ATTACHMENT I

PROPOSED TECHNICAL SPECIFICATION CHANGES

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
INDIAN POINT UNIT NO. 2
DOCKET NO. 50-247
JULY 1999

Attachment I is divided into two parts:

1) Tech Spec Table 3.5-3

2) Tech Spec Table 4.1-1

Part 1 is subdivided into 3 segments:

a) Tech Spec Table 3.5-3, if the changes are approved and issued prior to the proposed changes in the Con Edison May 5, 1999 submittal.

b) Tech Spec Table 3.5-3, if the changes are approved and issued concurrent with the proposed changes in the Con Edison May 5, 1999 submittal.

c) Tech Spec Table 3.5-3, if the changes are approved and issued subsequent to the proposed changes in the Con Edison May 5, 1999 submittal.

Please note that the differences between item b and c, is the number of revision bars.

Part 1.a

Technical Specification Table 3.5-3.

If the changes are approved and issued prior to the proposed changes in the Con Edison May 5, 1999 submittal.

Table 3.5-3

Instrumentation Operating Conditions for Engineered Safety Features

No.	Functional Unit	1 No. of Channels	2 No. of Channels to Trip	3 Min. Operable Channels	4 Min. Degree of Redundancy	5 Operator Action if Conditions of Column 3 or 4 Cannot be Met
1	Safety Injection					
a.	Manual	2	1	1	0	Cold shutdown
b.	High Containment Pressure (Hi Level)	3	2	2	1	Cold shutdown
c.	High Differential Pressure Between Steam Lines	3/steam line	2/steam line	2/steam line	1/steam line	Cold shutdown
d.	Pressurizer Low Pressure*	3	2	2	1	Cold shutdown
e.	High Steam Flow in 2/4 Steam Lines Coincident	2/line	1/2 in any 2 lines	1/line in each of 3 lines	2	Cold shutdown
	With Low T_{avg} or Low Steam Line Pressure	4 T_{avg} Signals	2	3	2	
		4 Pressure Signals	2	3	2	

* Permissible bypass if reactor coolant pressure less than 2000 psig.

Table 3.5-3

Instrumentation Operating Conditions for Engineered Safety Features

No.	Functional Unit	1 No. of Channels	2 No. of Channels to Trip	3 Min. Operable Channels	4 Min. Degree of Redundancy	5 Operator Action if Conditions of Column 3 or 4 Cannot be Met
2.	Containment Spray					
a.	Manual	2	1	1	0	Cold shutdown
b.	High Containment Pressure (Hi-Hi Level)	2 sets of 3	2 of 3 in each set	2 per set	1/set	Cold shutdown
3.	Loss Of Power					
a.	480V Emergency Bus Undervoltage (Loss of Voltage)	2/bus	1/bus	1/bus	0	Cold shutdown
b.	480V Emergency Bus Undervoltage (Degraded Voltage)	2/bus	2/bus	1/bus	0	See Note
4.	Auxiliary Feedwater					
a.	Steam 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 RCS temperature such that T < 350°F

Table 3.5-3

Instrumentation Operating Conditions for Engineered Safety Features

No.	Functional Unit	1 No. of Channels	2 No. of Channels to Trip	3 Min. Operable Channels	4 Min. Degree of Redundancy	5 Operator Action if Conditions of Column 3 or 4 Cannot be Met
	ii. Start Turbine-Driven Pump	3/stm gen.	2/3 in each of two stm gen.	2 chan. in each stm gen.	1	T < 350°F
b.	S.I. Start Motor-Driven Pumps	(All safety injection initiating functions and requirements)				
c.	Station Blackout Start Motor-Driven and Turbine-Driven Pumps	2	1	1	0	T < 350°F
d.	Trip of Main Feedwater Pumps Start Motor-Driven Pumps	2	1	1	0	Hot shutdown
5.	Overpressure Protection System (OPS)	3	2	2	1	Refer to Specification 3.1.A.4

Table 3.5-3

Instrumentation Operating Conditions for Engineered Safety Features

Note: a) If the 138kV source of offsite power and the 13.8kV source of offsite power are available:
1) Both channels may be inoperable on one bus for a period not to exceed 72 hours;
2) If one channel is inoperable after 72 hours, place the inoperable channel in trip;
3) If both channels are inoperable after 72 hours, proceed to cold shutdown.

b) If the 138kV source of offsite power or the 13.8kV source of offsite power is not available:
1) If one channel is inoperable, place the inoperable channel in trip;
2) If both channels are inoperable, proceed to cold shutdown.

