



Sandia
National
Laboratories

ANNUAL SITE
ENVIRONMENTAL
SUMMARY REPORT

2023

KAUA'I

HAWAII

Kaua'i's Na Pali Coast
by Christopher Hall



DOE/NNSA and Sandia are committed to ***safeguarding the environment, assessing sustainability practices, and ensuring the validity and accuracy of the monitoring data*** presented in this summary of the 2023 SNL/KTF annual site environmental report.

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This report summarizes the environmental protection and monitoring programs in place at Sandia National Laboratories, Kaua'i Test Facility (SNL/KTF) during calendar year 2023. While most 2023 program activities were performed continuously, they are reported on a calendar-year basis unless otherwise noted. Programs based on the fiscal year operate from October 1 through September 30, annually.

Detailed information on these programs can be found in the full annual site environmental report, accessed via the QR code.





Kaua'i Test Facility

ENVIRONMENTAL MANAGEMENT SYSTEM

The Environmental Management System is Sandia's primary platform for implementing the environmental management programs that help achieve annual site sustainability goals. A robust environmental management system ensures a structured approach to identifying environmental aspects, setting environmental objectives, and monitoring environmental performance. Sandia's Environmental Management System is ISO 14001:2015 certified at the New Mexico and California sites. While operations at SNL/KTF are required to comply with the environmental management system requirements, operations have not been included in the ISO 14001:2015 certification due to the limited scale of operations there.

For fiscal year 2023, personnel identified greenhouse gas emissions as a significant aspect for SNL/KTF operations.

Sandia has established environmental programs at SNL/KTF (listed in the following pages) that are instrumental in the implementation, maintenance, and continual improvement of the Environmental Management System at this site.





Kilauea, Kaua'i

Sandia personnel define sustainability practices and goals in a site sustainability plan, which provides a roll-up of sustainability data from all primary Sandia sites, including SNL/KTF.

Highlights for SNL/KTF in 2023 include implementing and actively using power management features on eligible computers and monitors; improving MAN-004, Sandia National Laboratories/New Mexico Design Standards Manual; adding sustainable acquisition reporting requirements into the request for information and request for quote processes; and creating rules in the Oracle software system to add the updated 350APR “green language” clause for sustainable acquisition and affirmative procurement into applicable contract categories.

SITE SUSTAINABILITY





Allerton Gardens

Occurrences are defined as “events or conditions that adversely affect, or may adversely affect, DOE (including the National Nuclear Security Administration) or contractor personnel, the public, property, the environment, or the DOE mission.”

ENVIRONMENTAL PERFORMANCE

DOE/NNSA personnel assess environmental performance through data measures and indicators and then report on this as part of an annual performance evaluation. The performance evaluation is the DOE/NNSA report card that ascribes a rating for five key performance goals and an overall rating. During the most recent evaluation, Sandia earned a rating of very good for the mission enablement performance goal, which includes the objective of delivering effective, efficient, and responsive environment, safety, and health quality. By exceeding almost all the objectives and key outcomes under the performance goals, Sandia received an overall rating of excellent for fiscal year 2023.

For the annual site environmental report, personnel queried the Occurrence Reporting and Processing System database for occurrences related to environmental programs and compliance at SNL/KTF. During 2023, zero occurrences met the criteria for reporting in the annual site environmental report.

Additionally, all environmental monitoring was conducted in accordance with program-specific plans that contain applicable quality assurance elements and meet appropriate federal, state, and local requirements for conducting sampling and analysis activities.





Hawaiian goose (*Branta sandvicensis*)

Program personnel support compliance with air quality regulations, permits, and other requirements. The Sandia Field Office has a Noncovered Source Permit for the two diesel fired power generators at SNL/KTF. Rocket launch emissions are included in the review against Toxic Release Inventory reporting thresholds.

2023 Program activities and results:

In 2023, the generators operated within permitted limits. Sandia personnel prepared two monitoring reports and an annual emissions report that were submitted to the State of Hawai'i by the Sandia Field Office within required timelines. The highest total combined operating hours for the generators for a rolling 12-month period was 556 hours, which occurred from April 2022 to March 2023.

