

**U.S. Department of Energy  
Office of Environmental Management  
Energy Technology Engineering Center (ETEC)**

**FEDERAL INTEGRATED SAFETY MANAGEMENT SYSTEM  
DESCRIPTION**

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## **Federal Integrated Safety Management System Description (ISMSD)**

### **1.0 PURPOSE & SCOPE**

This document is intended to describe the ETEC Field Office Federal Integrated Safety Management System Description (ISMSD) as required in DOE O 450.2, "Integrated Safety Management," consistent with the EM HQ ISMSD.

This document applies to all DOE ETEC Project federal employees and DOE service support Contractor(s). Further, the principles and expectations described herein are carried forth and reflected in the project ISMS developed by the Contractor(s) to describe their implementation of the associated requirements.

### **2.0 OVERVIEW OF THE ISMS**

In 1947, North American Aviation (NAA) bought the first parcel of what today is the 2,847 acre SSFL. The remote property was purchased as a test laboratory for rocket engines, facilities to support the development of nuclear energy, and a DOE center of excellence for research involving liquid metals. The Santa Susana Field Laboratory (SSFL) is comprised of four discrete operational areas with two adjacent undeveloped properties. ETEC is located within the DOE leased Area IV of the SSFL owned by The Boeing Company.

The U.S. Department of Energy (DOE) committed to institute an Integrated Safety Management System (ISMS) throughout the DOE complex in DOE Safety Management System Policy (P) 450.4A. This commitment is incorporated into DOE Acquisition Regulations (DEAR) 48 CFR 970.5204-2 and 5223-1 and DOE site operations contracts requiring Contractor(s) to manage and perform work in accordance with documented ISMS processes.

At the Energy Technology Engineering Center (ETEC) site, guidance and expectations for ISMS implementation have been provided to CDM and Boeing Company, by the DOE-ETEC. This has resulted in development of the ETEC Integrated Safety Management System Description.

Both the Federal ISMS and the Contractor(s) ISMS (that the ETEC Field Office oversees) are designed to ensure the Project functions safely as it embarks on the more tasks involved in the Project. The ETEC project is composed of the nineteen cold and dark facilities and the associated land. The ETEC Contractor(s) activities consist of characterization and clean-up of soil and groundwater and maintenance, demolition, and removal of the facilities. The Contractor(s) ISMS that governs work on site, and protects the work force and public, is geared to the performance of this scope of work. The emphasis of the Federal ISMSD is oversight of the Contractor(s) ISMS, its component parts, and its field implementation. Accordingly, the vast majority of the responsibility for meeting the requirements of this ISMSD rests with the ETEC Field Office, consisting of both DOE staff and DOE-support Contractor(s). An ETEC Mission and Function Statement was developed to tailor the needs of the project with the modest resources of the federal staff and supplemented with support service contracted individuals and staff from the Environmental Management Consolidated Business Center. A DOE ETEC Oversight Schedule was developed in order to apply a

graded oversight approach to assuring that environmental, safety, health and quality programs are fully implemented by the Contractor(s).

To supplement its oversight, the ETEC Field Office will also rely upon a range of Performance Indicators. Much of this data will be provided by the Contractor(s), with DOE verifying its accuracy and reliability.

### 3.0 MANAGEMENT EXPECTATIONS

The ETEC Field Office's expectations of the Federal ISMSD are that it will help ensure that (1) each site employee will leave the workplace uninjured at the end of the day, (2) that each employee will retire from the Project or go to work somewhere else with their health unimpaired as a result of their employment here, (3) there will be no on-site adverse consequences to Boeing personnel from Project work, and (4) there will be no off-site adverse consequences resulting from Project work.

Safety is a core value of the ETEC Field Office. The ability to perform a job safely within ETEC Project will not be compromised by production, budget, or schedule priorities. If a job cannot be performed safely, it will not be performed. ETEC Federal and Contractor(s) employees will not accept shortcuts which circumvent safety or yield less than quality results.

