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U. S. Nuclear Regulatory Commission
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Clinton Power Station
Facility Operating License No. NPF-62
NRC Docket No. 50-461

Subject: Response to Second Request for Additional Information

References: (1) Letter from M. Coyle (AmerGen) to U. S. NRC, "Clinton Power Station Application for Amendment of Facility Operating License No. NPF-62 for Extension of Diesel Generator Allowed Outage Time (LA-99-016)," dated December 29, 2000
(2) Letter from J. M. Heffley (AmerGen) to U. S. NRC, "Response to Request For Additional Information," dated March 22, 2001

In Reference (1), AmerGen Energy Company, LLC (i.e., AmerGen) proposed a change to Appendix A, Technical Specifications (TS), of Facility Operating License No. NPF-62 for the Clinton Power Station (CPS). Based on safety and design reviews, the proposed amendment involved a risk-informed TS change that would extend the Division 1 and Division 2 diesel generator (DG) Allowed Outage Time (AOT) from 72 hours to 14 days. AmerGen provided, in Reference (2), a response to a request for additional information stemming from the NRC review of the proposed amendment.

Following our response in Reference (2), the NRC staff identified additional questions concerning the fire risk analysis for CPS and the potential for a fire-induced Loss of Offsite Power (LOOP) event. In Reference (2) it was stated that the files containing the lists of basic events and initiators representing the individual fire scenarios for the fire PRA were reviewed to identify those that involve the LOOP initiator. As discussed in Reference (2), the CPS fire risk analysis results show that there are six scenarios in three fire zones (i.e., CB-3a, R-1t, and Main Control Room Panel 1H13-P870) that involve a LOOP.

Fire Zone CB-3a is the Auxiliary Electric Equipment Room at the 781' elevation of the Control Building. Potential fires in this zone are those due to temporary combustibles and those due to a postulated fire in cabinet 1PL89JA. Fire Zone R-1t is the general access area of the Radwaste Building at the 781' elevation. The only potential fire in this area is due to temporary combustibles. For the Main Control Room, the only potential

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fire that could involve a LOOP, is a postulated fire in panel 1H13-P870. It was confirmed that there are no special fire risks in any of these areas.

In addition, because of the NRC staff's questions concerning the potential significance of a fire in a cable spreading room, additional reviews of the fire risk associated with these rooms as well as other areas were performed. It has been determined that the cable spreading room at CPS represents a minimal fire risk for the following reasons.

1. There are separate cable spreading rooms for Division 1 and Division 2.
2. Most of the cable trays in the cable spreading rooms are fully enclosed.
3. The cable spreading rooms contain no cabinets or other fire source.
4. The cable spreading rooms are equipped with fire protection sprinklers.

However, it was determined that cables associated with the Reserve Auxiliary Transformer (RAT) and Emergency Reserve Auxiliary Transformer (ERAT) protective relay panels are routed through the same raceways in certain areas of the plant. While the CPS fire risk analysis did not identify all these areas as involving a LOOP, a fire in one of these areas could potentially result in the loss of both offsite sources of power due to a failure in the protective relay systems. Although the risk associated with this potential is unquantified, it is expected to be small based on physical characteristics of the cables and the cable trays. A general review of cable routing indicated that a potential exists in the following fire zones for these cables to be routed in close proximity within raceways.

1. Fire Zone A-2k: This fire zone consists of the non-safety related switchgear area located on the east side of the Auxiliary Building at elevation 762'-0".
2. Fire Zone A-3d: This fire zone consists of the non-safety related switchgear area located on the west side of the Auxiliary Building at elevation 762'-0".
3. Fire Zone A-3f: This fire zone consists of the Division 2 switchgear area and general access area at elevation 781'-0" of the Auxiliary Building.
4. Fire Zone CB-1f: The fire zone of concern consists of the west side of the general access and equipment area of the Control Building at elevation 762'-0".
5. Fire Zone CB-2: This fire zone consists of the Division 2 cable spreading room in the Control Building at elevation 781'-0".
6. Fire Zone CB-3a: This fire zone consists of the auxiliary electric equipment room in the Control Building at elevation 781'-0".
7. Fire Zone CB-4; This fire zone consists of the Division 1 cable spreading room in the Control Building at elevation 781'-0".
8. Fire Zone R-1i: The fire zone of concern consists of the southwest corner of the general access corridor (i.e., the R-S line) in the Radwaste Building at elevation 737'-0".
9. Fire Zone R-1p: The fire zone of concern consists of the general access area of the Radwaste Building at elevation 762'-0".
10. Fire Zone R-1t: This fire zone consists of the general access corridor of the Radwaste Building at elevation 781'-0".
11. Fire Zone T-1f: The fire zone of concern consists of the south end of the general access corridor (i.e., the R-S line) in the Turbine Building at elevation 737'-0".

During a conference call on June 1, 2001, among AmerGen, Exelon Generating Company, LLC and NRC personnel, an additional request for information was made. This additional request is related to the risks associated with a fire during the extended AOT DG maintenance period. Specifically, the NRC stated that the CPS fire risk is not sufficiently quantified in References (1) and (2) to ensure that the risk increase guidelines in Regulatory Guide 1.177 are met by the proposed TS change. As a result, the NRC requested CPS to commit to implement a series of compensatory actions whenever a Division 1 or Division 2 DG is taken out of service for more than 72 hours.

AmerGen reviewed the CPS fire risk analysis results as well as the results from the recent investigation to determine an appropriate basis for defining these compensatory actions. Based on this review, AmerGen commits to incorporate the following restrictions into the appropriate CPS procedure(s).

During Modes 1, 2, and 3, should a Division 1 or Division 2 DG be removed from service for more than 72 hours, then, within 72 hours of removal from service the following will be performed.

- Conduct walkdowns in Fire Zones A-2k, A-3d, A-3f, CB-1f, CB-2, CB-3a, CB-4, R-1i (southwest corner of R-S line), R-1p (southwest corner of R-S line), R-1t, and T-1f (south end of R-S line), confirming that there are no unauthorized combustibles or other unusual fire hazards in these areas.
- Inspect Main Control Room panel 1H13-P870, confirming that there are no unauthorized combustibles or other unusual fire hazards in the cabinet.
- Ensure that the fire protection sprinklers are available for Fire Zones CB-2, CB-3a, and CB-4.
- Hot work will not be permitted in the above areas during this extended maintenance period.

This submittal does not require a change to the proposed TS mark-ups provided in Reference (1). Furthermore, there are no additional changes to the TS or the associated Bases as a result of the response to this request. In addition, AmerGen has reviewed the justification and the Bases for No Significant Hazards Considerations contained in Reference (1). We have concluded that the responses to these additional requests do not alter the bases or conclusions provided in those assessments. In addition, the response to this request does not alter our previous determination that the proposed changes meet the criteria for a categorical exclusion from the requirement for an Environmental Impact Statement.

Should you have any questions concerning this letter, please contact Mr. T. A. Byam at (630) 657-2804.

Respectfully,

J. M. Heffley
Vice President
Clinton Power Station

JLP/blf

cc: Regional Administrator – NRC Region III
NRC Senior Resident Inspector – Clinton Power Station
Office of Nuclear Facility Safety – Illinois Department of Nuclear Safety