December 26, 2012

MEMORANDUM TO: Richard Correia, Director
Division of Risk Analysis
Office of Nuclear Regulatory Research

THRU: Kevin Coyne, Chief ***/RA/***
Probabilistic Risk Assessment Branch
Division of Risk Analysis
Office of Nuclear Regulatory Research

FROM: Donald M. Helton ***/RA/***
Probabilistic Risk Assessment Branch
Division of Risk Analysis
Office of Nuclear Regulatory Research

SUBJECT: NOTICE OF THE FOURTH CLOSED MEETING TO DISCUSS ONGOING OFFICE OF NUCLEAR REGULATORY RESEARCH CONFIRMATORY LEVEL 1 PROBABILISTIC RISK ASSESSMENT SUCCESS CRITERIA ANALYSES

DATE AND TIME: Thursday, January 24th, 2013
11:00 a.m.–12:00 p.m. eastern standard time (EST)
10:00 a.m.–11:00 a.m. central standard time (CST)

LOCATION: Telephone Bridge

PURPOSE: For the U.S. Nuclear Regulatory Commission's (NRC) Office of Nuclear Regulatory Research staff and Exelon staff to discuss ongoing confirmatory Level 1 probabilistic risk assessment (PRA) success criteria analyses for the Byron Generating Station nuclear power plant. Meeting topics will include discussion of (1) boundary conditions and qualitative results for medium loss-of-coolant accidents (injection requirements; cooldown and depressurization timing) and (2) boundary conditions for upcoming calculations related to sequence timing for loss of shutdown cooling in Mode 4 and Mode 5. These discussions and analyses do not relate to any ongoing or anticipated regulatory actions, but rather, are to confirm specific underlying modeling aspects in the agency's standardized plant analysis risk models (a continuation of an activity described further in NUREG-1953, "Confirmatory Thermal-Hydraulic Analysis to Support Specific Success Criteria in the Standardized Plant Analysis Risk Models—Surry and Peach Bottom"). Additional details are provided in the meeting agenda.

PARTICIPANTS:

NRC Offices
Office of Nuclear Regulatory Research
Office of Nuclear Reactor Regulation
Region 3

Outside Organizations
Exelon Corporation
Erin Engineering

CATEGORY:

This is a **noticed, but closed meeting**: The meeting has been closed for the following reasons: (a) there has been no public interest expressed in past public activities related to this work, (b) the meeting is an information exchange not related to any specific regulatory decision, and (c) closure of the meeting facilitates the discussion of facility details that are not in the public domain for security reasons (e.g., emergency operating procedures). Should a member of the public wish to participate in any future discussions between NRC and Exelon associated with this project, please contact the NRC staff meeting contact below.

CONTACT:

Donald Helton, RES/DRA/PRAB
301-251-7594
Donald.Helton@nrc.gov

ADMINISTRATIVE:

A draft agenda for the meeting is attached to this notice.

The NRC will provide telephone bridge line information prior to the meeting date.

Enclosure:
Draft Meeting Agenda

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NRC Offices
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OFFICE	RES/DRA/PRAB	RES/DRA/PRAB	RES/DRA
NAME	D. Helton	K. Coyne	R. Correia (D. Coe for)
DATE	12/21/12	12/21/12	12/26/12

OFFICIAL RECORD COPY

DRAFT MEETING AGENDA

DISCUSS ONGOING U.S. NUCLEAR REGULATORY COMMISSION OFFICE OF NUCLEAR REGULATORY RESEARCH CONFIRMATORY LEVEL 1 PROBABILISTIC RISK ASSESSMENT SUCCESS CRITERIA ANALYSES

TELEPHONE BRIDGE: TO BE ANNOUNCED

11:00 a.m. EST/10:00 CST	Role Call	All
11:05 a.m. EST/10:05 CST	Brief Refresher on Project Impetus and History	Donald Helton
11:10 a.m. EST/10:10 CST	Overview of Medium Loss-of-Coolant Accident Qualitative Results	Donald Helton

Two sets of medium-break loss-of-coolant accident analyses have been performed. The purpose of the first set of calculations is to investigate the minimal ECCS injection requirements for early injection considering different break sizes (ranging from 2- to 6-inch equivalent diameter), different minimal ECCS system availabilities (1 safety injection plus 1 residual heat removal (RHR) train; 2 of 4 cold-leg accumulators plus 1 RHR train), different assumptions about containment spray availability (0 of 2 trains available; 2 of 2 trains available during injection phase only; 2 of 2 trains available during injection and recirculation phases), and variations on whether the residual heat removal heat exchanger is available. The purpose of the second set of calculations is to investigate the timing to initiate cooldown activities in order to obviate the need for high-pressure recirculation, considering different break sizes (2- or 6-inch equivalent-diameter), cooldown initiation times (20 or 40 minutes), containment system availabilities (2 containment spray trains plus 0 reactor containment fan cooler (RCFC) units; 0 containment spray trains plus 1 RCFC unit; 4 RCFC units), and variations related to operator response upon observing temporarily rising reactor coolant system pressures.

11:30 a.m. EST/10:30 CST	Discussion of Loss of Shutdown Cooling Analysis	James Corson

Analyses will be performed to look at sequence timing for loss of shutdown cooling events during Mode 4 and Mode 5. Typical plant configurations and outage timing during these modes will be discussed to confirm the appropriateness of the selected boundary conditions (e.g., reactor coolant system pressure and temperature, pressurizer level, steam generator water level, main steam isolation valve status). Tentatively, calculation variations will include time since shutdown, initial steam generator water level, decay heat curve assumptions, and credited recovery actions.

11:50 a.m. EST/10:50 CST	Questions / General Discussion	All

If the discussion runs long, the phone bridge will be open until 12:30 p.m. EST / 11:30 a.m. CST.