

The Boeing Company

ETEC Closure Contract
DE-AC03-99SF21530

Annual ISMS Report Calendar Year 2011

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1.0 Introduction

The Boeing Santa Susana Field Laboratory (SSFL) is located in the Simi Valley Hills of southeastern Ventura County, California, adjacent to the Los Angeles County line and approximately 29 miles northwest of downtown Los Angeles. The SSFL site supported nuclear research and energy development activities for the Department of Energy (DOE) and its predecessor agencies. Those activities took place in SSFL Area IV, the westernmost 290-acres of the 2,849-acre site, and used both DOE and Boeing facilities. The DOE facilities are located primarily in a 90-acre area generally known as the Energy Technology Engineering Center (ETEC).

DOE Contract DE-AC03-99SF21530 requires that Boeing SSFL have a site-wide safety program that is appropriate and reasonable as intended by DOE G450.4-1B, Vol. 1 and 2. DOE G450.4-1B, the "Integrated Safety Management System (ISMS) Guide", which provides guidance for the implementation of an integrated safety management system into management and work practices at all levels of the organization. It is based on seven key guiding principles and five core functions.

The ETEC Closure program meets those guiding principles and core functions by utilizing the Boeing Enterprise-wide Environment, Health and Safety Procedures, Business Process Instructions, and Guides, SSFL site programs and specific ETEC Closure program documents. The details of this implementation are provided in the Boeing document "ETEC Closure Contract Integrated Safety Management System Description" (ISMSD), EID-04694.

In May 2007, the U.S. District Court of Northern California ruled that DOE's decision to conduct cleanup and closure on the basis of the ETEC Environmental Assessment (DOE/EA-1345) did not meet the requirements of the National Environmental Policy Act (NEPA). In compliance with the judge's ruling, DOE initiated steps for preparing the SSFL Area IV Environmental Impact Statement (EIS) and to stop decontamination and demolition efforts until completion of the EIS process.

Although DOE has discontinued decontamination and demolition of the remaining facilities, it has continued to contract with Boeing SSFL to conduct surveillance, maintenance, monitoring and investigation activities, including investigation of soil and groundwater, as required by the State of California Department of Toxic Substances Control (DTSC).

While DOE's cessation of decontamination and demolition efforts has reduced the number of work-hours required for DOE related activities, Boeing SSFL continued to provide environmental, health and safety support as necessary in accordance with the regulatory and contractual elements stated above. This annual report provides a summary of the ETEC Closure program Integrated Safety Management System status and accomplishments for calendar year (CY) 2011.

2.0 Integrated Safety Management System Overview

Boeing Procedures for Environment, Health & Safety (EHS) flow down from Boeing Policy POL-4, which establishes Boeing's commitment to provide employees with a safe and healthful workplace. Boeing Procedures, Business Process Instructions, and Guides, and SSFL programs in turn flow down to the ETEC Closure Program Management Plan (PMP), PMP-00001, and the contract-specific Health and Safety Plan (HASP), EPA-00060.

The PMP defines safety as the first priority for this program. It specifies adherence to the HASP for ETEC Closure activities, requires a HASP and an Injury and Illness Prevention Plan (IIPP) from each subcontractor performing work on the site, and requires a Process Hazards Analysis (PHA), EID-06146, for each major operation or facility handling hazardous materials or performing hazardous operations. The PMP references the "Integrated Safety Management System

Description” (ISMSD) for the comprehensive safety approach utilized to ensure work is performed in a manner that protects the workers, the public, and the environment. The ISMSD includes a crosswalk between Boeing documents and the DOE core functions and guiding principles. An ETEC Closure ISMS Self-Assessment Plan (SAP), DI-004, provides a method for assuring that the requirements of the ISMS Description are met and documented.

The following provides a brief overview of Boeing SSFL safety responsibilities outlined by these Boeing documents as they apply to the ETEC Closure operations:

Management: Management personnel (functional and business organizations) are responsible and held accountable for workplace safety and environmental protection. Their responsibilities include ensuring employee training, compliance with permit and record keeping requirements, compliance with solid and hazardous waste management requirements, maintenance of safe working conditions, reporting injuries, illnesses, and hazardous substance releases, and ensuring that operations are subjected to appropriate safety reviews by responsible organizations.

