

June 5, 2001

Mr. Oliver D. Kingsley, President
Exelon Nuclear
Exelon Generation Company, LLC
1400 Opus Place, Suite 500
Downers Grove, IL 60515

SUBJECT: LASALLE COUNTY STATION, UNITS 1 AND 2 - REQUEST FOR ADDITIONAL
INFORMATION (TAC NOS. MB1224 AND MB1225)

Dear Mr. Kingsley:

By letter dated February 20, 2001, you submitted a license amendment request to extend the Technical Specification allowed outage time from 72 hours to 14 days for Divisions 1 and 2 emergency diesel generators. The Nuclear Regulatory Commission (NRC) staff has performed an initial review of your request and finds that it needs additional information to complete its review.

Therefore, I request that you respond to the enclosed request for additional information by June 29, 2001, in order for the staff to complete its review in a timely manner. The questions were discussed and the response date agreed upon with a member of your staff. The questions are unchanged from those sent by facsimile to a member of your staff on May 14, 2001.

Sincerely,

/RA/

Jon B. Hopkins, Senior Project Manager, Section 2
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-373 and 50-374

Enclosure: As stated

cc w/encl: See next page

June 5, 2001

Mr. Oliver D. Kingsley, President
Exelon Nuclear
Exelon Generation Company, LLC
1400 Opus Place, Suite 500
Downers Grove, IL 60515

SUBJECT: LASALLE COUNTY STATION, UNITS 1 AND 2 - REQUEST FOR ADDITIONAL INFORMATION (TAC NOS. MB1224 AND MB1225)

Dear Mr. Kingsley:

By letter dated February 20, 2001, you submitted a license amendment request to extend the Technical Specification allowed outage time from 72 hours to 14 days for Divisions 1 and 2 emergency diesel generators. The Nuclear Regulatory Commission (NRC) staff has performed an initial review of your request and finds that it needs additional information to complete its review.

Therefore, I request that you respond to the enclosed request for additional information by June 29, 2001, in order for the staff to complete its review in a timely manner. The questions were discussed and the response date agreed upon with a member of your staff. The questions are unchanged from those sent by facsimile to a member of your staff on May 14, 2001.

Sincerely,

/RA/

Jon B. Hopkins, Senior Project Manager, Section 2
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-373 and 50-374

Enclosure: As stated

cc w/encl: See next page

Distribution:

PUBLIC

PD3/2 r/f

CCarpenter

AMendiola

CRosenberg

JBHopkins

LBerry

OGC

ACRS

MRing, R3

Accession No.: ML011570181

OFFICE	PM:PD3/2	LA:PD3/2	SC:PD3/2
NAME	JBHopkins	CRosenberg	AMendiola
DATE	6/4/01	6/4/01	6/5/01

OFFICIAL RECORD COPY

O. Kingsley
Exelon Generation Company, LLC

LaSalle County Station
Units 1 and 2

cc:

Exelon Generation Company, LLC
Site Vice President - LaSalle
22710 206th Avenue N.
Cordova, Illinois 61242-9740

Robert Cushing, Chief, Public Utilities Division
Illinois Attorney General's Office
100 W. Randolph Street
Chicago, Illinois 60601

Exelon Generation Company, LLC
Station Manager - LaSalle
22710 206th Avenue N.
Cordova, Illinois 61242-9740

Regional Administrator
U.S. NRC, Region III
801 Warrenville Road
Lisle, Illinois 60532-4351

Exelon Generation Company, LLC
Regulatory Assurance Manager - LaSalle
22710 206th Avenue N.
Cordova, Illinois 61242-9740

Illinois Department of Nuclear Safety
Office of Nuclear Facility Safety
1035 Outer Park Drive
Springfield, Illinois 62704

U.S. Nuclear Regulatory Commission
LaSalle Resident Inspectors Office
2605 N. 21st Road
Marseilles, Illinois 61341-9756

Document Control Desk-Licensing
Exelon Generation Company, LLC
1400 Opus Place, Suite 500
Downers Grove, Illinois 60515

Phillip P. Steptoe, Esquire
Sidley and Austin
One First National Plaza
Chicago, Illinois 60603

Mr. John Skolds
Chief Operating Officer
Exelon Generation Company, LLC
1400 Opus Place, Suite 900
Downers Grove, Illinois 60515

Assistant Attorney General
100 W. Randolph St. Suite 12
Chicago, Illinois 60601

Mr. John Cotton
Senior Vice President, Operation Support
Exelon Generation Company, LLC
1400 Opus Place, Suite 900
Downers Grove, Illinois 60515

