ATTACHMENT B

PROPOSED CHANGE TO APPENDIX A

TECHNICAL SPECIFICATION TO OPERATING LICENSE

NPF-11

Revised Pages:

NPF-11

3/4 8-1
3/4 8-1a

2250K

ATTACHMENT C

SIGNIFICANT HAZARDS CONSIDERATION

Commonwealth Edison has evaluated the proposed Technical Specification Amendment and determined that it does not represent a significant hazards consideration. Based on the criteria for defining a significant hazards consideration established in 10 CFR 50.92, operation of LaSalle County Station Unit 1 in accordance with the proposed amendment will not:

1) Involve a significant increase in the probability or consequences of an accident previously evaluated because in the event of a loss of offsite power with the "2A" diesel inoperable for this period sufficient onsite power with a single active failure will still be available to safely shutdown.

2) Create the possibility of a new or different kind of accident from any accident previously evaluated because emergency power is still available to those systems required to mitigate accidents evaluated in the FSAR.

3) Involve a significant reduction in the margin of safety because the probability of a loss of offsite power ir addition to a remaining diesel generator failure during the period of these diesel generator modifications is sufficiently small to reasonably assure the health and safety of the public.

Based on the preceding discussion, it is concluded that the proposed system change clearly falls within all acceptable criteria with respect to the system or component, the consequences of previously evaluated accidents will not be increased and the margin of safety will not be decreased. Therefore, based on the guidance provided in the Federal Register and the criteria established in 10 CFR 50.92(c), the proposed change does not constitute a significant hazards consideration.

3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1 A.C. SOURCES

A.C. SOURCES - OPERATING

LIMITING CONDITION FOR OPERATION

3.8.1.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

a. Two physically independent circuits between the offsite transmission network and the onsite Class 1E distribution system, and

b. Separate and independent diesel generators 0, 1A, 2A and 1B with:*

1. For diesel generator 0, 1A and 2A:

a) A separate day fuel tank containing a minimum of 250 gallons of fuel.

b) A separate fuel storage system containing a minimum of 31,000 gallons of fuel.

2. For diesel generator 1B, a separate fuel storage tank/day tank containing a minimum of 29,750 gallons of fuel.

3. A separate fuel transfer pump.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:

a. With either one offsite circuit or diesel generator 0 or 1A of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirements 4.8.1.1.1a within 1 hour, and 4.8.1.1.2a.4, for one diesel generator at a time, within eight hours, and at least once per 8 hours thereafter; restore at least two offsite circuits and diesel generators 0 and 1A to OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. 18

b. With one offsite circuit and diesel generator 0 or 1A of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirements 4.8.1.1.1a within 1 hour, and 4.8.1.1.2a.4, for one diesel generator at a time, within six hours, and at least once per 8 hours thereafter; restore at least one of the inoperable A.C. sources to OPERABLE status within 12 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. Restore at least two offsite circuits and diesel generators 0 and 1A to OPERABLE status within 72 hours from the time of initial loss or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. 18

*For a 30 day period for diesel generator 2A during the Unit 2 first refueling outage, with Unit 2 in operational condition 4 or 5 or defueled, only 3 diesel generators, 1B and 1A, and 0 are required to satisfy the standby AC onsite power requirements for Unit 1. Surveillance requirements,4.8.1.1.1a and 4.8.1.1.2a.4 shall be performed within 48 hours prior to removal of the 2A diesel generator from service. During the 30 day period the remaining 3 diesel generators will be verified[1] operable at least once per day (in addition to any testing required by Table 4.8.1.1.2-1). The control circuit for the unit cross-tie circuit breakers between buses 142Y and 242Y shall be temporarily modified to allow the breakers to be closed with the diesel generator feeding the bus. In the event these conditions are not met, Unit 1 will be brought to HOT SHUTDOWN within 12 hours and COLD SHUTDOWN within the following 24 hours. The provisions of Technical Specification 3.0.4 do not apply.

[1] The term verify as used in this context means to administratively check by examining logs or other information to determine if certain components are out-of-service for maintenance or other reasons. It does not mean to perform the surveillance requirements needed to demonstrate the OPERABILITY of the components.

ATTACHMENT D

Station Blackout Assessment

I. Probability of Losing Off-Site Power during a 30 day Period

A. Both SAT's energized, UAT de-energized

		Unreliability[1]	Probability[2]
1.	Isolation Events		
	a. Grid Collapse	1×10^{-8}	8.22×10^{-10}
	b. Tornado thry switchyard	1.6×10^{3}	1.32×10^{-4}
	c. All 345kV lines out	2.5×10^{7}	2.05×10^{-8}
	Subtotal		1.32×10^{-4}
2.	Events which disable both SAT inputs		
	a. Line fault & breaker failure	$(5 \times 10^{-3})^2$	1.69×10^{-7}
3.	Events which fault both SAT outputs		
	a. 345kV bus fault & prot. system malfunction	$(0.324)^2$	7.09×10^{-4}
	b. SAT fault	$(0.127)^2$	1.09×10^{-4}
	Subtotal		8.18×10^{-4}
	Total		9.5×10^{-4}

