ATTACHMENT I

PROPOSED TECHNICAL SPECIFICATION CHANGES

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
DOCKET NO. 50-286
April, 1982

and is in addition to the fuel requirements for other nuclear units on the 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 remaining diesel generators are tested daily to ensure operability and the engineered safety features associated with these diesel generator buses 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.

3. If the 138 KV power source is lost and the 13.8KV power source is being used to feed Buses 5 and 6, in addition to satisfying the requirements of specification 3.7.B.2 above, the 6.9 KV bus tie breaker control switches 1-5, 2-5, 3-6, and 4-6 in the CCR shall be placed in the "pull-out" position to prevent an automatic transfer of the 6.9 KV buses 1, 2, 3 and 4.

4. One battery may be inoperable for 2 hours provided the other batteries and the three battery chargers remain operable with one battery charger carrying the D. C. load of the failed battery supply system.

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 and 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.

When the 138 KV source of offsite power is out of service and the 13.8KV power source is being used to feed Buses 5 and 6, the automatic transfer of 6.9 KV Buses 1, 2, 3 and 4 to offsite power after a unit trip could result in overloading of the 20 MVA 13.8 KV/6.9 KV auto-transformer. Accordingly, the intent of specification 3.7.B.3 is to prevent the automatic transfer when only the 13.8 KV source of offsite power is available. However, this specification is not intended to preclude subsequent manual operations or bus transfers once sufficient loads have been stripped to assure that the 20 MVA auto-transformer will not be overloaded by these manual actions.

References

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

Amendment No.

TABLE 3.5-1

ENGINEERED SAFETY FEATURES INITIATION INSTRUMENT SETTING LIMITS

No.	FUNCTIONAL UNIT	CHANNEL	SETTING LIMIT
1.	High Containment Pressure (Hi Level)	Safety Injection	$\leq$3.5 psig
2.	High Containment Pressure (Hi-Hi Level)	a. Containment Spray	$\leq$23 psig
		b. Steam Line Isolation	
3.	Pressurizer Low Pressure	Safety Injection	$\geq$1700 psig
4.	High Differential Pressure Between Steam Lines	Safety Injection	$\leq$150 psi
5.	High Steam Flow in 2/4 Steam Lines Coicident with Low T_{avg} of Low Steam Line Pressure	a. Safety Injection	$\leq$40% of full steam flow at zero load
		b. Steam Line Isolation	$\leq$40% of full steam flow at 20% load
			$\leq$110% of full steam flow at full load
			$\geq$540°F T_{avg}
			$\geq$600 psig steam line pressure
6.	Steam Generator Water Level (low-low)	Auxiliary Feedwater	$\geq$5% of narrow range instrument span each steam generator
7a.	480v Bus Undervoltage Relay	-	$\geq$200v*
7b.	480v Bus Degraded Voltage Relay	-	$\geq$398v with $\leq$ 210 sec. time delay

*The undervoltage protection devices used for diesel generator starting are induction type disc relays, therefore, the time to actual trip will decrease as a function of voltage decrease below the setpoint.

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TABLE 3.5-3 (SHEET 3 of 3)

FUNCTIONAL UNIT	1	2	3	4	5
3. AUXILIARY FEEDWATER					
a. Stm Gen. Water Level-Low-Low					
i. Start Motor Driven Pumps	3/stm. gen	2 in any stm gen.	2 chan. in each stm gen	1	Reduce system temperature such that $T \leq 350^{\circ}F$
ii. Start Turbine-Driven Pump	3/stm. gen	2/3 in each of two stm. gen.	2 chan. in each stm. gen.	1	$T \leq 350^{\circ}F$
b. S. I. Start Motor-Driven Pumps	(All safety injection initiating functions and requirements)				
c. Station Blackout Start Turbine-Driven Pump	2	1	1	0	$T \leq 350^{\circ}F$
d. Trip of Main Feedwater Pumps start Motor-Driven Pumps	2	1	1	0	Hot Shutdown
4. CONTAINMENT VENT AND PURGE					
a. Containment Radioactivity-High	2	1	1	0	Close all containment vent and purge valves
5. LOSS OF POWER					
a. 480v Bus Undervoltage Relay	2/bus	1/bus	1/bus	0	See Note 1
b. 480v Bus Degraded Voltage Relay	2/bus	2/bus	2/bus (See Note 2)	0	See Note 1

