 2A, 3A, 5A and 6A energized and the bus tie breakers between buses 5A and 2A, and between buses 3A and 6A, opened.
 5. Three diesel generators operable with a minimum onsite supply of 6671 gallons of fuel for each of three diesel generators. In addition 30,026 gallons of fuel compatible for operation with the diesels shall be available onsite or at the Buchanan substation. This 30,026 gallon reserve is for Indian Point Unit No. 3 usage only and is in addition to the fuel requirements for other nuclear units on site.

6. Three batteries plus three chargers and the D.C. distribution systems operable.
 7. No more than one 120 volt A.C. Instrument Bus on the backup power supply.
- B. The requirements of 3.7.A may be modified to allow any one of the following power supplies to be inoperable at any one time.
1. One diesel or any diesel fuel oil system or a diesel and its associated fuel oil system may be inoperable for up to 72 hours* provided the 138 KV and the 13.8 KV sources of offsite power are available, and the engineered safety features associated with the remaining diesel generator buses are operable. If the inoperable diesel generator became inoperable due to any cause other than preplanned maintenance or testing, then within 24 hours, either:
 - a. Determine by evaluation, that the remaining operable diesel generators are not inoperable due to common-cause failure.

OR

 - b. Verify by testing, that the remaining diesel generators are operable.
 2. The 138 KV or the 13.8 KV sources of power may be inoperable for 48 hours provided the three diesel generators are operable. This operation may be extended beyond 48 hours provided the failure is reported to the NRC within the 48 hour period with an outline of the plans for restoration of offsite power and NRC approval is granted.

* 32 diesel generator fuel oil storage tank may be inoperable and the 32 diesel generator may be declared technically inoperable, but available and capable of automatic start, for up to 7 days, one-time if needed, during 1999 and prior to Refueling Outage RO-10. This condition may only be invoked to inspect/repair the 32 diesel fuel oil storage tank if deemed necessary based on concerns with water in-leakage. The following additional requirements shall also be met to invoke this extended one-time allowed outage time: (1) performance of offsite power source switching or maintenance evolutions for technical specification required offsite power sources shall not be scheduled during this 32 FOST outage, and (2) this 32 FOST outage shall not be scheduled during predicted severe weather.

3.7-2

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4. Two operable diesel generators together with total storage containing a minimum of 6671 gallons of fuel.

It is permissible to have only one operable diesel generator together with total underground storage containing a minimum of 6671 gallons of fuel provided that: (1) the reactor is in cold shutdown or refueling and has been subcritical for at least 5 days AND (2) the water level in the refueling cavity above the top of the reactor vessel flange is equal to or greater than 23 feet OR no fuel is in the reactor or refueling cavity AND (3) the necessary portion of AC, DC and 120 VAC vital instrument bus electrical power distribution subsystems shall be operable to support equipment required to be operable.

5. If either of the required diesel generators specified in 3.7.F.4 are not operable, when two are required to be operable, then the following actions should be pursued without delay and in a controlled manner:
 - a. Initiate action to suspend operations involving positive reactivity additions. However, this does not preclude actions to maintain or increase reactor vessel or reactor cavity inventory provided the required SDM is maintained.
AND
 - b. Initiate actions to restore the required diesel generator to operable status.

6. If the one required diesel generator specified in 3.7.F.4 OR the offsite power source specified in 3.7.F.2 OR the necessary portion of AC, DC and 120 VAC vital instrument bus electrical power distribution subsystems specified in 3.7.F.4 is not operable, then the following actions should be pursued without delay and in a controlled manner:
 - a. Suspend all core alterations.
AND
 - b. Suspend movement of irradiated fuel assemblies.
AND
 - c. Initiate actions to suspend operations involving positive reactivity additions. However, this does not preclude actions to maintain or increase reactor vessel or reactor cavity inventory provided the required SDM is maintained.
AND
 - d. Initiated action to restore the required diesel generator or offsite power source or the necessary portion of AC, DC and 120 VAC vital instrument bus electrical power distribution subsystems to operable status.

3.7-3a

The bus arrangements specified for operation ensure that power is available to an adequate number of safeguards auxiliaries. With additional switching, more equipment could be out of service without infringing on safety. In the case of a Loss of Offsite Power (LOOP) event when the reactor has been subcritical for at least 5 days and only one diesel generator is operable, having two of the four 480-volt buses energized means the single, operable diesel generator would energize its associated 480-volt bus. The other 480-volt buses would subsequently be energized by this single diesel generator through manual closure of 480-volt bus tie breakers as required for safe shutdown load management purposes.