Chairman
LaSalle County Board
707 Etna Road
Ottawa, Illinois 61350

Mr. William Bohlke
Senior Vice President, Nuclear Services
Exelon Generation Company, LLC
1400 Opus Place, Suite 900
Downers Grove, Illinois 60515

Attorney General
500 S. Second Street
Springfield, Illinois 62701

Chairman
Illinois Commerce Commission
527 E. Capitol Avenue, Leland Building
Springfield, Illinois 62706

Mr. H. Gene Stanley
Vice President
Mid-West Regional Operating Group
Exelon Generation Company, LLC
1400 Opus Place, Suite 900
Downers Grove, Illinois 60515

O. Kingsley
Exelon Generation Company, LLC

- 2 -

LaSalle County Station
Units 1 and 2

Mr. Christopher Crane
Senior Vice President
Mid-West Regional Operating Group
Exelon Generation Company, LLC
1400 Opus Place, Suite 900
Downers Grove, Illinois 60515

Mr. Jeffrey Benjamin
Vice President - Licensing and Regulatory
Affairs
Exelon Generation Company, LLC
1400 Opus Place, Suite 900
Downers Grove, Illinois 60515

Mr. R. M. Krich
Director - Licensing
Mid-West Regional Operating Group
Exelon Generation Company, LLC
1400 Opus Place, Suite 900
Downers Grove, Illinois 60515

Mr. Robert Helfrich
Senior Counsel, Nuclear
Mid-West Regional Operating Group
Exelon Generation Company, LLC
1400 Opus Place, Suite 900
Downers Grove, IL 60515

REQUEST FOR ADDITIONAL INFORMATION
LASALLE COUNTY STATION, UNITS 1 AND 2

Quality of Probabilistic Risk Assessment (PRA)

1. The submittal indicated that LaSalle participated in the BWROG PRA Peer Review Certification program. A PRA Certification Team completed an inspection and review of the LaSalle PRA. The team found that the LaSalle PRA was a sound model and was adequate for use in regulatory submittals.
 - a. Did the peer review group specifically address application of the PRA to the emergency diesel generator (EDG) allowed outage time (AOT) extension changes, or was it a general assessment for application to AOT changes?
 - b. A peer review is one element in a PRA's quality program. Explain what other elements are used to assure quality of the LaSalle PRA.
 - c. What were the few enhancements identified, and how were they addressed in the analysis performed to support the proposed changes?
 - d. Were the enhancements peer reviewed, and if so, by whom?
 - e. Who participated in the LaSalle PRA peer review, and what were their qualifications?
2. The staff SER for the LaSalle IPE suggested that the methods for both common cause failure and human reliability analysis could be suspect based on staff reviews of Zion, Dresden, and Quad Cities IPES. Explain how these potential weaknesses were addressed in your subsequent PRA updates.
3. The submittal indicated that the current PRA has been updated three times since the development of the IPE.
 - a. How does LaSalle assure that the current PRA used for this application represents the as-built and as-operated plant? Have all significant plant operational changes, both hardware and procedural, been appropriately incorporated into the current PRA?
 - b. List significant plant operational changes and how such changes were incorporated during the updates.
4. Your submittal indicated that you had updated the LaSalle PRA to include plant and procedure changes. Please discuss the process for assuring important changes are included in PRA updates in a timely manner.