B. Both SAT's and UAT energized

	Failure Event	Unreliability[1]	Probability[2]
1.	Isolation events	(Same as I.A.1)	1.32×10^{-4}
2.	All aux. transformer inputs disabled		
	a. Line fault & breaker failure	$(5 \times 10^{-3})^3$	6.95×10^{-11}
3.	All aux. transformer outputs disabled		
	a. 345kV bus fault & prot. system malfunction	$(0.324)^3$	1.89×10^{-5}
	b. Transformer faults[3]	$2 \times (0.127)^3$	2.28×10^{-6}
	Subtotal		2.12×10^{-5}
	Total		1.53×10^{-4}

Notes: (1) Unreliability = prob. of failure event/year (from ref. 3)
For multiple independent failure events such as transformer faults:
Unreliability = (prob. of failure event 1/year) x
(prob. of failure event 2/year) x
(prob. of failure event n/year)

(2) Probability = probability of failure event/30 days
= unreliability x 30/365
For multiple independent events:
Probability = (unreliability of event 1 x30/365)
x (unreliability of event 2 x30/365)
x (unreliability of event n x30/365)

(3) The probability that all three aux. transformers fail during the same 30 day period is:
unreliability of SAT 142 x 30/365+
unreliability of SAT 242 x 30/365+
(unreliability of UAT + power transformer) x 30/365
assuming all 4 transformers have the same unreliability, the probability is
$(0.127 \times 30/365) \times (0.127 \times 30/365) \times (0.127+0.127) \times 30/365 =$
$(0.127)^2 \times (2 \times 0.127) \times (30/365)^3 =$
$2 \times (0.127)^3 \times (30/365)^3 =$
2.28×10^{-6}

II. Probability of a Diesel Generator Failure

Assumptions: DG-0 Inoperable
Unit 1 in cold shutdown

A. One or Both of the Remaining standby Diesels (1A and 2A) Fail on Demand[1]

Failure Event	Probability
1. Random Failures[2]	
a. DG-1A fails	0.01
b. DG-2A fails	0.01
c. Both 1A and 2A fail	0.0001
2. Common Mode Failures[3]	
a. DG-1A & 2A	0.002
b. DG-1A & 2B	0.002
c. DG-2A & 2B	0.002
Total	0.0261

B. Both DG's 1A and 2A Fail on Demand

Failure Event	Probability
Random failures[2]	0.0001
Common Mode Failures[3]	0.002
Total	0.0021

Notes: (1) The calculations will yield the same valve no matter which of the three standby diesels is initially assumed to be inoperable.

(2) The probability for a random failure is based on operational experience (references (d), (e), and (f)).

(3) The value for the common mode failure is from reference (b).

III. Probability of a LOSP and Diesel Failure

A. LOSP and One or Both Diesels Fails

1. UAT De-energized

Prob. = $9.5\times10^{-4}\times2.16\times10^{-2} = 2.48\times10^{-5}$

2. UAT Energized

Prob. = $1.53\times10^{-4}\times2.61\times10^{-2} = 3.99\times10^{-6}$

B. LOSP and Both Diesels Fail

1. UAT De-energized

Prob. = $9.5\times10^{-4}\times2.1\times10^{-3} = 2.0\times10^{-6}$

2. UAT Energized

Prob. = $1.53\times10^{-4}\times2.1\times10^{-3} = 3.21\times10^{-7}$

ATTACHMENT E

Loss of Off-Site Power Transient Analysis

A. Unit 1 initially at full power, Unit 2 in cold shutdown, and DG-2A inoperable.

1. DG-0 fails:

Inoperable Systems	Functional Systems
RHR Loop A	HPCS
LPCS	ADS
•	RHR Loops B and C
	RCIC

2. DG-1A fails:

Inoperable Systems	Functional Systems
RHR Loops B and C	HPCS
	ADS
	RCIC
	RHR Loop A
	LPCS

3. DG-1B fails:

Inoperable System	Functional Systems
HPCS	ADS
	RCIC
	LPCS
	RHR Loops A, B, and C

Note: With Unit 1 at power, DG-0 or 1A will not be allowed to be taken out of service for an extended time.

B. Unit 2 initially at full power, Unit 1 in cold shutdown, and DG-1A inoperable.

1. DG-0 fails:
   same as A.1
2. DG-2A fails:
   same as A.2
3. DG-2B fails:
   same as A.3

C. Unit 2 initially at full power, Unit 1 in cold shutdown, and DG-0 inoperable.

1. DG-1A fails:

Inoperable Systems	Functional Systems
RHR Loop A	HPCS
LPCS	ADS
	RHR Loops B and C
	RCIC

2. DG-2A fails:

Inoperable Systems	Functional Systems
RHR Loop A	HPCS
LPCS	ADS
	RCIC
	RHR Loops B and C - after unit tie breakers closed

3. DG-2B fails:

Inoperable Systems	Functional Systems
HPCS	ADS
RHR Loop A	RCIC
LPCS	RHR Loops B and C