The safety culture at ETEC Field Office shall be founded on the following principles:

- There is an environment where each employee instinctively feels responsible for personal safety and the safety of others
- Leaders set the example and demonstrate a commitment to safety
- Decisions will be made with safety in mind
- There is an inquisitive attitude and behavior towards challenging assumptions and considering potential adverse consequences of planned actions
- A disciplined work control system is essential to ensuring all hazards are identified and addressed before work begins
- Organizational learning is embraced
- There is open examination of operations and soliciting of feedback from internal and external sources
- There is an environment that fosters and encourages an open exchange of ideas and differing opinions without the fear of retaliation
- All employees are responsible for maintaining the ETEC Project safety culture and are empowered to improve that culture

To achieve these ends, ETEC Field Office staff expects each DOE or Contractor(s) employee of the Project, as well as each DOE or DOE Contractor(s) visitor, to do their part as described in this Federal ISMSD.

Contractor(s) management, staff, and employees are expected to at all times perform work in accordance with their ISMSD.

#### 4.0 REQUIREMENTS

- 10 CFR 830, Nuclear Safety Management
- 10 CFR 835, Occupational Radiation Protection
- 10 CFR 850, Chronic Beryllium Disease Prevention Program
- 10 CFR 851, Worker Safety and Health Program
- 29 CFR 1910, OSHA Standards for General Industry
- 29 CFR 1926, OSHA Standards for the Construction Industry
- DOE O 151.1C, Comprehensive Emergency Management System
- DOE O 210.2A, DOE Corporate Operating Experience Program
- DOE O 226.1B, Implementation of Department of Energy Oversight
- DOE O 231.1B, Chg 1, Environment, Safety and Health Reporting
- DOE O 232.2, Occurrence Reporting and Processing of Operations Information
- DOE O 414.1D, Quality Assurance
- DOE O 420.1C, Facility Safety
- DOE O 436.1, Departmental Sustainability
- DOE O 440.1B, Worker Protection Management for DOE Federal Employees
- DOE O 450.2, Integrated Safety Management
- DOE P 450.4A, Integrated Safety Management Policy
- DOE O 451.1B, Chg 3, National Environmental Policy Act Compliance Program
- DOE O 460.1C, Packaging and Transportation Safety
- DOE M 460.2-1A Radioactive Material Transportation Practices Manual

The listing above is not complete but rather contains the guidance most likely to be invoked day-to-day on site.

#### 5.0 ROLES AND RESPONSIBILITIES

The roles and responsibilities for the ETEC Field Office staff (both federal and support Contractor(s)) is defined in the ETEC Mission and Function Statement. The purpose is to clearly delineate, for each position, the basic requirements and responsibilities needed to carry out the ETEC vision and mission.

## 6.0 IMPLEMENTATION OF ISM

ETEC Field Office safety objectives are to maintain a safe workplace that (1) operates in accordance with mandatory and other agreed upon standards, (2) maintains employee injuries and reportable events to a minimum, preferably below established performance objectives, and (3) minimizes risky employee behavior.

To accomplish these safety objectives, the site Contractor(s) develop an ISM system, incorporating the ISM's Guiding Principles and Core Functions. The Contractor(s) system is described in the Contractor(s)'s ISMSD. ETEC Field Office involvement, primarily in the form of oversight, informal and formal, routine and as needed, is designed to ensure the effectiveness of the Contractor(s)'s ISM system.

The ETEC Field Office system for oversight is detailed in the approved oversight procedures. The ETEC Federal staff performs day-to-day safety oversight of Contractor(s) activities. In addition to safety functions performed by the ETEC Federal staff, there are support service contracted individuals to support safety, health and other technical support areas to ensure safe operations at the ETEC facility.