Part 1.b

Technical Specification Table 3.5-3.

If the changes are approved and issued concurrent with the proposed changes in the Con Edison May 5, 1999 submittal.

Table 3.5-3

Instrumentation Operating Conditions for Engineered Safety Features

No.	Functional Unit	1 No. of Channels	2 No. of Channels to Trip	3 Min. Operable Channels	4 Min. Degree of Redundancy	5 Operator Action if Conditions of Column 3 Cannot be Met	6 Operator Action if Conditions of Column 4 Cannot be Met
1	Safety Injection						
a.	Manual	2	1	1	0	Cold shutdown	Same as Column 5
b.	High Containment Pressure (Hi Level)	3	2	2	1	Cold shutdown	(1)
c.	High Differential Pressure Between Steam Lines	3/steam line	2/steam line	2/steam line	1/steam line	Cold shutdown	(1)
d.	Pressurizer Low Pressure*	3	2	2	1	Cold shutdown	(1)
e.	High Steam Flow in 2/4 Steam Lines Coincident	2/line	1/2 in any 2 lines	1/line in each of 3 lines	2	Cold shutdown	(1)
	With Low T_{avg} or Low Steam Line Pressure	4 T_{avg} Signals	2	3	2		
		4 Pressure Signals	2	3	2		

* Permissible bypass if reactor coolant pressure less than 2000 psig.

Table 3.5-3

Instrumentation Operating Conditions for Engineered Safety Features

No.	Functional Unit	1 No. of Channels	2 No. of Channels to Trip	3 Min. Operable Channels	4 Min. Degree of Redun-dancy	5 Operator Action if Conditions of Column 3 Cannot be Met	6 Operator Action if Conditions of Column 4 Cannot be Met
2.	Containment Spray						
a.	Manual	2	1	1	0	Cold shutdown	Same as Column 5
b.	High Containment Pressure (Hi-Hi Level)	2 sets of 3	2 of 3 in each set	2 per set	1/set	Cold shutdown	(1)
3.	Loss Of Power						
a.	480V Emergency Bus Undervoltage (Loss of Voltage)	2/bus	1/bus	1/bus	0	Cold shutdown	Same as Column 5
b.	480V Emergency Bus Undervoltage (De-graded Voltage)	2/bus	2/bus	1/bus	0	(3)	Same as Column 5
4.	Auxiliary Feedwater						
a.	Steam 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 RCS temperature such that T < 350°F	(2)

Table 3.5-3

Instrumentation Operating Conditions for Engineered Safety Features

No.	Functional Unit	1 No. of Channels	2 No. of Channels to Trip	3 Min. Operable Channels	4 Min. Degree of Redundancy	5 Operator Action if Conditions of Column 3 Cannot be Met	6 Operator Action if Conditions of Column 4 Cannot be Met
	ii Start Turbine-Driven Pump	3/stm gen.	2/3 in each of two stm gen.	2 chan. in each stm gen.	1	T < 350°F	(2)
b.	S.I. Start Motor-Driven Pumps	(All safety injection initiating functions and requirements)					
c.	Station Blackout Start Motor-Driven and Turbine-Driven Pumps	2	1	1	0	T < 350°F	Same as Column 5
d.	Trip of Main Feed-water Pumps Start Motor-Driven Pumps	2	1	1	0	Hot shutdown	Same as column 5
5.	Overpressure Protection System (OPS)	3	2	2	1	Refer to Specification 3.1.A.4	Same as Column 5
6.	Engineered Safety Features (SI) Logic	2	1	2#	1#	Be in Hot shutdown within the next 6 hours	Same as column 5

Table 3.5-3

Instrumentation Operating Conditions for Engineered Safety Features

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An Engineered Safety Feature (SI) logic channel may be bypassed for maintenance for up to 24 hours or surveillance testing for up to eight hours provided the redundant logic channel is operable.

(1) Restore all channels as required by column 1 to an OPERABLE status within 72 hours or place the inoperable channel in trip. Otherwise, proceed to cold shutdown.

