

NRR-PMDAPEm Resource

From: Singal, Balwant
Sent: Tuesday, September 23, 2014 12:44 PM
To: 'pns3@pge.com'
Subject: Request for Additional Information (RAI) - License Amendment Request (LAR) 13-03 to Adopt NFPA 805 (TAC Nos. MF2333 and MF2334)
Attachments: MF2333-NFPA805-Radiation-DraftRAI.docx

Attached is a copy of the Radiation Release RAIs for LAR 13-03. Draft RAIs were transmitted to you on September 11, 2014 and a clarification was held on September 22, 2014. The licensee agreed to provide the RAI response by December 31, 2014. Please treat this e-mail as formal transmittal of RAIs.

Thanks.

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13-03 to Adopt NFPA 805 (TAC Nos. MF2333 and MF2334)
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DRAFT REQUEST FOR ADDITIONAL INFORMATION

LICENSE AMENDMENT REQUEST TO ADOPT

NATIONAL FIRE PROTECTION ASSOCIATION STANDARD 805

PERFORMANCE BASED STANDARD FOR FIRE PROTECTION

FOR LIGHT WATER REACTOR GENERATING PLANTS

PACIFIC GAS & ELECTRIC CO. (PG&E)

DIABLO CANYON POWER PLANT, UNITS 1 AND 2

DOCKET NO. 50-275, 50-323

Radiation Release RAI 01

Please describe the radiological criteria that were used to screen fire areas out of the review. Also, please describe the qualifications of the personnel conducting the screening and whether the screening was conducted by an expert panel or a limited number of individuals.

Radiation Release RAI 02

Pacific Gas and Electric (PG&E) Calculation SAP No. 9000041465, Page 7, describes the radioactive material container of interest in the quantities release calculations as a sea-land container, fully loaded with dry active waste (DAW), and provides a rational why only considering a fire related release from one container as reasonable. However, Diablo Canyon Power Plant (DCPP) Calculations DCA 9000041373 (liquid releases) and DCA 9000041374 (gaseous releases) assume a bounding source term on a DAW box 10-B-001. If box 10-B-001 is not a sea-land container, please provide a basis for using a DAW box reading 200 mrem/hr on its surface, rather than a sea-land container (reading 200 milli rem per hour (mrem/hr)) for estimating the bounding source term to resolve this discrepancy.

Radiation Release RAI 03

Table E-1 (Attachment E) of letter dated June 26, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13196A139) indicates that there are no engineered provisions to contain and monitor gaseous fire fighting effluents and smoke in the following areas;

- a. Fire Zones 27-A, 27-B, and 27-C in Building 117 A,
- b. Building 117 B,

- c. Area 10 Rotor Storage,
- d. Main Warehouse,
- e. Radioactive Storage Material storage in Building 117 –C,
- f. Building 519, Warehouse A,
- g. Yard Areas,
- h. Fire Zone 34, Roof of the Auxiliary Building, and
- i. Fire Zones 3-BB and 3-CC, Containment Penetration areas.

Several of these buildings/areas appear to have the potential for containing substantially more radioactivity than the fully loaded DAW container used as the source terms in DCPD Calculations DCA 9000041373 and DCA 9000041374. Please describe the physical or administrative controls (e.g., limiting the amount of radioactivity stored in the area) provided to ensure that a fire in each of these areas will not involve more radioactivity than the bounding source term used in the calculations.

Radiation Release RAI 04

Table E-1 (referenced in RAI 03) indicates that Fire Zone 27-C is used for contaminated oil storage. Please provide a basis for concluding that the radioactive material release fractions used in DCPD Calculations DCA 9000041373 and DCA 9000041374, which are based on a fire in dry active waste, are conservative and bounding the fraction of radioactivity that would be released from burning oil, or any other waste form stored in the areas listed in Radiation Release RAI 03.

Radiation Release RAI 05

Assumption 3.3 on Page 5 of DCPD Calculation DCA 9000041373 states that the fraction of the radioactive material contained in the “bounding” DAW container released as liquid effluent is equal to the fraction assumed for gaseous releases in DCPD Calculation DCA 9000041374. This appears to be a very non-conservative assumption, since only 0.1% of the activity in the container is assumed to be released as an airborne effluent, leaving 99.9% of the activity to potentially be washed away as a liquid effluent. Please provide a technical justification for this assumption.

Radiation Release RAI 06

PG&E Calculation SAP No. 9000041465, “NFPA 805 Radiological Release Review,” Page 14, has three recommendations resulting from the review. Please confirm that these recommendations will be implemented as part of the transition to the National Fire Protection Association (NFPA) Standard 805, “Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants” (NFPA 805), 2001 Edition.

Radiation Release RAI 07

For the areas listed in Attachment E, Table E-1 that take credit for the building they are located in' for containment and confinement of effluents, please state whether there are any building design features (roll-up doors, windows, etc.), similar to the louvered ventilation intake for the containment penetration areas (see Radiation Release RAI 03.i above), that can divert either liquid or airborne effluents from firefighting operations. If yes, please describe the controls provided to ensure the diverted effluents are not released offsite, or provide a quantitative assessment showing the radiological release criteria will be met by such a release.

Radiation Release RAI 08

Please provide the NRC staff with the information contained in the following calculations referenced in letter dated June 26, 2013 Section 4.4.2:

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- PG&E Calculations SAP No. 9000041465
- DCPP Calculation DCA 9000041373
- DCPP Calculation DCA 9000041374)