Two diesel generators have sufficient capacity to start and run within design load the minimum required engineered safeguards equipment.⁽¹⁾ The minimum onsite stored diesel fuel oil inventory is maintained at all times, normally in underground storage tanks, to assure the operation of two diesels carrying the minimum required engineered safeguards equipment load for at least 48 hours.⁽²⁾ The minimum required storage tank volume (when above cold shutdown) of 6671 gallons is the minimum volume required when sounding the tanks to obtain level information. This volume includes allowances for fuel not usable due to the oil transfer pump cutoff switch (760 gallons) and a safety margin (20 gallons). If the installed level indicators are used to measure tank volume, 6721 gallons of oil (6671 gallons plus the 50 gallon uncertainty associated with the level indicators) must be in each storage tank.

When in cold shutdown, two diesel generators must be operable with a total storage of 6671 gallons of fuel oil. Only one diesel generator is required to be operable in cold shutdown or refueling, when: (1) The reactor has been subcritical for 5 days or greater, because it is able to power the necessary safe shutdown loads and maintain diesel loading within the 1750 KW continuous loading and 2 hour 1950 KW peak loading requirements. The reactor being subcritical for at least 5 days provides for operator action, in the case of a LOOP, to manually restore decay heat removal loads prior to heatup from 140 to 200 degrees F occurring when the reactor cavity is flooded up or the spent fuel pool is completely loaded with fuel; (2) The reactor cavity is flooded to at least 23 feet above the flange OR no fuel in the reactor or cavity. This accounts for having sufficient water inventory for effective decay heat removal until RHR or Spent Fuel Pool cooling can be restored in the case of a LOOP event with one operable EDG. Operators are expected to restore RHR or Spent Fuel Pool cooling in the case of a LOOP event well within the 3 hours plus allowable time frame, which provides sufficient margin in the worst case when in cold shutdown and the reactor has been subcritical for 5 days. It is acceptable for 480V emergency power trains to be cross tied during cold shutdown and refueling conditions, allowing a single power circuit to supply all required trains;

(3) The necessary portion of the AC, DC and 120 VAC vital instrument bus electrical power distribution subsystems is operable. This provides assurance that: (a) Systems which provide adequate coolant inventory makeup are available for the irradiated fuel assemblies in the core, Systems needed to mitigate a fuel handling accident are available, (c) Systems necessary to mitigate the effects of events that can lead to core damage during shutdown are available and (d) Instrumentation and control capability is available for monitoring and maintaining the unit in a cold shutdown or refueling condition.

The Action Statements listed in LCO 3.7.F.5 and 3.7.F. 6 are provided for specific operator actions which are to be pursued without delay in response to the loss of a required on-site EDG power source or loss of required offsite power supply feeder or loss of a necessary portion of the AC, DC and 120 VAC vital instrument bus electrical power distribution subsystems. With the required on-site EDG(s), offsite power supply feeders, or necessary portion of the AC, DC and 120VAC vital instrument bus electrical power distribution subsystems inoperable, the minimum required diversity of AC power sources is not available. It is therefore required to suspend core alterations, movement of irradiated fuel assemblies, and operations involving positive reactivity additions. Suspension of these activities does not preclude completion of those actions necessary to establish a safe condition. These actions minimize the probability or the occurrence of postulated events. It is further required to initiate action to restore the required electrical sources or necessary electrical power distribution subsystems and to continue this action until restoration is accomplished in order to provide the necessary electrical power to the required safety systems.

The same methodology used to measure fuel volume above cold shutdown should be used. Additional fuel oil suitable for use in the diesel generators will be stored either on site or at the Buchanan Substation. The minimum storage of 30,026 gallons of additional fuel oil will assure continuous operation of two diesels at the minimum engineered safeguards load for a total of 7 days. A truck with hosing connections compatible with the diesel fuel oil storage tanks is available for transferal of diesel oil from storage areas either on site or at the Buchanan Substation. Commercial oil supplies and trucking facilities are also available.

Specification 3.7.B.1.a provides an allowance to avoid unnecessary testing of operable emergency diesel generators (EDG) upon discovery of an inoperable EDG (Reference 3). If it can be determined by evaluation that the cause of the inoperable EDG does not exist on the operable EDGs, the operability test for those EDGs does not have to be performed. If the cause of inoperability does exist on one or both of the other EDGs, the affected EDG(s) would be declared inoperable upon discovery and Specification 3.7.C would be entered. If the cause of the initial inoperable EDG cannot be confirmed not to exist on the remaining EDGs, performance of the surveillance test that starts the affected EDG(s) suffices to provide assurance of continued operability of those EDGs.

3.7-4a

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