(2) Restore all channels as required by column 1 to an OPERABLE status within 72 hours or place the inoperable channel in trip. Otherwise, reduce T_{avg} to less than 350°F.

(3)
a) If the 138kV source of offsite power and the 13.8kV source of offsite power are available:
   1) Both channels may be inoperable on one bus for a period not to exceed 72 hours;
   2) If one channel is inoperable after 72 hours, place the inoperable channel in trip;
   3) If both channels are inoperable after 72 hours, proceed to cold shutdown.

b) If the 138kV source of offsite power or the 13.8kV source of offsite power is not available:
   1) If one channel is inoperable, place the inoperable channel in trip;
   2) If both channels are inoperable, proceed to cold shutdown.

Part 1.c

Technical Specification Table 3.5-3.

If the changes are approved and issued subsequent to the proposed changes in the Con Edison May 5, 1999 submittal.

Table 3.5-3

Instrumentation Operating Conditions for Engineered Safety Features

No.	Functional Unit	1 No. of Channels	2 No. of Channels to Trip	3 Min. Operable Channels	4 Min. Degree of Redundancy	5 Operator Action if Conditions of Column 3 Cannot be Met	6 Operator Action if Conditions of Column 4 Cannot be Met
1	Safety Injection						
a.	Manual	2	1	1	0	Cold shutdown	Same as Column 5
b.	High Containment Pressure (Hi Level)	3	2	2	1	Cold shutdown	(1)
c.	High Differential Pressure Between Steam Lines	3/steam line	2/steam line	2/steam line	1/steam line	Cold shutdown	(1)
d.	Pressurizer Low Pressure*	3	2	2	1	Cold shutdown	(1)
e.	High Steam Flow in 2/4 Steam Lines Coincident	2/line	1/2 in any 2 lines	1/line in each of 3 lines	2	Cold shutdown	(1)
	With Low T_{avg} or Low Steam Line Pressure	4 T_{avg} Signals	2	3	2		
		4 Pressure Signals	2	3	2		

* Permissible bypass if reactor coolant pressure less than 2000 psig.

Table 3.5-3

Instrumentation Operating Conditions for Engineered Safety Features

No.	Functional Unit	1 No. of Channels	2 No. of Channels to Trip	3 Min. Operable Channels	4 Min. Degree of Redun-dancy	5 Operator Action if Conditions of Column 3 Cannot be Met	6 Operator Action if Conditions of Column 4 Cannot be Met
2.	Containment Spray						
a.	Manual	2	1	1	0	Cold shutdown	Same as Column 5
b.	High Containment Pressure (Hi-Hi Level)	2 sets of 3	2 of 3 in each set	2 per set	1/set	Cold shutdown	(1)
3.	Loss Of Power						
a.	480V Emergency Bus Undervoltage (Loss of Voltage)	2/bus	1/bus	1/bus	0	Cold shutdown	Same as Column 5
b.	480V Emergency Bus Undervoltage (De-graded Voltage)	2/bus	2/bus	1/bus	0	(3)	Same as Column 5
4.	Auxiliary Feedwater						
a.	Steam 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 RCS temperature such that T < 350°F	(2)

Table 3.5-3

Instrumentation Operating Conditions for Engineered Safety Features

No.	Functional Unit	1 No. of Channels	2 No. of Channels to Trip	3 Min. Operable Channels	4 Min. Degree of Redun-dancy	5 Operator Action if Conditions of Column 3 Cannot be Met	6 Operator Action if Conditions of Column 4 Cannot be Met
	ii Start Turbine-Driven Pump	3/stm gen.	2/3 in each of two stm gen.	2 chan. in each stm gen.	1	T < 350°F	(2)
b.	S.I. Start Motor-Driven Pumps	(All safety injection initiating functions and requirements)					
c.	Station Blackout Start Motor-Driven and Turbine-Driven Pumps	2	1	1	0	T < 350°F	Same as Column 5
d.	Trip of Main Feed-water Pumps Start Motor-Driven Pumps	2	1	1	0	Hot shutdown	Same as column 5
5.	Overpressure Protection System (OPS)	3	2	2	1	Refer to Specification 3.1.A.4	Same as Column 5
6.	Engineered Safety Features (SI) Logic	2	1	2#	1#	Be in Hot shutdown within the next 6 hours	Same as column 5

Table 3.5-3

Instrumentation Operating Conditions for Engineered Safety Features

---

An Engineered Safety Feature (SI) logic channel may be bypassed for maintenance for up to 24 hours or surveillance testing for up to eight hours provided the redundant logic channel is operable.

