SAFE, SECURE, AND SUSTAINABLE OPERATIONS

Conducting safe, secure, and environmentally sound operations and modernizing the Laboratory's infrastructure to meet evolving mission needs

In response to the COVID-19 pandemic, LLNL Health Services Department administered more than 2,300 vaccines and boosters in FY 2022.

Committed to the highest level of operational performance, LLNL implements best practices in environment, safety, and health (ES&H), and security. Management systems support continuous improvement in work practices. Prudent risk management coupled with active measures to prevent accidents ensures the safety of employees and the public. Investments are targeted to modernize the Laboratory's infrastructure and continually improve operations.

RETURN TO NEW NORMAL

At the start of FY 2022, the Laboratory began a deliberate process to "Return to New Normal" (RTNN). The new normal represents an exciting way for LLNL to deliver on its national security mission while providing an enhanced level of flexibility to meet the work–life balance needs of the workforce. It builds on the Laboratory's successful mission delivery and the lessons learned in providing efficient, effective operations since the onset of the COVID-19 pandemic. This hybrid work environment accommodates telecommuting—consistent with employees' work responsibilities. Employees partner with their supervisors, project leaders, and group leaders to develop a telework agreement for approval. These agreements are periodically reviewed to ensure that the arrangements are working well.

RTNN persevered through the Delta and Omicron phases of the COVID-19 pandemic. The Health Services Department (HSD) performed outstandingly in its response to the evolving COVID-19 requirements and automated numerous aspects of the COVID-19 workflow. LLNL's clinic responded to 23 percent more COVID-19 hotline emails and calls than in FY 2021. HSD administered almost double the onsite tests (nearly 5,900) compared to the previous year and provided more than 4,300 at-home tests to employees as part of an assurance testing program. HSD also administered more than 2,300 COVID-19 vaccinations and boosters in FY 2022. The Laboratory lifted its masking requirement for all indoor spaces in March 2022 and continues to operate in accordance with local conditions.

Specialists in LLNL's Project Management Office oversee hundreds of construction projects ongoing at the Laboratory.

WORKER SAFETY AND HEALTH

As exemplified by the Laboratory's actions in response to the COVID-19 pandemic, employee safety and health are paramount. A comparable level of attention to safety applies to all workers on site. The LLNL Project Management Office celebrated 1 million safe hours of work on construction projects between August 2020 and October 2022. The safe hours span nearly 200 projects that included almost 40 general contractors and typically 200 to 300 workers on site daily. Within LLNL, the Worker Safety and Health (WS&H) program assigns integrated safety teams to work in partnership with directorates to help them meet mission deliverables while ensuring employees' safety and ES&H regulatory compliance. For example, WS&H's Biosafety Office supported operations that resulted in zero spills, animal bites, exposures, or physical inventory discrepancies throughout FY 2022. The office also manages biological materials permits for programs.

ENVIRONMENTAL MANAGEMENT

LLNL strives to maintain a safe, secure, and efficient operational environment for its employees and neighboring communities. The *2021 Site Annual Environmental Report* (issued in October 2022) documents compliance with environmental standards and monitoring results. This year, with support from LLNL subject matter experts, NNSA prepared a draft Site-Wide Environmental Impact Statement (SWEIS) for Continued Operation of Lawrence Livermore National Laboratory. The draft SWEIS analyzes the potential environmental impacts of ongoing operations and proposed projects and activities at both the Laboratory's main site and Site 300 for approximately the next 15 years. Among the many activities carried out in FY 2022, LLNL environmental specialists completed field inspections to verify compliance, improve the risk posture related to greenhouse gases (GHG), and help to set up strategic infrastructure initiatives to reduce GHG releases.

ATTENDING TO INFRASTRUCTURE NEEDS

Modern infrastructure is important to attracting and retaining LLNL's world-class staff and continuing mission success. In addition to aggressive ongoing and recently completed new construction (p. 23), the Laboratory is demolishing outdated facilities, refurbishing facilities where cost effective, and attending to a maintenance backlog. In FY 2022, demolition of Building 175, which supported LLNL's former Uranium Atomic Vapor Laser Isotope Separation Program, was completed and the pool-type reactor in Building 280 was safely removed to prepare for facility demolition. Both projects were challenging due to the facilities' level of contamination and are important to providing buildable space for new improved structures within LLNL's one-square-mile area.

To cost-effectively reduce the maintenance backlog, the Laboratory is developing improved management tools to prioritize work. Moreover, LLNL is providing leadership within NNSA in developing and applying data-intensive "science-based" tools to enhance infrastructure management. Assessment of risks based on current and predicted future condition, together with prioritization and timely scheduling of investments, enables more cost-effective modernization of NNSA's aging infrastructure.

SUPPORT OF NUCLEAR CRITICALITY SAFETY

Nuclear criticality safety staff provided outstanding operational support at LLNL's Superblock and the Radioactive and Hazardous Waste Material facility. They also engaged in activities at the Nevada National Nuclear Security Site, such as performing criticality safety evaluations for Nimble and other upcoming subcritical experiments (p. 7). In FY 2022, nuclear criticality safety personnel were called upon as expert instructors to teach two hands-on training courses to qualify as a nuclear criticality safety engineer at DOE sites. Division personnel were also invited to be guest lecturers at the Nuclear Data Summer School held at UC Davis, as part of the Nuclear Science and Security Consortium, a university–national laboratories collaboration funded by DOE.

SUPPLY CHAIN MANAGEMENT

In FY 2022, LLNL's purchasing system successfully completed a Procurement Evaluation and Re-engineering Team (PERT) review, which is conducted by DOE every six years. Livermore was recognized for employing procurement best practices. In support of mission delivery, the Laboratory crossed the $1 billion threshold in annual procurements—including custom laser diodes, field effect transistors, components for high-performance computers, construction of new office and laboratory buildings, fire department services, and furniture services. Those expenditures included $420 million to small businesses, which had a beneficial impact on the local community.