



Department of  
Toxic Substances  
Control

*Preventing  
environmental  
damage from  
hazardous waste,  
and restoring  
contaminated  
sites for all  
Californians.*



State of California



California  
Environmental  
Protection Agency

Fact Sheet, October 2007

# Lawrence Livermore National Laboratory – Closure of Building 233 Container Storage Unit

## Introduction

The Department of Toxic Substances Control (DTSC) invites you to review and comment on the draft Closure Plan for the Building 233 Container Storage Unit at the Lawrence Livermore National Laboratory (LLNL), located in the City of Livermore, Alameda County. The Environmental Protection Agency (EPA) identification number for this facility is CA2890012584.



**The 45-day public comment period for this project will run from Oct. 26, 2007 to Dec. 10, 2007. Please send your comments to:**

**Mr. Ryan Batty**

**DTSC Project Manager**

**8800 Cal Center Drive**

**Sacramento, CA 95826**

**Alternatively please email comments to [RBatty@dtsc.ca.gov](mailto:RBatty@dtsc.ca.gov) or fax comments to (916) 255-3697 (Attn: Ryan Batty).**

**Please ensure mailed comments are dated no later than Dec. 10, 2007.**

**For public participation questions please call: Mr. Jesus Cruz, Public Participation Specialist at 1 (888) 495-5651**

**Informacion en Espanol, llame a Jesus Cruz al 1 (888) 495-5651**



## Facility Description

LLNL is owned by the U.S. Department of Energy (DOE) and is jointly operated by DOE and Lawrence Livermore National Security, LLC. The facility conducts research in the following areas; nuclear weapons, magnetic fusion energy, laser fusion and laser isotope separation, biomedical and environmental sciences, and applied energy technology.

### Facility (LLNL Site) History

Prior to 1942 the LLNL site was part of Wagoner Ranch. In 1942, the U.S. Navy purchased the site for use as the Livermore Air Station. The facility was an active air base during the Second World War and continued as a military research center after the war. Initial research at the site included the development of nuclear weapons.

### Building 233 CSU History

Building 233 (B-233) was constructed in 1960. The B-233 Container Storage Unit (CSU) was added later and was used for storage of hazardous waste in approved containers, such as 55-gallon drums, from November 1989 and October 2000. The B-233 CSU was a Resource Conservation and Recovery Act (RCRA) Interim Status Unit. The CSU consists of two cells referred to as the north cell and the south cell.

The B-233 CSU is of simple construction. The west wall of the CSU is a common wall shared with Building 233. The north, south and east walls of the CSU are of wire mesh construction with wooden slats for protection from the elements. The CSU cells also have a sheet metal roof to prevent rainwater from entering the secondary containment structure. The floor and retaining walls of the CSU are epoxy coated. Refer to Figure 2.

A list of chemical constituents of concern (COCs) has been developed for the project. The list was generated based on a records search and historical partial closure data. The list includes volatile organic compounds, metals and radioactive materials. The full list of COCs can be found in the draft Closure Plan.