(1) Restore all channels as required by column 1 to an OPERABLE status within 72 hours or place the inoperable channel in trip. Otherwise, proceed to cold shutdown.

(2) Restore all channels as required by column 1 to an OPERABLE status within 72 hours or place the inoperable channel in trip. Otherwise, reduce T_{avg} to less than 350°F.

(3)
a) If the 138kV source of offsite power and the 13.8kV source of offsite power are available:
   1) Both channels may be inoperable on one bus for a period not to exceed 72 hours;
   2) If one channel is inoperable after 72 hours, place the inoperable channel in trip;
   3) If both channels are inoperable after 72 hours, proceed to cold shutdown.

b) If the 138kV source of offsite power or the 13.8kV source of offsite power is not available:
   1) If one channel is inoperable, place the inoperable channel in trip;
   2) If both channels are inoperable, proceed to cold shutdown.

Part 2

Technical Specification Table 4.1-1.

Table 4.1-1

Minimum Frequencies for Checks, Calibrations and Tests of Instrument Channels

	Channel Description	Check	Calibrate	Test	Remarks
1.	Nuclear Power Range	S	D (1) M (3)[*1]	Q (2)	1) Heat balance calibration 2) Signal to delta T; bistable action (permissive, rod stop, trips) 3) Upper and lower chambers for axial offset.
2.	Nuclear Intermediate Range	S (1)	N.A.	S/U (2)[*2]	1) Once/shift when in service 2) Bistable action (permissive, rod stop, trip)
3.	Nuclear Source Range	S (1)	N.A.	S/U (2)[*2]	1) Once/shift when in service 2) Bistable action (alarm, trip)
4.	Reactor Coolant Temperature	S	R#	Q (1)	1) Overtemperature - delta T Overpower - delta T
5.	Reactor Coolant Flow	S	R#	Q	
6.	Pressurizer Water Level	S	R#	Q	
7.	Pressurizer Pressure (High & Low)	S	R#	Q	
8.a	6.9 kV Voltage	N.A.	R#	Q	
8.b	6.9 kV Frequency	N.A.	R#	Q (1) R# (2)	1) Underfrequency relay actuation only. 2) The full test including RCP breaker trip upon underfrequency relay actuation and reactor trip logic relay actuation upon tripping of the RCP breaker.
9.	Analog Rod Position	S	R#	M	
10.	Rod Position Bank Counters	S	N.A.	N.A.	With analog rod position
11.	Steam Generator Level	S	R#	Q	
12.	Charging Flow	N.A.	R#	N.A.	

Table 4.1-1

Minimum Frequencies for Checks, Calibrations and Tests of Instrument Channels

	Channel Description	Check	Calibrate	Test	Remarks
28.	Control Rod Protection (for use with LOPAR fuel)	N.A.	R#	*4	
29.	Loss of Power				
	a. 480v Emergency Bus Undervoltage (Loss of Voltage)	N.A.	R#	R#	
	b. 480v Emergency Bus Undervoltage (Degraded Voltage)	S	R#	M	
	c. 480v Emergency Bus Undervoltage (Alarm)	N.A.	R#	M	
30.	Auxiliary Feedwater				
	a. Steam Generator Water Level (Low-Low)	S	R#	R#	
	b. Low-Low Level AFWS Automatic Actuation Logic	N.A.	N.A.	M	Test one logic channel per month on an alternating basis.
	c. Station Blackout (Undervoltage)	N.A.	R#	R#	
	d. Trip of Main Feedwater Pumps	N.A.	N.A.	R#	
31.	Reactor Coolant System Subcooling Margin Monitor	M	R#	N.A.	
32.	PORV Position Indicator (Limit Switch)	M	R#	R#	

ATTACHMENT II

PROPOSED TECHNICAL SPECIFICATION MARKED-UP PAGES

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
INDIAN POINT UNIT NO. 2
DOCKET NO. 50-247
JULY 1999

On these marked-up pages from the current Tech Specs:

Additions are shown by ***bold italic***,

and

Deletions are shown by ~~double-strikethrough~~.

