From: Samson Lee
To: Schrader, Kenneth
Cc: Richardson, Michael
Subject: Diablo Canyon online monitoring audit question 4 (EPID: L-2024-LLA-0179)
Date: Wednesday, July 16, 2025 3:04:00 PM

By letter dated December 31, 2024 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML24366A169), Pacific Gas and Electric Company (PG&E, the licensee) submitted a license amendment request (LAR) for Diablo Canyon Nuclear Power Plant, Units 1 and 2 (Diablo Canyon). The proposed amendments would revise Technical Specification (TS) 1.1, "Definitions," and add TS 5.5.21, "Online Monitoring Program," to use online monitoring methodology. The licensee proposes to use online monitoring (OLM) methodology as the technical basis to switch from time-based surveillance frequency for channel calibrations to a condition-based calibration frequency based on OLM results. The proposed amendments are based on the U.S. Nuclear Regulatory Commission (NRC)-approved Analysis and Measurement Services Corporation (AMS) topical report (TR) AMS-TR-0720R2-A, "Online Monitoring Technology to Extend Calibration Intervals of Nuclear Plant Pressure Transmitters," August 2021 (ML21235A493).

The NRC staff has identified the need for a regulatory audit to examine the licensee's non-docketed information with the intent to gain understanding, to verify information, or to identify information that will require docketing to support the basis of the licensing or regulatory decision. The NRC staff issued an audit plan dated February 25, 2025 (ML25051A270). The NRC staff has provided audit questions 1 through 3 in an email dated May 15, 2025 (ML25135A434). The NRC staff is providing audit question 4 below, which is a follow-on question from audit question 1. If time allows, please prepare responses to these questions in advance. It would facilitate the audit discussions, especially if responses can be posted in the online portal as they become available.

Audit Question 4:

Pacific Gas and Electric Company (PG&E, the licensee) proposes to use Measurement and Test Equipment (M&TE), which includes the plant computer, to collect data and check if a transmitter needs calibration. The licensee plans to measure how much each transmitter's readings change over time, or drift, and compare these to a set Online Monitoring (OLM) limit. For certain cases, the drift being measured is very small. However, the documents referenced in the LAR indicate that the uncertainties associated with the proposed M&TE to measure these changes can be large.

Please explain how PG&E has determined that the M&TE being proposed, which includes the plant process computer, is capable of reliably measuring the instrument channel drift with an accuracy that will not mask the drift being measured given the associated uncertainty in these configurations. For example, describe how the proposed M&TE, inclusive of digital signal conversion and algebraic presentation, is sufficiently accurate to reliably measure the drift in the transmitters included in the OLM program to support the decision making (for example, see Annex H of Recommended Practice 67.04.02, "Methodologies for the Determination of Setpoints for Nuclear Safety-Related Instrumentation," approved December 10, 2010, International Society of Automation (ISA)).

Docket Nos. 50-275 and 50-323