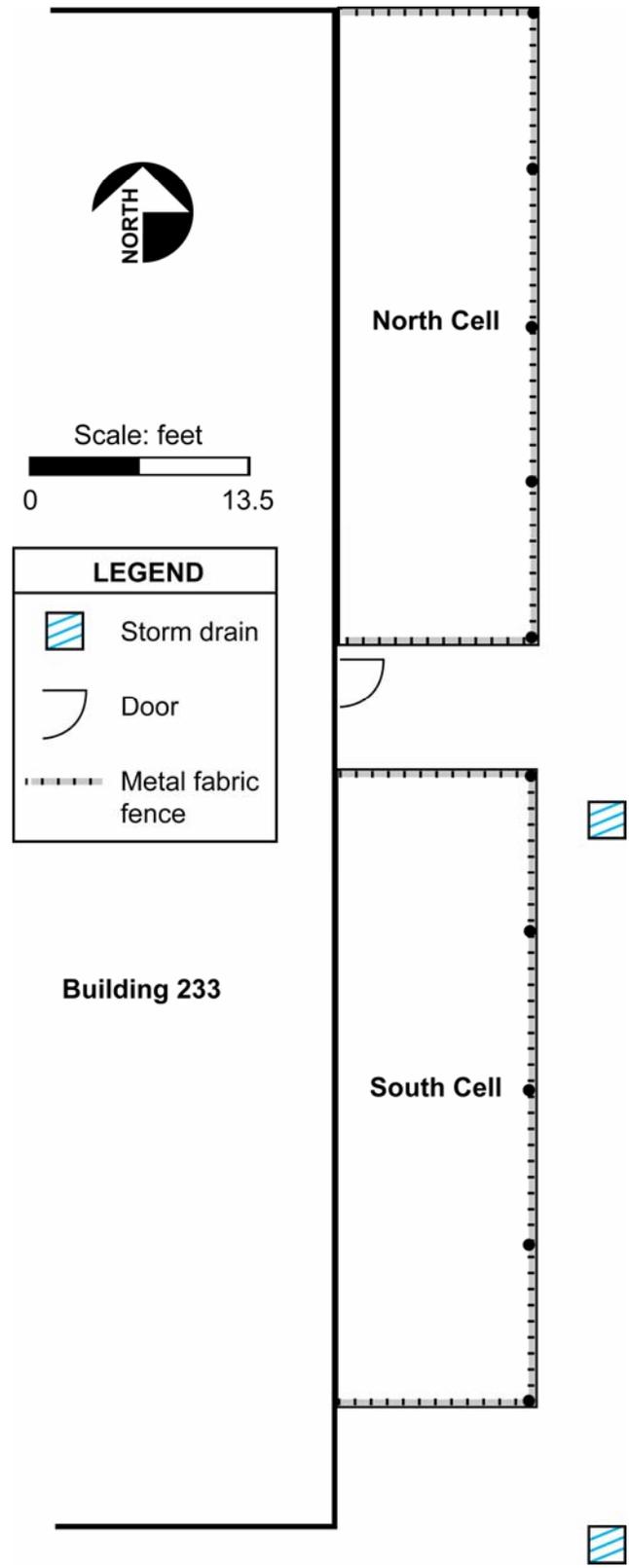


Figure 2. Building 233 Floor Plan.

### **What is RCRA?**

**The Resource Conservation and Recovery Act (RCRA) was passed by Congress in 1976. RCRA established initial directives and guidelines for U.S. EPA to regulate and manage solid waste, including hazardous waste. DTSC is authorized to implement RCRA in California.**

### **What is RCRA Interim Status?**

**When RCRA was passed, the operators of hazardous waste facilities were given interim status until the new RCRA permitting requirements could be implemented. LLNL opted to close the B-233 CSU before the Laboratory's initial RCRA permit was issued; hence the unit is undergoing interim status closure.**

## **Past Closure History**

Three Phases of partial closure work have been completed at the B-233 CSU.

### ***Phase I***

A Phase I work plan was prepared and implemented by LLNL as a project scoping exercise to determine what if any contamination existed at the CSU. Phase I work plan results indicated the presence of heavy metals above the site background. Radiation sampling was also completed during Phase I which indicated that radiation levels at the B-233 CSU were consistent with established background levels.

### ***Phase 2***

A follow-up Phase II work plan was prepared in an effort to further characterize contamination identified during Phase I sampling. This work included collecting paint and concrete chip samples to identify sources of elevated levels of lead, zinc and barium. The paint applied to the CSU walls and floor was confirmed as the source of the metals present. Additional soil sampling was also conducted.

### ***Phase 3***

A final Phase III work plan was prepared in an effort to remove pesticide residues identified in Phase I of the work plan. The work performed involved decontaminating (pressure washing) the unit and then sampling the rinsate and collecting confirmation swipe samples.

## **Closure Plan Implementation**

LLNL has completed the physical work needed to close the B-233 CSU. After the Draft Closure Plan is approved, LLNL will submit a closure certification report. The closure certification report is subject to review and approval by DTSC.

### ***Closure Performance Objective***

LLNL plans to clean close the B-233 CSU. The premise of clean closure is that all hazardous waste has been cleaned up or removed to levels suitable for unrestricted re-use so that further regulation or monitoring under RCRA is no longer required.

LLNL has demonstrated clean closure of the B-233 CSU by showing that the levels of contaminants remaining, above the site background, are below conservative screening levels published by the California EPA and Region 9 of the U.S. EPA. In all cases, the land use scenario considered for the site has been residential. This is very conservative given the research-focused nature of LLNL.

