September 16, 2010

MEMORANDUM TO: Robert D. Carlson, Chief
Plant Licensing Branch III-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

FROM: Marshall J. David, Senior Project Manager***/RA/***
Plant Licensing Branch III-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

SUBJECT: TRIP REPORT FOR TOUR OF BYRON STATION, UNIT NO. 1, UPPER CABLE SPREADING ROOM, ON JUNE 2, 2010 (TAC NOS. ME0973 AND ME0974)

On June 2, 2010, Stephen J. Campbell (the former Chief, Plant Licensing Branch III-2, Nuclear Regulatory Commission (NRC), Office of Nuclear Reactor Regulation (NRR), Division of Operating Reactor Licensing (DORL)) and I were given a tour of the Byron Station (Byron), Unit No. 1, upper cable spreading room (UCSR) by the NRC residents during our site visit to Byron for the End of Cycle public meeting. We requested the tour of the UCSR to obtain visual information about its physical layout and accessibility, to supplement the information provided by Exelon (the licensee) related to a license amendment request associated with UCSR fire protection measures (March 26, 2009; Agencywide Documents Access and Management System Accession No. ML090861015).

Observations:

- Difficult to Access UCSR: To access the UCSR door, one must climb a 15 foot (approximately) ladder, step up and over heating, ventilation and air conditioning ducting, then step on to a small platform capable of holding two people at most. It was challenging for us to reach the UCSR door.

- Congested Inside UCSR: The interior of the UCSR is congested. Specifically, it is only possible to walk a few feet into the first fire zone before encountering floor-to-ceiling cable trays. Also, in most locations in the UCSR, it is impossible to stand erect.

- Hose Stations Inside UCSR: The hose stations for the UCSR are inside the UCSR.

- UCSR Floor Fire Seal Caulking Applied: Recently at Byron, during UCSR fire hose surveillance testing, water leaked onto the UCSR floor and then through the floor fire seals into an Auxiliary Electric Equipment Room cabinet located below the UCSR in a

separate fire area. Based on a limited sample, we noted that the licensee had applied a sealant at the penetration canister-to-floor interface to prevent such leakage in the future.

Conclusions:

- It would be extremely challenging for a member of the plant fire brigade, dressed in turnout gear, wearing a self-contained breathing apparatus, and carrying fire-fighting equipment, to reach the UCSR door and quickly enter the UCSR.

- It would be extremely challenging for members of the plant fire brigade, with visibility hampered by smoke, to find and pressurize a fire hose at one of the hose stations inside the UCSR and to fight a fire inside the UCSR.

- It would be extremely challenging for members of the plant fire brigade, in full gear with visibility hampered by smoke, to fight a fire in remote parts of the first fire zone, especially a fire in an elevated or remote cable tray, or to access and fight a fire in adjoining fire zones of the UCSR.

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