The ETEC Federal staff, with the support of the ETEC Federal Project Director (FPD), ensures the performance of safety and health-related assessments and surveillances, encompassing the range of S&H disciplines of importance to the site. Certain assessments and surveillances are performed in accordance with a schedule, and others are performed as needed on the basis of site activities or in response to initiatives from outside the site. Among the assessments performed is the ISM annual review.

ETEC Field Office staff will ensure oversight is conducted in all areas of Project ISMS. The chief emphasis of the ISMS oversight will be the implementation of safety protocols by operators in the field, technical and administrative programmatic reviews relative to DOE expectations, and adequacy of Contractor(s) performance assurance; i.e., their integrated assessment program.

The ETEC FPD receives data from the Contractor(s) describing their safety and health performance. The ETEC federal staff will review this performance.

ETEC Field Office Management Systems that support the Federal ISMSD are defined in Attachment A. The procedures and plans referenced in Attachment A are both ETEC Field Office specific procedures and EMCBC procedures applicable to the functional areas identified in support of the ETEC Field Office. The procedures and plans listed encompass those processes for ISMS implementation at the ETEC site.

## 7.0 ETEC FIELD OFFICE ISMS DESCRIPTION

The elements of ETEC Field Office System are described below, showing how the program addresses the Guiding Principles, Safety Culture Elements and Core Functions of ISM, and how Quality Assurance (QA), the Environmental Management System (EMS), and Integrated Safeguards and Security Management (ISSM) are integrated with the ISMS.

### Implementation of ISM Guiding Principles & Safety Culture Elements

*Line Management Responsibility for Safety:* The ETEC FPD is the line manager responsible for safety of all ETEC activities.

*Clear Roles and Responsibilities:* In general, these are described in the Mission and Function Statement. Technical responsibilities are assigned as job duties and expectations as communicated by the ETEC FPD. As situations dictate, specifics may change to ensure success of the overall program. The ETEC FPD is ultimately responsible for ensuring that expectations are met.

*Competence Commensurate with Responsibilities:* Federal staff members are qualified in accordance with their responsibilities.

*Balanced Priorities:* Environmental, safety, health and quality performance expectations are contained within contract-related documents.

*Identification of Safety Standards and Requirements:* Routine oversight of work planning and performance ensures the Contractor(s) uses proper standards and requirements.

*Hazard Controls Tailored to Work Being Performed:* Routine oversight of work planning and performance ensures the Contractor(s) imposes adequate hazard controls for the work.

*Operations Authorization:* Routine federal safety oversight of work planning and performance ensures the Contractor(s) complies with its own requirements for work authorization and that their work is approved before it is performed; i.e., hazard screens, work permits.

*Individual Attitude and Responsibility for Safety:* The federal staff will comply with the Contractor(s) safety and health procedures when in site work areas. Federal staff will call dangerous conditions to the attention of Contractor(s) supervisors and ensure immediate, appropriate action.

*Operational Excellence:* One of the goals of federal oversight is the generation of recommendations that increase the layers of defense of Contractor(s) workplace safety controls to promote operational excellence.

*Oversight of Performance Assurance:* Periodic reviews, assessments, surveillances, and verifications are conducted and used as the basis for evaluating performance assurance programs.

*Organizational Learning for Performance Improvement:* Federal staff members ensure that observations of safety conditions for the ETEC Project lead to lessons learned being reflected in the Contractor(s) program.

### Implementation of the Five Core Functions

The first four Core Functions (Define the Scope of Work, Analyze the Hazards, Develop and Implement Hazard Controls, and Perform Work within Controls) are ensured by the performance of routine ETEC Field Office oversight; i.e., attendance at pre-job briefings, the review of Contractor(s) work planning documents, permits, and sampling results, and observation of work performance.

The fifth Core Function (Provide Feedback and Continuous Improvement) is ensured through the same activities as the first four Core Functions and, in addition, through the ETEC staff involvement in the Contractor(s) Incident/Event and Occurrence Reporting process, ETEC FPD involvement/oversight of Contractor(s) processes, and in the course of establishment, monitoring, and review of safety performance indicators.