## **Regulatory Compliance**

In addition to complying with the requirements of RCRA, DTSC must consider the California Environmental Quality Act (CEQA). DTSC has determined the project is exempt from the requirements of the California Environmental Quality Act and a Notice of Exemption has been drafted.

Based on LLNL demonstrating that the remaining contaminants at the B-233 CSU fall below conservative residential screening levels, DTSC concludes that the Closure Plan will not have a significant detrimental effect on human health or the environment.

## What's next?

After the formal public comment period ends (on December 10, 2007), DTSC will formally respond to all comments received. DTSC will then either approve the draft Closure Plan as proposed or with additional conditions. DTSC will prepare a Notice of Final Decision that will be mailed to all parties that participated in the public comment process.

## Additional Sources of Information

### *DTSC Project Staff*

For questions regarding the draft Closure Plan, please contact Mr. Ryan Batty, the DTSC Project Manager located at 8800 Cal Center Drive, Sacramento, CA 95826. Ryan can be contacted on (916) 255-6699 or at [RBatty@dtsc.ca.gov](mailto:RBatty@dtsc.ca.gov).

For question regarding the public participation process please contact Mr. Jesus Cruz, Public Participation Specialist located at 8800 Cal Center Drive, Sacramento CA, 95826. Jesus can be contacted on (916) 255-3315 or at [JCruz@dtsc.ca.gov](mailto:JCruz@dtsc.ca.gov).

For media questions, please contact Ms. Angela Blanchette, DTSC Public Information Officer, located at 700 Heinz Avenue, Berkeley, CA 94710. Angela can be contacted on (510) 540-3732 or at [ABlanchette@dtsc.ca.gov](mailto:ABlanchette@dtsc.ca.gov).

### *Information Repositories*

DTSC has put together a set of pertinent project documents (known as the administrative record) for the public to review. Copies of the administrative record can be found at the following information repositories:

### **DTSC Cal Center Office**

8800 Cal Center Drive  
Sacramento, Ca 95826  
Call (916) 255-3758 for an appointment.

### **Civic Center Library**

1188 South Livermore Avenue  
Livermore, CA 94550  
Call (925) 373-5500 for hours of operation.

### **DTSC Berkeley Office**

700 Heinz Ave, Suite 200  
Berkeley, CA 94710  
Call (510) 540-2122 for an appointment.

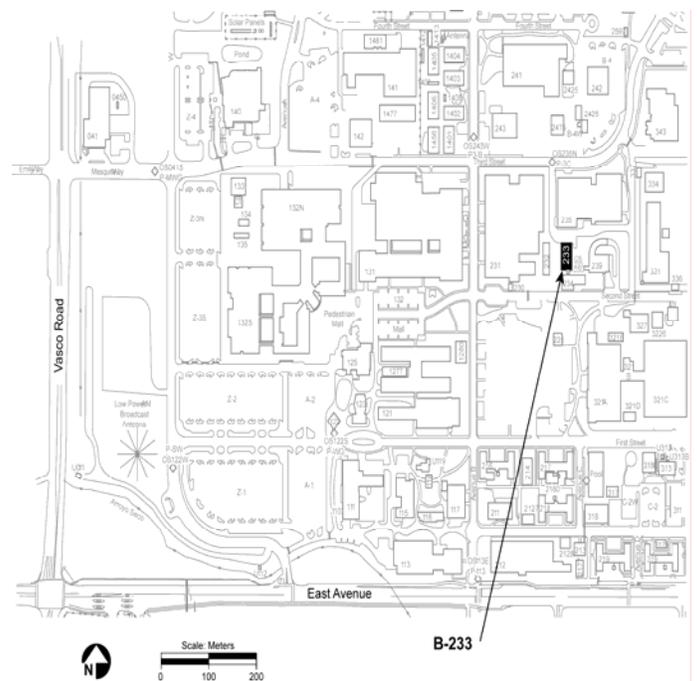
All of the documents contained in the administrative record are also available on the DTSC website at the following link:

[www.dtsc.ca.gov/HazardousWaste/Projects/LLNL.cfm](http://www.dtsc.ca.gov/HazardousWaste/Projects/LLNL.cfm)

### **Notice to Hearing Impaired Individuals**

TDD users can obtain information about the site by using the California State Relay Service (888) 877-5378. To reach the Public Participation Specialist call 1 (866) 495-5651.

### **Project Location Map**



**Figure 3. LLNL Site South West Corner Map.**