**AIR QUALITY
COMPLIANCE PROGRAM**





Kaua'i ocean view

Sandia personnel use on-site meteorological instruments at SNL/KTF during test periods to characterize ground-level and atmospheric wind conditions. Climatic information is obtained from Pacific Missile Range Facility personnel when needed, and the Pacific Missile Range Facility Emergency Operations Center automatically issues severe weather notifications to all SNL/KTF resident personnel.

The Kaua'i Test Facility has been an active rocket-launching facility since 1962. Sandia National Laboratories personnel support a variety of missions at the site, including research and development, operational training, and test and evaluation. Launch projects are conducted for various government agencies and organizations on a noninterference basis.

METEOROLOGY PROGRAM





Experimental Rocket Launch

CHEMICAL INFORMATION SYSTEM

The Chemical Information System is a comprehensive chemical information tool that tracks workplace chemical and biological containers by location. The primary drivers for the Chemical Information System are state and federal regulations, including the Emergency Planning and Community Right-to-Know Act.

SNL/KTF personnel use the Chemical Information System to track and manage chemicals. The system provides the chemical or product name, its location and quantity, and information about who is responsible for the chemical. Chemical hazards are reported on safety data sheets, and the Chemical Information System library currently contains more than 129,000 safety data sheets for use by any Sandia site. This electronic inventory helps chemical users and managers assess and manage workplace hazards. Easy access to this inventory facilitates availability searches. It also improves the ability to share chemicals, reducing sources, which minimizes chemical purchases and waste disposal expenses.

2023 Program activities and results:

In 2023, personnel tracked chemical containers at SNL/KTF in the Chemical Information System, including information about any related chemical hazards.





Building K651, Balloon Release Building, 2006
(photographer Joseph Bonaguidi)

CULTURAL RESOURCES PROGRAM

Cultural Resources Program personnel focus primarily on long-term preservation and protection of cultural resources and cultural resource compliance to maintain the heritage of Sandia operating areas and their landscapes. Long-term preservation and protection also ensure that data are available to make proper land-use decisions and to assist with environmental planning. Cultural Resources Program personnel focus on two main cultural resource categories: archaeological resources and historic buildings.

2023 Program activities and results:

In 2023, Sandia archaeological staff reviewed five projects at SNL/KTF through National Environmental Policy Act (NEPA) checklists. One project had proposed ground-disturbing activities, which required an archaeological survey. Personnel conducted a baseline survey as part of the project-specific survey. Permitted, local Hawai'ian archaeologists who met the State of Hawai'i archaeological requirements completed the archaeological surveying on-site.

No projects affecting historic buildings were undertaken in 2023.





Laysan albatross (*Phoebastria immutabilis*) nest located on November 29, 2023

ECOLOGY PROGRAM

Ecology Program personnel conduct project assessments to ensure compliance with wildlife regulations and laws and to support land use decisions at SNL/KTF.

2023 Program activities and results:

In accordance with the Endangered Species Act and the Migratory Bird Treaty Act, contracted biologists performed routine wildlife surveys, nocturnal lighting compliance surveys, pre- and post launch area surveys, and preconstruction surveys. All nighttime operations adhered to prescribed biological mitigations during the dark skies period from September 15 to December 15, 2023. No fallout for band-rumped storm petrels, Hawai'iian petrels, or Newell's shearwaters was reported at SNL/KTF in 2023.

From November to December 2023, biologists located five Laysan albatross nests containing one egg each along the SNL/KTF boundary. Active nest buffers were established, and Ecology Program personnel coordinated with Pacific Missile Range Facility Natural Resources staff and U.S. Department of Agriculture Wildlife Services personnel to implement appropriate management actions.

Personnel installed two passive acoustic recording devices at two locations in 2023 to further understand use of the site by Hawai'iian hoary bats. Data will be collected year-round and analyzed routinely.

No mitigation measures were necessary to protect Pacific golden plovers in 2023, and no nesting attempts were documented for the Hawai'iian goose at SNL/KTF in 2023.