Risk impact due to external initiating events

5. Your submittal indicated that the risk impact from fire scenarios would be minimal. However, certain fire scenarios not only could cause a loss of offsite power initiator, but also fail systems needed to mitigate the initiator (e.g., a train or part of a train of ECCS). Similarly, if a fire occurs during a period when an EDG that has significant safety loads is out of service for on-line maintenance, a fire in another fire zone/area could cause station blackout and simultaneously fail another EDG.
 - a. Evaluate your fire areas for such scenarios to assess the potential risk impact due to the proposed change. Provide the fire ignition frequencies used for the related fire areas. For each fire area, the condition core damage probability (with an EDG out of service) could also be useful to demonstrate the fire risk significance.
 - b. LaSalle should justify whether or not the fire risk impact would clearly meet the acceptable guidelines in RGs 1.174 and 1.177. Further, explain how your programs or analyses employed for the Tier 2 and 3 aspects of RG 1.177 would address these potentially risk significant configurations.
6. What is the seismic initiating event frequency for causing a loss of offsite power at your plant?
7. On pages 20 and 21 of Attachment A to your February 20, 2001, submittal, you stated that turbine building flooding would be “assessed” as part of the CRMP and preventative actions will help assure there is no precursor degradation in the structural integrity of turbine building basement piping. Does this statement indicate that your reported risk metrics include no increase in risk from turbine building flooding events if the EDG AOT were extended?
8. On page 21 of Attachment A to your February 20, 2001, submittal, you indicated that the fire analysis for LaSalle was based on conservative assumptions used during the RMIEP Study. In the next sentence you state that the key elements of the fire assessment are consistent with current approaches. These statements appear to be in contradiction. Please explain.
9. Please explain your reasoning behind concluding that the proposed EDG completion time extension has a negligible effect on the risk profile at LaSalle from fire initiators given that you also stated you did not explicitly model such sequences.
10.
 - (a) Provide the increase in CDF and LERF, and ICCDP and ICLERP from the proposed AOT extension assuming that regular walkdowns and cyclic inspections of piping in the turbine building do not reduce the frequency of floods in the turbine building.
 - (b) Describe what is intended when you state that under CRMP there will be additional(?) walkdowns and cyclic inspections of the subject piping in a piping inspection program. Indicate whether this is a formal commitment.

- (c) What portions of the turbine building piping will not be covered by the walkdowns?

Risk impact due to internal initiating events

11. What is the percentage and absolute CDF contributions due to the LOOP/SBO initiator?
12. What are the top five dominant LOOP/SBO sequences? Describe the sequences.
13. Given an EDG out of service, what are the top five cutsets with respect to CDF and LERF? What are the sources and values for basic events used in those cutsets? How do the values compare with the plant experience?
15. What is the LOOP initiating event frequency used? What is the basis for the value?
16. What are the common cause failure rates used for EDGs? What is the basis for the values?
17. The proposed changes would allow, if approved, LaSalle to perform a corrective maintenance for a failed EDG using the 14-day AOT. For corrective maintenance, a typical PRA assumes that the remaining EDG would be subject to a potential common cause failure. The corresponding ICCDP/ICLERP can be significantly higher than that calculated for a preventive, planned, maintenance. Provide the ICCDP/ICLERP for a corrective maintenance and demonstrate that it meets the acceptable guidelines set forth in RG 1.177.

Risk Assessment - General

18. You explained how you estimated the effect of extending the completion time to 14 days for a Division 1 or Division 2 EDG. Explain how your analysis (i.e., CDF, LERF, ICCDP and ICLERP) factored in the increase of the ITS period associated with discovery of failure to meet TS LCO 3.8.1 from 10 days to 17 days.
19. Explain how the ability of the opposite unit's EDG to compensate for a unit's loss of emergency power source is credited in the risk assessment. Discuss to what extent this capability is assured by CTS or proposed TS.
20. On page 12 of Attachment A to your February 20, 2001, submittal, you stated that your analysis assumed only one major EDG overhaul per refueling cycle. What is the duration of the EDG vendor's recommended period between overhauls?
21. Footnote 5 to Table 2 on page 15 of Attachment A to your February 20, 2001, submittal noted that the base CDF assumed an augmented piping inspection program for service water system is in place. What is the status of this program and is it actually in place? If not, when will it be in place?

22. Footnote 7 to Table 2 on page 15 of Attachment A to your February 20, 2001, submittal noted that the LERF results shown are conservative because the EDGs and their support systems are treated as being vulnerable to turbine building floods. However, on page 8 of Attachment E you stated that the Core Standby Cooling System (that provides essential cooling to the EDGs) and other front line systems have room doors that are not flood-proof. If that is so, why are the LERF results in Table 2 conservative for EDGs as claimed in footnote 7?
23. On page 20 of Attachment A to your February 20, 2001, submittal, you provided a table summarizing the calculated risk values and comparing these values to Regulatory Guide 1.174 and 1.177 guidance. Please indicate which initiators are included in your risk metric results so reported (e.g., do they include fire, internal flood, seismic initiators?)

Tier 2

24.
 - a. With an EDG out of service, what are the most risk significant equipment, or basic events, based on your PRA? Have you performed a systematic search for such equipment?
 - b. What are the restrictions currently placed on such risk significant equipment?
 - c. Are there any additional restrictions, in terms of enhancement in TS or procedures, needed to avoid risk-significant configurations?

Technical Specifications

25. Why is Action B being deleted on page 3.8.1-3 of the Improved Technical Specifications?