Observations of safety performance will be transmitted to ETEC Contractor(s). Issues will be formally logged and tracked to resolution in accordance with DOE ETEC and Contractor(s) procedures.

### Integration of Quality Assurance (QA) , Environmental Management System (EMS), and Emergency Management (EM), with Integrated Safety Management System (ISMS)

The ETEC Field Office QA, Environmental Management, Emergency Management, and ISSM are all components of the Federal ISMS, and their implementation is thoroughly integrated at every level. Responsibility for implementation of these programs rests with the ETEC FPD. Each of the programs is subject to scheduled formal oversight as are the other site Safety and Health Programs. Contractor(s) performance in those areas will be monitored on an on-going basis by the ETEC federal staff through regular meetings with the ETEC Contractor(s).

### Communications and Education Plan

*Routine Communications and Education:* The ETEC FPD is responsible to insure that ETEC Field Office staff members are kept current on the current revision of ETEC Field Office procedures and ISMS by a combination of documented required reading and education performed at staff “All Hands” meetings.

*Technical Training and Education:* ETEC Field Office staff members with technical oversight responsibilities are offered a variety of training or education suitable to their technical responsibilities. All ETEC Field Office Federal employees are expected to complete the General Technical Base qualification.

Professional Certification: Achievement of Professional Certification, such as a Certified Industrial Hygienist (ABIH), Certified Safety Professional (BCSP), or Certified Health Physicist (ABHP), is encouraged. Staff members who have achieved Professional Certification will be assured of continuing education sufficient to maintain their certifications by the ETEC FPD, through the Individual Development Plan (IDP) for each individual, and as funding allows.

## 8.0 ANNUAL ISM MAINTENANCE AND CONTINUOUS IMPROVEMENT PROCESSES

The following routine ETEC Field Office actions will be performed to ensure implementation of the Federal ISMSD.

### ISMS Description Maintenance and Continuous Improvement:

This ISM will be reviewed and updated as needed and at least annually. Changes in the ISMSD will be made on the basis of external guidance or expectations, opportunities for improvement identified, and changes in work being performed.

### ISMS Annual Oversight, Self-Assessments, Annual Assessment, and Annual Declarations:

An Annual ISMS Assessment will typically be performed each fiscal year, after the Contractor(s)'s self-assessment and the issuance of their annual ISMS program revision, and before the ETEC Field Office ISMS Declaration to EM. This will typically be an independent verification led by an external reviewer, and staffed, in part, by external reviewers. Criteria Review and Approach Documents (CRADS) will be selected so as to ensure the evaluation of new ISMS elements or areas of special ETEC Field Office interest, that the most important elements of the ISMS are covered annually. The ETEC Field Office will enlist assistance from the Environmental Management Consolidated Business Center (EMCBC) to provide qualified external reviewers for this effort. However, DOE O 450.2 (c) (5) allows that Heads of DOE Field Elements may "determine whether and when to conduct ISM verifications of contractor ISM systems". Therefore, a safety assessment(s) of reduced scope may suffice to address this ISMS requirement.

EM issues an Annual ISMS Declaration for the fiscal year that must be completed by either the end of the fourth quarter of the fiscal year or by the end of the first quarter of the next fiscal year (i.e., December 31<sup>st</sup>), depending of EM's Declaration request. DOE ETEC (with assistance by the EMCBC) will prepare an ISMS Declaration based on information from the ETEC Contractor(s) ISMS Declarations and DOE ETEC's observed safety performance of both Federal and Contractor(s) activities.

### Annual Safety Performance Objectives, Measures, and Commitments Process:

See Attachment B to this document for details on this subject.

### ISMS Annual Effectiveness Review and Declaration Process

Upon receipt of the reminder for this review from EM-HQ, ETEC FPD will ensure this review is conducted, review results and recommended actions, and sign the annual declaration.