Table 3.5-3

Instrumentation Operating Conditions for Engineered Safety Features

No.	Functional Unit	1 No. of Channels	2 No. of Channels to Trip	3 Min. Operable Channels	4 Min. Degree of Redundancy	5 Operator Action if Conditions of Column 3 or 4 Cannot be Met
1	Safety Injection					
a.	Manual	2	1	1	0	Cold shutdown
b.	High Containment Pressure (Hi Level)	3	2	2	1	Cold shutdown
c.	High Differential Pressure Between Steam Lines	3/steam line	2/steam line	2/steam line	1/steam line	Cold shutdown
d.	Pressurizer Low Pressure*	3	2	2	1	Cold shutdown
e.	High Steam Flow in 2/4 Steam Lines Coincident	2/line	1/2 in any 2 lines	1/line in each of 3 lines	2	Cold shutdown
	With Low T_{avg} or Low Steam Line Pressure	4 T_{avg} Signals	2	3	2	
		4 Pressure Signals	2	3	2	

* Permissible bypass if reactor coolant pressure less than 2000 psig.

Table 3.5-3

Instrumentation Operating Conditions for Engineered Safety Features

No.	Functional Unit	1 No. of Channels	2 No. of Channels to Trip	3 Min. Operable Channels	4 Min. Degree of Redundancy	5 Operator Action if Conditions of Column 3 or 4 Cannot be Met
2.	Containment Spray					
a.	Manual	2	1	1	0	Cold shutdown
b.	High Containment Pressure (Hi-Hi Level)	2 sets of 3	2 of 3	2 per set in each set	1/set	Cold shutdown
3.	Loss Of Power					
a.	480V Emergency Bus Undervoltage (Loss of Voltage)	2/bus	1/bus	1/bus	0	Cold shutdown
b.	480V Emergency Bus Undervoltage (Degraded Voltage)	2/bus	2/bus	1/bus	0	~~Cold shutdown~~ ***See note***
4.	Auxiliary Feedwater					
a.	Steam 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 RCS temperature such that T < 350°F

Table 3.5-3

Instrumentation Operating Conditions for Engineered Safety Features

No.	Functional Unit	1 No. of Channels	2 No. of Channels to Trip	3 Min. Operable Channels	4 Min. Degree of Redundancy	5 Operator Action if Conditions of Column 3 or 4 Cannot be Met
	ii. Start Turbine-Driven Pump	3/stm gen.	2/3 in each of two stm gen.	2 chan. in each stm gen.	1	T < 350°F
b.	S.I. Start Motor-Driven Pumps	(All safety injection initiating functions and requirements)				
c.	Station Blackout Start Motor-Driven and Turbine-Driven Pumps	2	1	1	0	T < 350°F
d.	Trip of Main Feedwater Pumps Start Motor-Driven Pumps	2	1	1	0	Hot shutdown
5.	Overpressure Protection System (OPS)	3	2	2	1	Refer to Specification 3.1.A.4

Table 3.5-3

Instrumentation Operating Conditions for Engineered Safety Features

Note: a) *If the 138kV source of offsite power and the 13.8kV source of offsite power are available:*
1) *Both channels may be inoperable on one bus for a period not to exceed 72 hours;*
2) *If one channel is inoperable after 72 hours, place the inoperable channel in trip;*
3) *If both channels are inoperable after 72 hours, proceed to cold shutdown.*

b) *If the 138kV source of offsite power or the 13.8kV source of offsite power is not available:*
1) *If one channel is inoperable, place the inoperable channel in trip;*
2) *If both channels are inoperable, proceed to cold shutdown.*

Table 4.1-1
Minimum Frequencies for Checks, Calibrations and Tests of Instrument Channels

