



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

August 1, 2019

Mr. Don Eichelberger
628 Lyon St., #1
San Francisco, California 94117

Dear Mr. Eichelberger:

Your petition dated April 25, 2019 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML19150A381), was referred to the Office of Nuclear Reactor Regulation pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 2.206, "Requests for action under this subpart," of the U.S. Nuclear Regulatory Commission's (NRC's) regulations. You requested that Diablo Canyon Nuclear Power Plant, Unit 1 (Diablo Canyon, Unit 1) have independent inspections completed on that Unit's reactor welds, and that a relief request action dated June 19, 2015 (ADAMS Accession No. ML15168A024), be reversed.

As the basis for your request, you stated that the welds found in Unit 1 "contain excessive amounts of copper" which are then "susceptible to embrittlement." The information related to this request was based on Appendix A of a 2017 report published by Fairwinds Assoc., Inc., "Neutron Embrittlement at Diablo Canyon Unit 1 Nuclear Reactor," filed as expert testimony of Arnie Gunderson in a case before the California Public Utilities Commission.

Our Petition Review Board (PRB) has reviewed your submittal in accordance with Management Directive 8.11 (MD 8.11), "Review Process for 10 CFR 2.206 Petitions" (ADAMS Accession No. ML18296A043). The PRB's initial assessment was that your submittal did not meet the criteria for consideration under 10 CFR 2.206, in accordance with MD 8.11, Section III.C, because the issues raised in your petition have already been the subject of the NRC staff review and evaluation.

On July 11, 2019, by e-mail and on July 16, 2019, by telephone, you were informed of the PRB's initial assessment as stated above. During the telephone discussion on July 16, 2019, the petition manager offered you an opportunity to meet with the PRB to discuss the initial assessment. In response, you informed the petition manager that you chose to not meet with the PRB.

The PRB's final determination is that your request does not meet the criteria for consideration under 10 CFR 2.206 because the issues raised in your petition have already been the subject of the NRC staff review and evaluation as explained below.

The NRC limits each reactor pressure vessel (RPV) allowable pressures and temperatures based on the fracture toughness of the RPV. Specifically, for normal operating conditions the high copper content of the Diablo Canyon, Unit 1, RPV axial weld is taken into consideration when the NRC staff reviews the licensee's periodic pressure-temperature (P-T) limit submittals to ensure the requirements of 10 CFR Part 50, Appendix G, "Fracture Toughness Requirements," are met. For the postulated severe cooling transients, the Diablo Canyon,

Unit 1, high copper axial weld is also periodically reviewed to ensure that the requirements of 10 CFR 50.61, "Fracture toughness requirements for protection against pressurized thermal shock [PTS] events," are met. Some of the NRC's previous considerations of these issues can be found in the following documents:

1. "Safety Evaluation Report, Related to the License Renewal of Diablo Canyon Nuclear Power Plant, Units 1 and 2" (NRC's recent evaluation of P-T limits and PTS for Diablo Canyon, Unit 1), dated June 2011 (ADAMS Accession No. ML11153A103).
2. Pacific Gas and Electric Company (PG&E) Letter DCL-14-021 to U.S. Nuclear Regulatory Commission "Reactor Coolant System Pressure and Temperature Limits Report for Units 1 and 2" (Diablo Canyon, Unit 1 P-T Limits), dated March 25, 2014 (ADAMS Accession No. ML14084A204).

Regulatory Guide 1.99, Revision 2, "Radiation Embrittlement of Reactor Vessel Materials," dated May 1988 (ADAMS Accession No. ML003740284), provides a method to estimate embrittlement of RPV materials due to the copper and nickel contents. The chemistry contents and the estimated time dependent neutron fluence jointly determine a quantitative estimation of embrittlement called nil-ductility-transition reference temperature (RT_{NDT}). For the PTS concern, this RT_{NDT} value is evaluated at the end of operation using the surface neutron fluence and is given a new name, RT_{PTS} . The 10 CFR 50.61 PTS requirements require the RT_{PTS} values for all RPV beltline materials be below the PTS screening criteria to ensure protection against the PTS events. The safety evaluation report for the Diablo Canyon, Unit 1, 60-year license renewal application (listed as Document No. 1 above) concluded that the Diablo Canyon, Unit 1, high copper axial weld will not exceed this PTS criterion until 2032. To date, this estimation remains current.

Thank you for bringing these issues to the attention of the NRC.

Sincerely,

/RA/

Blake D. Welling, Deputy Director
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-275

cc: Mr. James M. Welsch
Senior Vice President, Generation
and Chief Nuclear Officer
Pacific Gas and Electric Company
Diablo Canyon Power Plant
P.O. Box 56
Mail Code 104/6
Avila Beach, CA 93424

Listserv

SUBJECT: OEDO-19-00131 – 2.206 PETITION – DIABLO CANYON ULTRASOUND WELD INSPECTIONS (EPID L-2019-CRS-0000) DATED AUGUST 1, 2019

DISTRIBUTION: OEDO-19-00131

PUBLIC

PM File Copy

RidsEdoMailCenter Resource

RidsNrrOd Resource

RidsNrrDorI Resource

RidsNrrDorLpl4 Resource

RidsNrrLAPBlechman Resource

RidsNrrMailCenter Resource

RidsNrrPMDiabloCanyon Resource

RidsOcaMailCenter Resource

RidsOgcMailCenter Resource

RidsOpaMail Resource

RidsRgn4MailCenter Resource

RidsDmlrMvib Resource

SSheng, NRR

JJosey, RIV

MHaire, RIV

PBuckberg, NRR

ADAMS Accession Nos.:

GT Package: ML19078A287;

Letter: ML19204A104

***concurrence by email**

OFFICE	NRR/DORL/LPL4/PM	NRR/DORL/LPL1/LA	NRR/DORL/LPL2-2*	NRR/DORL/LPL1/BC
NAME	JKlos	PBlechman w/comment	PBuckberg	RPascarelli
DATE	07/23/19	07/25/19	07/25/19	07/30/19
OFFICE	NRR/DMLR/MVIB/BC*	OGC*	NRR/DORL/D	PRB Chair
NAME	DAlley	JGillespie	CErlanger	BWelling
DATE	07/25/19	07/29/19	07/31/19	08/01/19

OFFICIAL RECORD COPY