Persons-in-Charge: The Person-in-Charge (PIC) is responsible for overseeing activities at a specific facility or field activity. The PIC coordinates with appropriate Environment, Health and Safety (EHS) personnel to ensure compliance. The PIC conducts pre-entry briefings into controlled areas and site familiarization training, controls access and egress to controlled areas, records significant events, implements approved procedures, maintains restoration activity files, and monitors implementation of procedures and use of personal protective equipment.

Individual Employees: Each employee is responsible for performing his or her duties safely and in accordance with Boeing and contract requirements. This includes job performance in accordance with training received and compliance with specific requirements associated with environmental protection and personnel safety. Employees must report incidents (hazardous substance releases, injuries, property damage, and near misses) and unsafe work conditions and activities to management. Every Boeing employee has the authority and responsibility to stop or suspend until safe, any operation that may pose a risk of injury or property damage.

Boeing SSFL Environment, Health and Safety (EHS): EHS provides regulatory assistance, coordination, and oversight for the ETEC Closure program. This includes support and training to both management and staff to assure a safe and healthful workplace, to minimize adverse impacts on the public and the environment, and to comply with applicable laws, standards, and regulations governing the environment, safety and health. EHS also provides leadership in the development and implementation of programs to improve safety, health, and environmental risks and requirements that might affect the ETEC Closure program.

3.0 Safety Awareness Procedures and Practices

The ETEC Closure program has implemented procedures, programs, and practices as part of its Integrated Safety Management System to maintain safety awareness and safety performance among its employees and subcontractors. These procedures, programs, and practices include general audits and inspections, subcontractor safety management system review and field oversight, and periodic self-assessment. A summary of these is provided below.

General Site and Operation-Specific Activities: Safety oversight and awareness are continuous processes, implemented with regular feedback from management, PICs, and EHS. Some of the specific activities include the following:

- Job-specific training

- Enterprise-wide Boeing Behavior-Based Safety (BBS) Program
- Incident and near-miss reporting
- Project EHS Impact Evaluation Process
- Documented procedures for demolition projects
- Review of ETEC safety metrics

Daily Activities:

The PIC, along with Cognizant EHS Representative(s), maintains safe daily operations by:

- Controlling access to ETEC facilities and buildings
- Monitoring field activities
- Ensuring the availability of appropriate PPE
- Ensuring that personnel entering restricted areas receive proper training and wear assigned dosimeters
- Ensuring that personnel new to the site attend EHS Orientation training
- Coordinating provision of fire permits
- Ensuring operational status of utility infrastructure
- Identifying and correcting any unsafe conditions or activities

Periodic Activities:

Additional activities performed throughout the year include:

- Weekly facility inspections
- Weekly and monthly DOE flow-down communications, including DOE-wide ORPS reports, Lessons Learned, and Operating Experience Summaries
- Monthly SSFL EHS Council meetings, which include representation for ETEC activities
- Monthly ISMS Self-Assessment Program audits
- Monthly safety metrics, including quarterly CAIRS entries
- Quarterly contamination surveys at the Radioactive Materials Handling Facility (RMHF) and at Building 4024
- Quarterly radiation surveys at the RMHF and Building 4024
- Quarterly All-Hands meetings, which include DOE program status reports
- Quarterly Contractor Safety Forum meetings

Subcontractor Awareness and Oversight: ETEC Closure Program ISMS procedures include the formal tracking of subcontractor documents in the Project Impact Evaluation System to ensure that each subcontractor has practices in place for the safe conduct of their operations. These documents are retained in the contractor's field office or work area and audited for compliance. Subcontractor activities are also subject to the health and safety requirements of the Boeing SSFL Service Provider Manual and, if applicable, the Demolition Subcontractor General Requirements (ETEC PB 08-009) flysheet. As noted above, subcontractor field operations are monitored by designated PICs.

Annual Activities: The ETEC Closure Program ISMS is assessed on an annual basis to determine its effectiveness and identify where process improvements can be made.

4.0 ISMS Accomplishments for 2011

Performance on Closure Tasks: Program activities included completion of the following major performance tasks:

- Continuation of surficial media investigations of Area IV

- Continuation of Chatsworth formation groundwater monitoring and investigation program
- Support for EPA Area IV Radiological Survey
- Maintenance of all DOE facilities in a safe-shutdown mode

ISMS Self-Assessment: ISMS self-assessments were made monthly and are summarized in this annual self-assessment review. Lessons-learned from SSFL and DOE complex-wide activities are presented regularly to ETEC personnel, and open channels of communication are maintained to address any potential safety concerns.