Note 1. If the 138KV and 13.8KV sources of offsite power are available and the conditions of column 3 or 4 cannot be met within 72 hours, then the requirements of 3.7.C.1 or 2 shall be met.

Note 2. If one channel becomes inoperable, it is placed in the trip position and the number of minimum operable channels is reduced by one.

TABLE 4.1-1 (SHEET 4 of 4)

CHANNEL DESCRIPTION	CHECK	CALIBRATE	TEST	REMARKS
29. Reactor Coolant System Subcooling Margin Monitor	D	R	N.A.	
30. PORV Position Indicator (Limit Switch)	N.A.	R	R	
31. PORV Position Indicator (Acoustic Monitor)	D	R	R	
32. Safety Valve Position Indicator (Acoustic Monitor)	D	R	R	
33. Auxiliary Feedwater Flow Rate	N.A.	R	N.A.	
34. Loss of Power				
a. 480v Bus Undervoltage Relay	N.A.	R	R	
b. 480v Bus Degraded Voltage Relay	N.A.	R	R	

S- Each Shift
D- Daily
W- Weekly
M- Monthly
P- Prior to each startup if not done previous week
Q- Quarterly
R- Each Refueling Outage
NA- Not applicable

ATTACHMENT II

SAFETY EVALUATION

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
DOCKET NO. 50-286
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SECTION I - DESCRIPTION OF MODIFICATION

This application seeks to amend Section 3.7.B, and Tables 3.5-1, 3.5-3 and 4.1-1 of Appendix A to the Operating License. The proposed changes to Tables 3.5-1, 3.5-3 and 4.1-1 of the Technical Specifications consist of the addition of relay setpoints, time delays, testing intervals and calibration intervals for the 480v Emergency Buses. In addition, the setting limit for the 480v Bus undervoltage Relay, item 7 of Table 3.5-1, has been increased from $\geq$ 40% of nominal voltage, to a more conservative $\geq$ 200 volts setting limit. Minor administrative changes are also included in this submittal.

The proposed change to Technical Specification 3.7.B would add a requirement that a bus automatic fast transfer be prevented by the operator by placing the 6.9KV bus tie breakers' control switches in the "pull-out" position whenever the 138KV power source is lost and the 13.8KV power source is being used to feed Buses 5 and 6.

SECTION II - PURPOSE OF MODIFICATION

The purpose of this modification is to provide protection for the degraded grid voltage condition. The proposed voltages, and time delay settings of the degraded voltage relays will provide adequate protection for the safety-related loads at all onsite system distribution levels within the expected off-site grid voltage limits. The proposed requirement to prevent a bus automatic fast transfer whenever the 138KV power source is lost will prevent an automatic transfer of 6.9KV buses 1, 2, 3, and 4 to offsite power which could result in overloading of the 20 MVA 13.8KV/6.9KV auto-transformer.

SECTION III - IMPACT OF THE CHANGE

This modificaion will not alter the conclusions reached in the FSAR and SER accident analysis, nor will it impact operations at Indian Point Unit 3.

SECTION IV - IMPLEMENTATION OF THE MODIFICATION

The modification as proposed will not impact the ALARA or Fire Protection Program at IP3.

SECTION V - CONCLUSION

The implementation of this modification: 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, and d) does not constitute an unreviewed safety question.

SECTION VI - REFERENCES

(a) IP3 FSAR

(b) IP3 SER

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