



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

May 4, 2021

Matt J. Feyrer, Site Manager
GE Hitachi Nuclear Energy
Vallecitos Nuclear Center
6705 Vallecitos Rd
Sunol, CA 94586

SUBJECT: INDEPENDENT SURVEY RESULTS FOR THE SHUTDOWN REACTORS AT
THE VALLECITOS NUCLEAR CENTER

Dear Mr. Feyrer:

On February 5-6, 2019, the U.S. Nuclear Regulatory Commission's (NRC) contractor, Oak Ridge Institute for Science and Education (ORISE), conducted independent surveys at two of the shutdown reactors, the Vallecitos Boiling Water Reactor (VBWR) and the Empire State Atomic Development Associates Vallecitos Experimental Superheat Reactor, at the GE Hitachi (GEH) Vallecitos Nuclear Center (VNC) in Sunol, California. Soil samples from an exploratory boring near the third VNC shutdown reactor, the GE Test Reactor (GETR), were also analyzed.

The report of that survey is attached for GEH use. Also, during an NRC inspection on March 25-28, 2019, NRC collected 15 smear samples and took custody of 14 others from GEH. The 29 total locations were from throughout the VBWR and GETR. Sixteen samples were collected in the basement and first floor of the VBWR and 13 samples were collected from the GETR basement, first floor, and top floor. These samples were sent to another NRC contractor, the Radiological and Environmental Sciences Laboratory (RESL), for analysis. NRC provided the RESL results to ORISE for inclusion in Appendix D of the ORISE report. The ORISE report is provided for information only, no action is required.

The objectives of the NRC's surveys were to independently collect radiological data using survey instruments and smear samples to measure radiation levels, identify radionuclides of concern (ROCs), and determine relative fractions between ROCs that are present on contaminated surfaces in the buildings. These data can provide a technical basis for developing and evaluating weighted efficiencies for hand-held survey instruments used to measure surface activity levels. Therefore, it is recommended that GEH should review the ORISE and RESL smear data and compare it to GEH's survey data. Differences between the NRC's contractors and GEH's onsite or offsite (contractor) laboratory results can be attributed to several factors, including the measurement methods used by the laboratories. Please note that any NRC sampling and analysis done in the future to verify GEH's survey results of the shutdown reactors at the VNC will apply the same or similar laboratory measurement methods used by ORISE and RESL as described in this report.

In accordance with 10 CFR 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's Agencywide

Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Please call the NRC Senior Project Manager for the VNC shutdown reactors, Jack Parrott, at 301-415-6634 or e-mail jack.parrott@nrc.gov with any questions.

Sincerely,



Signed by Watson, Bruce
on 05/04/21

Bruce A. Watson, Chief
Reactor Decommissioning Branch
Division of Decommissioning, Uranium Recovery
and Waste Programs,
Office of Nuclear Material Safety
and Safeguards

Docket Nos. 50-18, 50-183, and 50-70

Attachment: ORISE Independent Survey Report

cc: GEH mailing list
GEH Listserv

Independent Survey Results for the Shutdown Reactors at the Vallecitos Nuclear Center, VBWR (License # DPR-1, Docket # 50-18), EVESR (License # DR-10, Docket # 50-183) and GETR (License # TR-1, Docket # 50-70) DATE May 4, 2021

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DATE	Apr 27, 2021	May 3, 2021	May 4, 2021	May 4, 2021

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