Facility Safety Audits: Monthly facility audits performed by Health, Safety and Radiation Services demonstrated that the facility was being maintained in a safe condition and that observed work was performed safely.

2011 ISMS Declaration: At the direction of the DOE Office of Environmental Management Headquarters, an Integrated Safety Management System Declaration was prepared by the DOE ETEC Project Office and submitted in February of 2011. An ISMS Effectiveness Review was conducted in November 2011. The draft final report identified two Deficiencies and one Area for Improvement in Quality Assurance. These will be evaluated with DOE to determine the most appropriate responses.

Boeing SSFL Safety Record for 2011: Boeing SSFL safety information is presented in Sections 5.0 through 7.0.

5.0 Occurrence Reporting and Processing System (ORPS)

No incidents occurred at Boeing SSFL requiring an ORPS report in 2011.

6.0 OSHA Recordable Injuries

The Boeing ETEC site did not experience an OSHA Recordable Case in 2011.

7.0 Safety Audit Analysis

7.1 Self-Assessment Audits

Monthly self-assessment audits were performed on schedule and no systemic weaknesses in the safety management system or performance in the field were identified. Only two safety issues were identified during the self-assessment audits. A Baker tank was not appropriately labeled with a confined space. The low priority hazard at B/4024 was rectified immediately as the Baker tank vendor was notified of the error and placed confined space signs at the correct locations. The other safety issue was a medium priority hazard also located at B/4024. One of the two Baker tanks located at that facility had an incomplete guardrail system at the top of the tank. The vendor was immediately notified and corrected the issue by removing access to the top of the tank and placing appropriate warning signs.

7.2 Behavior-Based Safety Audits

No behavior based safety observation reports were submitted by SSFL management for Area IV during CY-2011.

7.3 ETEC Injury Analysis

A detailed Injury Analysis was not performed for ETEC in 2011 since no injuries occurred. Refer to section 6.0.

8.0 ISMS Improvements

The following ETEC documents were reviewed and updated in 2011:

- Process Hazard Analysis (PHA) for RMHF Operations, EID-04446
- ETEC Closure Training Plan, EID-04450
- ETEC Closure Contract Integrated Safety Management System Description, EID-04694
- RMHF Familiarization Document, EID-06144
- Health & Safety Plan for DE-AC03-99SF21530, EPA-00060
- 10 CFR 851 Compliance Plan, EPA-00062
- Nevada Test Site Implementation Crosswalk (NIC), NIC-00001
- Demolition Subcontractor General Requirements, PB 08-009
- Quality Assurance Program Plan for DOE Site Closure Program, QA-00001
- Occurrence Reporting, QA-00003
- Quality Implementation Plan (QIP) for the DOE Site Closure Program, QA-00008

9.0 Conclusion

Boeing SSFL management diligently monitors personnel safety and seeks opportunities for process improvements to ensure safety performance. Enhancements in worker health and safety practices are incorporated into the ETEC Closure Integrated Safety Management System Description document. Regular review of EHS, ETEC and, ISMS procedures, along with monthly evaluation of ETEC Closure Site Assessment Plan reports as part of the monthly ISMS reports demonstrates ETEC's commitment to provide a safe workplace. ETEC Closure Contract Integrated Safety Management System Description requirements meet the DOE guiding principles and core functions for safe work practices. Its implementation continues to be successful in maintaining a safe work environment. The 2011 Effectiveness Review identified no Significant Deficiencies, two Deficiencies (QA) and one Area for Improvement (QA). No other findings were identified. These observations will be reviewed with DOE to identify the most appropriate responses.

Acronyms

BBS	Behavior-Based Safety
CY	Calendar year
DOE	Department of Energy
EHS	Environment, Health and Safety
EIS	Environmental Impact Statement
ETEC	Energy Technology Engineering Center
HASP	Health and Safety Plan
IIPP	Injury and Illness Prevention Plan
ISMS	Integrated Safety Management System
ORPS	Occurrence Reporting and Processing System
OSHA	Occupational Safety & Health Administration
PHA	Process Hazards Analysis
PMP	Program Management Plan
RMHF	Radioactive Materials Handling Facility
SAP	Self-Assessment Plan
SSFL	Santa Susana Field Laboratory