

ATTACHMENT I

Proposed Technical Specifications Changes

8/17

New York Power Authority
Indian Point 3 Nuclear Power Plant
Docket No. 50-286
December 3, 1984

8412110348 841203
PDR ADDCK 05000286
PDR
P

4. Two operable diesel generators together with total underground storage containing a minimum of 5676 gallons of fuel.

G. When a system, subsystem, train, component or device is determined to be inoperable solely because its emergency power source is inoperable, or solely because its normal power source is inoperable, it may be considered operable for the purpose of satisfying the requirements of its applicable specification provided: (1) its corresponding normal or emergency power source is operable; and (2) all of its redundant system(s), subsystem(s), train(s), components(s) and device(s) are operable or likewise satisfy the requirements of the specification.

Basis

The electrical system equipment is arranged so that no single contingency can inactivate enough safeguards equipment to jeopardize the plant safety. The 480-volt equipment is arranged on 4 buses. The 6900-volt equipment is supplied from 6 buses.

The Buchanan Substation has both 345 KV and 138 KV transmission circuits which are capable of supplying startup, normal operation, shutdown and/or engineered safeguards loads.

The 138 KV supplies or the gas turbines are capable of providing sufficient power for plant startup. Power via the station auxiliary transformer can supply all the required plant auxiliaries during normal operation, if required.

In addition to the unit transformer, four separate sources supply station service power to the plant.⁽¹⁾

Any two of three diesel generators, the station auxiliary transformer or the separate 13.8 to 6.9 KV transformer are each capable of supplying the minimum safeguards loads, and therefore provide separate sources of power immediately available for operation of these loads. Thus the power supply system meets the single failure criteria required of safety systems. To provide maximum assurance that the redundant or alternate power supplies will operate if required to do so, the redundant or alternate power supplies are verified operable prior to initiating repair of the inoperable power supply. Continued plant operation is governed by the specified allowable time period for the power source, not the specified allowable time period for those items determined to be inoperable solely because of the inoperability of its normal or emergency power source provided the conditions defined in specification 3.7.G are satisfied. These conditions assure that the minimum required safeguards will be operable. If it develops that (a) the inoperable power supply is not repaired within the specified allowable time period, or (b) a second power supply in the same or related category is found to be inoperable, the reactor, if critical, will initially be brought to the hot shutdown condition utilizing normal operating procedures to provide for reduction of the decay heat from the fuel, and consequent reduction of cooling requirements after a postulated loss-of-coolant accident. If the reactor was already subcritical, the reactor coolant system temperature and pressure will be maintained within the stated values in order to limit the amount of stored energy in the Reactor Coolant System. The stated tolerances provide a band for operator control. After a limited time in hot shutdown, if the malfunction(s) are not corrected, the reactor will be brought to the cold shutdown condition, utilizing normal shutdown and cool-down procedures. In the cold shutdown condition there is no possibility of an accident that would release fission products or damage the fuel elements.

Conditions of a system-wide blackout could result in a unit trip. Since normal off-site power supplies as required in Specification 3.7.A.1 are not available for startup, it is necessary to be able to black start the unit with gas turbines providing the incoming power supplies as a first step in restoring the system to an operable status and restoring power to customers for essential services. Specification 3.7.C provides for startup using 37 MW's of gas turbine power (nameplate rating at 80°F) which is sufficient to carry out a normal plant startup. A system-wide blackout is deemed to exist when the majority of Con Edison electric generating facilities are shutdown due to an electrical disturbance and the remainder are incapable of supplying the system therefore necessitating major load shedding.

Since the backup lighting supply is stripped on safety injection, the requirement that not more than one 120 volt A.C. instrument bus be energized from the backup lighting supply is to assure minimum operable containment spray actuation channels.

As a result of an investigation of the effect components that might become submerged following a LOCA may have on ECCS, containment isolation and other safety-related functions, a fuse and a locked open circuit breaker were provided on the electrical feeder to emergency lighting panel 318 inside containment. With the circuit breaker in the open position, containment electrical penetration H-70 is de-energized during the accident condition. Personnel access to containment may be required during power operation. Since it is highly improbable that a LOCA would occur during this short period of time, the circuit breaker may be closed during that time to provide emergency lighting inside containment for personnel safety.

References

- 1) FSAR - Section 8.2.1
- 2) FSAR - Section 8.2.3

ATTACHMENT II

Safety Evaluation of ^{the} Proposed Technical Specifications

New York Power Authority
Indian Point 3 Nuclear Power Plant
Docket No. 50-286
December 3, 1984

I. Description of Change

This revision to the Indian Point 3 Technical Specifications seeks to revise Section 3.7 in order to define the operability criteria of equipment when its emergency power source or normal power source is inoperable.

II. Evaluation of Change

The proposed Technical Specifications changes as indicated in Attachment I are in accordance with the Model Technical Specifications provided by the April 10, 1980 NRC letter regarding the use of the term "operable" as it applies to the single failure criteria for safety systems. The definition of "operable" as provided by Technical Specification 1.5 would render inoperable all systems, subsystems, trains, components and devices supplied by the inoperable power source. Proposed Technical Specification 3.7.G allows plant operation to be governed by the time limits of the specifications for the normal or emergency power source, not the individual specifications for each system, subsystem, train component or device that is determined to be inoperable solely because of the inoperability of its normal or emergency power source.

The Authority considers that the proposed changes can be classified as not likely to involve significant hazards considerations since the proposed changes constitute "a change to make a license conform to changes in the regulations, where the license change results in very minor changes to facility operations clearly in keeping with the regulations." (Example (vii), Federal Register, Vol. 48, No. 67 dated April 6, 1983, page 14870).

III. IMPACT OF CHANGE

This change will not impact the following:

- ALARA Program
- Fire Protection Program
- Emergency Plan
- FSAR or SER Conclusions
- Overall Plant Operations

IV. CONCLUSION

The incorporation of these modifications: a) will not increase the probability nor the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the Safety Analysis Report; b) will not increase the possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report; c) will not reduce the margin of safety as defined in the basis for any Technical Specification; d) does not constitute an unreviewed safety question as defined in 10 CFR 50.59; e) involves no significant hazards considerations as defined in 10 CFR 50.92.

V REFERENCES

- (a) IP-3 FSAR
- (b) IP-3 SER