NATIONAL ENVIRONMENTAL POLICY ACT PROGRAM

Poipu Beach, Kaua'i, sunset

NEPA Program personnel provide technical assistance to ensure that Sandia operations and activities are reviewed for NEPA compliance at all Sandia sites. For all proposed projects and activities, project owners must complete a NEPA checklist using the online NEPA module application. After reviewing a NEPA checklist, NEPA Program personnel determine whether proposed projects and activities have been evaluated in existing NEPA documentation. The checklist is forwarded to the Sandia Field Office if the proposal is not covered by existing NEPA documentation. In addition, other relevant environmental program subject matter experts review NEPA checklists to identify any applicable environmental permitting or other requirements.

2023 Program activities and results:

In 2023, NEPA Program personnel reviewed eight NEPA checklists for ongoing activities at SNL/KTF, including an annual launch checklist and a facilities operations checklist for the site. Program personnel improved NEPA Program outreach and support for SNL/KTF, which enhanced project planning by tracking long-lead requirements and verifying that all requirements were met before work began. NEPA Program personnel also supported several upcoming projects that have not started yet, including plans for the construction of a Mission Support Building that will replace current administrative facilities and the negotiation of a land use permit with the U.S. Navy.



Island of Kaua'i

Operations at SNL/KTF generate common office and household solid waste. The site is also classified as a very small quantity generator of hazardous waste and does not have a Resource Conservation and Recovery Act permit. Personnel follow applicable requirements for solid waste and hazardous waste. U.S. Environmental Protection Agency Region 9 and the Hawai'i State Department of Health issued a hazardous waste generator identification (HI-0000-363309) to Sandia on September 23, 1994.

2023 Program activities and results:

Hazardous waste was generated in 2023 through normal operations at SNL/KTF. Waste management operations at SNL/KTF are in compliance with Hawai'i regulations applicable to very small quantity generators of hazardous waste (Hawai'i Administrative Rules, Title 11, chapters 260, 261, 262, and 268). No asbestos-containing materials were removed in 2023.

WASTE MANAGEMENT PROGRAM





Poipu Beach sunset

WATER QUALITY AND ENVIRONMENTAL RELEASE, RESPONSE, AND REPORTING PROGRAMS

Water Quality Programs at SNL/KTF include stormwater and wastewater discharge programs. Drinking water is obtained through the Pacific Missile Range Facility public water system. There are no drinking water or groundwater monitoring wells at SNL/KTF.

Environmental Release, Response, and Reporting Program personnel at SNL/KTF are contacted in the event of any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of material into the environment, which may include (but is not limited to) soil, water, air, and drain systems.

2023 Program activities and results:

There were no reportable releases in 2023 at SNL/KTF. Personnel inspected all three on-site septic tanks, and pumped one tank. There were no wastewater sampling events in 2023. No construction activities required Construction General Permit coverage during 2023. In summary, there were no water quality compliance issues in 2023.





Rocket launch at the Kaua'i Test Facility

OIL STORAGE PROGRAM

Oil Storage Program personnel support regulatory compliance associated with the management, operation, and maintenance of oil storage containers and equipment at SNL/KTF. Aboveground oil storage containers at SNL/KTF operate under the Pacific Missile Range Facility Spill Prevention, Control, and Countermeasure Plan as required by 40 CFR 112, Oil Pollution Prevention. An underground gasoline storage tank (2,500 gallons) is maintained on-site and is subject to regulation under the Hawai'i Administrative Rules, Title 11, Chapter 280.1, "Underground Storage Tanks," and is permitted with the Hawai'i State Department of Health.

2023 Program activities and results:

In 2023, regulated oil storage containers and equipment at SNL/KTF consisted of four used oil storage drums, three generator base tanks (two stationary and one mobile), one underground fuel storage tank, one aboveground fuel storage tank, five oil-filled electrical transformers, and two hydraulic oil equipment reservoirs. In 2023, personnel performed the required annual inspection and testing of the underground storage tank monitoring system, and identified no issues or concerns. Throughout 2023, routine visual inspections were performed on aboveground oil storage containers on a monthly basis, annually, or as part of preventive maintenance. There were no reportable oil spills in 2023.





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