9.0 ATTACHMENTS

Attachment A: ETEC Field Office Management Systems Applicable to ISMS

Attachment B: Annual Update to Safety Performance Objectives, Measures, and Commitments (POMCs)

Attachment C: Summary of Implementation Actions

Attachment A  
ETEC Field Office Management Systems Applicable to ISMS

ETEC Site Specific Documents:

Mission and Function Statement  
Quality Assurance Program (QAP) Description  
Quality Assurance Program Implementation Plan (QIP)  
Program Oversight Schedule

EMCBC Supporting Documents:

Corporate Operating Experience/Lessons Learned  
Training and Qualification of Federal Employees  
Corrective Action Procedure  
Management Assessment Procedure  
Independent Assessment Procedure  
Stop Work Procedure  
Employee Concerns Program/Differing Professional Opinion  
Federal Employee Occupational Safety and Health Program (FEOSH)  
Facility Representative Program

## Attachment B

### Annual Update to Safety Performance Objectives, Measures, and Commitments (POMCs)

#### ETEC FIELD OFFICE ISMS POMCS FOR DOE EM

The ETEC Field Office establishes its ISMS Performance Expectations during the fourth quarter of the FY.

The subjects will be a combination of actions the ETEC Field Office can achieve itself, as well as selected indicators of Contractor(s) Environment, Safety and Health Program performance, for which the ETEC Field Office chooses to emphasize shared ownership with the Contractor(s). The range of Contractor(s) programs to be reflected in ETEC Field Office POMCs will be expanded to include Quality Assurance and Integrated Safeguards and Security. The level of performance expected will be based on the previous year's performance, and the anticipated work scope in the coming FY, and will be intended to promote and demonstrate improved overall site ISMS performance. Examples of indicators of purely DOE performance may include such subjects as the achievement of qualitative improvements in oversight, the completion of oversight relative to the established schedule, or improved technical qualification of staff.

The ETEC Field Office will track site performance relative to a range of lower threshold indicators which will be selected during the upcoming FY, based upon the work being performed by the ETEC Contractor(s).

#### CONTRACTOR(S) POMCS TO ETEC FIELD OFFICE

In the fourth quarter of each FY, the ETEC Field Office will formally direct the Contractor(s) to propose its POMCs for the coming FY, and acceptable Contractor(s) POMCs will be approved by the ETEC Federal Project Director. The indicators will be a mix of a minimum of five ESH&Q indicators of Contractor(s) program performance, which the ETEC Field Office accepts as comprising objective indicators of Contractor(s) ISMS performance. The level of performance expected will be based on DOE complex and industry performance and the anticipated work scope, and will be intended to promote and demonstrate improved overall site ISMS performance. Examples of Contractor(s) indicators will include injury numbers or rates, and number of ORPS events in certain critical categories. These indicators will include commitments relative to Quality Assurance and Safeguards and Security.

## Attachment C Summary of Implementation Actions

The following must be performed to ensure the Federal ISMSD is promptly implemented:

The ETEC FPD shall ensure that POMC measures demonstrate ETEC Field Office ISMS performance and monitor/trend the TRC & DART indices.

The ETEC FPD must insure that the Contractor(s) ISMS includes Quality Assurance and Integrated Safeguards and Security, in addition to the previous ES&H topics. These expanded indicators will be established as the Contractor(s) complete their respective ISMS according to contract.

The ETEC FPD needs to complete a listing of programs requiring oversight under its ISMS. The listing will serve as the basis both for prioritizing and ensuring that all or most programs contained would receive some sort of oversight within the established cycle.

The ETEC Field Office needs to ensure that in its oversight of Contractor(s) programs, assurance, and field performance explicitly identifies issues relating to the Contractor(s) ISMS. Staff performing oversight will be directed to identify ISMS issues on an ongoing basis, through formal and informal oversight.

The ETEC Field Office staff training will be accomplished per each employee's Individual Development Plan. Each employee's performance plan has mandatory safety elements as applicable and requires FEOSH annual training.