	Channel Description	Check	Calibrate	Test	Remarks
1.	Nuclear Power Range	S	D (1) M (3)[*1]	Q (2)	1) Heat balance calibration 2) Signal to delta T; bistable action (permissive, rod stop, trips) 3) Upper and lower chambers for axial offset.
2.	Nuclear Intermediate Range	S (1)	N.A.	S/U (2)[*2]	1) Once/shift when in service 2) Bistable action (permissive, rod stop, trip)
3.	Nuclear Source Range	S (1)	N.A.	S/U (2)[*2]	1) Once/shift when in service 2) Bistable action (alarm, trip)
4.	Reactor Coolant Temperature	S	R#	Q (1)	1) Overtemperature - delta T Overpower - delta T
5.	Reactor Coolant Flow	S	R#	Q	
6.	Pressurizer Water Level	S	R#	Q	
7.	Pressurizer Pressure (High & Low)	S	R#	Q	
~~8.~~	~~6.9 kV Voltage & Frequency~~	~~N.A.~~	~~R#~~	~~Q~~	~~Reactor Protection circuits only~~
8.a	***6.9 kV Voltage***	***N.A.***	***R#***	***Q***	
8.b	***6.9 kV Frequency***	***N.A.***	***R#***	***Q (1)*** ***R# (2)***	***1) Underfrequency relay actuation only.*** ***2) The full test including RCP breaker trip upon underfrequency relay actuation and reactor trip logic relay actuation upon tripping of the RCP breaker.***
9.	Analog Rod Position	S	R#	M	
10.	Rod Position Bank Counters	S	N.A.	N.A.	With analog rod position
11.	Steam Generator Level	S	R#	Q	
12.	Charging Flow	N.A.	R#	N.A.	

Table 4.1-1

Minimum Frequencies for Checks, Calibrations and Tests of Instrument Channels

	Channel Description	Check	Calibrate	Test	Remarks
28.	Control Rod Protection (for use with LOPAR fuel)	N.A.	R#	*4	
29.	Loss of Power				
	a. 480v Emergency Bus Undervoltage (Loss of Voltage)	N.A.	R#	R#	
	b. 480v Emergency Bus Undervoltage (Degraded Voltage)	~~N.A.~~ ***S***	R#	~~R#~~ ***M***	
	c. 480v Emergency Bus Undervoltage (Alarm)	N.A.	R#	M	
30.	Auxiliary Feedwater				
	a. Steam Generator Water Level (Low-Low)	S	R#	R#	
	b. Low-Low Level AFWS Automatic Actuation Logic	N.A.	N.A.	M	Test one logic channel per month on an alternating basis.
	c. Station Blackout (Undervoltage)	N.A.	R#	R#	
	d. Trip of Main Feedwater Pumps	N.A.	N.A.	R#	
31.	Reactor Coolant System Subcooling Margin Monitor	M	R#	N.A.	
32.	PORV Position Indicator (Limit Switch)	M	R#	R#	

ATTACHMENT III

SAFETY ASSESSMENT

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
INDIAN POINT UNIT NO. 1
DOCKET NO. 50-247
JULY 1999

SECTION I - Description of Changes

In accordance with the commitments made in LER 1999-006-00, "Plant Operation in Condition Prohibited by Technical Specifications," (Reference 1) which discussed the degraded voltage testing and as a result of a reevaluation of Generic Letter 96-01, "Testing of Safety-Related Logic Circuits," (Reference 2) as discussed with respect to underfrequency testing in LER 1998-009-01, "Deficiencies Identified in Surveillance Procedures for Testing of Safety-Related Logic," (Reference 3), Con Edison is proposing the following changes to the Technical Specifications. Attachment II provides mark-ups of the proposed changes on existing Technical Specification pages.

In Table 3.5-3, Item 3.b ("480V Emergency Bus Undervoltage (Degraded Voltage)"), a clarification was provided as to what actions the operator should take if the minimum conditions could not be met. The change was to delete the Operator Action of "Cold shutdown" and replace it with a detailed Operator action via a note. The note states:

"a) If the 138kV source of offsite power and the 13.8kV source of offsite power are available:
   1) Both channels may be inoperable on one bus for a period not to exceed 72 hours;
   2) If one channel is inoperable after 72 hours, place the inoperable channel in trip;
   3) If both channels are inoperable after 72 hours, proceed to cold shutdown.

b) If the 138kV source of offsite power or the 13.8kV source of offsite power is not available:
   1) If one channel is inoperable, place the inoperable channel in trip;
   2) If both channels are inoperable, proceed to cold shutdown."

In Table 4.1-1, Item 8 ("6.9 kV Voltage & Frequency"), the testing frequency was "Q" (quarterly - once per three months) with its own remark that stated, "Reactor Protection circuits only." The change was to split Item 8 into Item 8.a ("6.9 kV Voltage") and Item 8.b ("6.9 kV Frequency"). For Item 8.a there are no remarks. For Item 8.b, the testing frequency now has a "Q" (quarterly - once per three months) portion and an "R#" (refueling - once per 24 months) portion. The "Q" portion has a remark that states, "Underfrequency relay actuation only." The "R#" portion has a remark that states, "The full test including RCP breaker trip upon underfrequency relay actuation and reactor trip logic relay actuation upon tripping of the RCP breaker."

Also in Table 4.1-1, Item 29.b ("480v Emergency Bus Undervoltage (Degraded Voltage)"), the check frequency was changed from N.A. (not applicable) to S (shift - twice per day) and the test frequency was changed from "R#" (refueling - once per 24 months) to "M" (monthly - once per month).

SECTION II - Evaluation of Changes

The changes in Table 3.5-3, Item 3.b and Table 4.4-1, Item 29.b are a result of the event discussed in LER 1999-006-00, "Plant Operation in Condition Prohibited by Technical Specifications," (Reference 1) which discussed the degraded voltage testing. Table 3.5-3, Item 3.b was approved in Technical Specification Amendment 74 (December 1981). The NRC Safety Evaluation issued with this amendment approved monthly testing of the undervoltage alarm relays and refueling interval testing for the degraded voltage relays, as presented in Tech Spec Table 4.1-1, Items 29.b and 29.c. Indian Point 2 records indicate that a meeting between the NRC and Con Edison in July, 1982 addressed testing of the degraded bus voltage relays on a monthly basis. At this meeting, the NRC requested that Con Edison also revise the Tech Specs accordingly. In 1984 Con Edison did implement a modification to provide the installation of a test switch to bypass the degraded voltage relay channels during testing and revised procedure PT-M48 to provide monthly testing of the degraded voltage relays. No Technical Specification change was proposed to allow its use or require the testing. In LER 1999-006-00, "Plant Operation in Condition Prohibited by Technical Specifications," Con Edison committed to submit a proposed Technical Specification change by July 1999.

The tripping of the 480V bus will be bypassed for the duration of the test of the degraded voltage relays (typically no more than 10 minutes). Only one 480V bus will be tested (with the bypass) at a time. If a degraded voltage condition should occur during the test with no Safety Injection (SI), the degraded voltage 480V bus trip by design is delayed for three minutes (the test times this delay) to allow the Station Auxiliary Transformer tap changers to recover voltage. The operator would be aware of a degraded voltage condition by the undervoltage alarm relay, which is set at a higher level than the degraded voltage relays (94% vs. 88% of 480V). The operator would stop the test. If the degraded voltage relay setpoint is reached during the test, the three other 480V buses will trip, all three EDGs will start and there will be an alarm (SUSTAINED UV SAFEGUARD BUS TRIP) in the Control Room. The Alarm Response Procedure for this alarm calls for the operator to trip the 480V bus if it has not tripped (such as due to the testing) and to load the bus if equipment supplied by the bus is required (with no SI and/or unit trip the 480V buses must be manually loaded to the Emergency Diesel Generators (EDGs) whether or not degraded voltage trip was bypassed for testing). Therefore, if a degraded voltage condition occurs during the test with no SI, there are no safety implications.

If a degraded voltage condition should occur during the test with a SI, the automatic loading to the EDG for the bus under test would not occur because the bus would not be stripped. The bus would remain on offsite power with the degraded voltage condition. Under these circumstances, the Emergency Operating Procedures direct the Operator to manually trip the 480V bus and load it to the EDG. This should occur within approximately ten minutes of the SI. The other three 480V buses would be automatically loaded to the EDGs (the 480V motor start sequence would occur). This would provide for at least minimum safeguards. Therefore, the safety impact for a degraded voltage condition occurring during the test with an SI is small (less than that of the EDG limiting condition for operation where the plant relies on the remaining two EDGs to

provide minimum safeguards for the entire accident scenario). Therefore, an allowance for testing the degraded voltage relays would be reasonable and would provide added assurance of the operation of the degraded voltage relays and their timers.

The change to Table 4.4-1, Item 8 is the result of a reevaluation of Generic Letter 96--01, "Testing of Safety-Related Logic Circuits," (Reference 2) as discussed with respect to underfrequency testing in LER 1998-009-01, "Deficiencies Identified in Surveillance Procedures for Testing of Safety-Related Logic," (Reference 3). For this item, an operability determination has justified delaying testing the until next plant shutdown of sufficient duration (up to the 2000 refueling outage).

The underfrequency relay contacts were found to be clean with no evidence of pitting. With two parallel underfrequency relay contacts providing a trip input for each RCP breaker, failure to initiate a RCP breaker trip on underfrequency (actuation of the underfrequency relays is presently tested quarterly) is unlikely. Preventative maintenance that included electrical tests and mechanical inspections was performed on the four RCP breakers in May 1997. Observations that tripping the RCP breakers initiates a reactor trip signal have been made. Although these observations are undocumented, such an observation was displayed in the plant computer in July 1997. The likelihood of an underfrequency event (frequency less than 57.5 cps) on the Con Edison grid is remote. Voltage would most likely drop before frequency. Undervoltage would provide a direct reactor trip (this function is fully tested). The undervoltage reactor trip is assumed to occur almost instantaneously, while the underfrequency trip occurs a few seconds later in the safety analysis and is a backup to the undervoltage reactor trip. Therefore, the safety significance of not testing the underfrequency trip until next plant shutdown of sufficient duration is minimal, and subsequently performing this test on a refueling interval will provide adequate assurance that the underfrequency reactor trip is functional.

The enclosed proposed Technical Specification changes do not require any physical changes to the current plant configuration but rather provide the administrative requirements to perform the testing requested by the NRC.

SECTION III - No Significant Hazards Evaluation

The proposed change does not involve a significant hazards consideration because:

1) Does the proposed license amendment involve a significant increase in the probability or in the consequences of an accident previously evaluated?

No. This proposed change is administrative in nature. This change does not affect possible initiating events for accidents previously evaluated or alter the configuration or operation of the facility. The Limiting Safety System Settings and Safety Limits specified in the current Technical Specifications remain unchanged. Therefore, the proposed change would not involve a significant increase in the probability or in the consequences of an accident previously evaluated.

2) Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

No. This proposed change is administrative in nature. The safety analysis of the facility remains complete and accurate. There are no physical changes to the facility and the plant conditions for which the design basis accidents have been evaluated are still valid. Consequently no new failure modes are introduced as a result of the proposed change. Therefore, the proposed change would not create the possibility of a new or different kind of accident from any accident previously evaluated.

3) Does the proposed amendment involve a significant reduction in a margin of safety?

No. This proposed change is administrative in nature. Since there are no changes to the operation or the physical design of the facility, the Updated Final Safety Analysis Report (UFSAR) design basis, accident assumptions, or Technical Specification Bases are not affected. Therefore, the proposed change does not involve a significant reduction in a margin of safety.

SECTION IV - Impact of Changes

These changes will not adversely impact the following:

ALARA Program
Security and Fire Protection Programs
Emergency Plan
UFSAR or SER Conclusions
Overall Plant Operations and the Environment

The proposed amendment provides for monthly testing of the 480V bus degraded voltage relays and for testing of the underfrequency reactor trip circuit. The tests evaluated in this analysis are not specific tests listed or implied in the UFSAR. Therefore, there is no UFSAR impact. There are no new failure modes introduced by this change. There are no functional or physical changes to any equipment

SECTION V - Conclusion

The proposed change to the Technical Specifications does not involve a significant hazards consideration. In addition, the proposed change to the Technical Specifications has been reviewed by both the Station Nuclear Safety Committee (SNSC) and the Con Edison Nuclear Facility Safety Committee (NFSC). Both Committees concur that the proposed change does not represent a significant hazards consideration.

SECTION VI - References

1) Indian Point 2 LER 1999-006-00, "Plant Operation in Condition Prohibited by Technical Specifications," submitted in Con Edison Letter dated May 13, 1999, J. S. Baumstark to Document Control Desk.

2) NRC Generic Letter 96-01, "Testing of Safety-Related Logic Circuits," dated January 10, 1996.

3) IP2 LER 1998-009-01, "Deficiencies Identified in Surveillance Procedures for Testing of Safety-Related Logic," submitted in Con Edison Letter dated July 26, 1999, J. S. Baumstark To Document Control Desk.