ES&H Core Policy

Brief

<table>
<thead>
<tr>
<th>Title</th>
<th>ES&amp;H Core Policy</th>
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<tbody>
<tr>
<td>Publication date</td>
<td>3/7/2017</td>
</tr>
<tr>
<td>Effective date</td>
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BRIEF

Policy Summary

The Environment, Safety & Health (ES&H) Core Policy requires all persons who work at or visit Berkeley Lab to perform all work safely with full regard to the well-being of workers, affiliates, the public, and the environment.

To achieve this, Berkeley Lab has adopted the guiding principles and core functions of the Integrated Safety Management System (ISMS) from Department of Energy (DOE) DEAR Clause 970.5204-2, and incorporated them into the UC-DOE Prime Contract, Contract Number DE-AC02-05CH11231 (Contract 31).

This wiki page presents:

- The Laboratory's ES&H Core Policy and philosophy
- An overview of roles and responsibilities of various stakeholders in the ISMS
- A summary of the Laboratory's Integrated Safety Management (ISM) principles and guidelines, which are fundamental to the Laboratory's ES&H programs
- An illustration of the relationship between this Requirements and Policies Manual (RPM), Contract 31, and the ES&H Manual (PUB-3 000) and its supporting work processes and procedures

Who Should Read This Policy

All persons who visit or work at Berkeley Lab

To Read the Full Policy, Go To:

The POLICY tab of this wiki page

To Read the ES&H Program Details, Go To:

- http://www.lbl.gov/ehs/pub3000/CH01/CH01.html
- https://commons.lbl.gov/display/rpm2/EHSS+Division+Charter

Contact Information

EHS Division
WHWells@lbl.gov

Policy

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POLICY

A. Purpose

This describes the Environment, Safety & Health (ES&H) Core Policy of Lawrence Berkeley National Laboratory.

To achieve this, Berkeley Lab has adopted the guiding principles and core functions of the Integrated Safety Management System (ISMS) from Department of Energy (DOE) DEAR Clause 970.5204-2, and incorporated them into the UC-DOE Prime Contract, Contract Number DE-AC02-05CH11231 (Contract 31).

B. To Whom This Applies

All persons who visit or work at Berkeley Lab

C. Exceptions

None

D. Policy

1. Berkeley Lab policy requires all work to be performed safely with full regard to the well-being of workers, affiliates, the public, and the environment.
   a. Keys to implementing this policy are the following core safety values:
      i. The institution demonstrates a strong commitment to safety by integrating safety into all facets of work.
      ii. Managers, supervisors, and work leads are actively involved and demonstrate leadership in performing work safely.
      iii. Individuals take ownership to work safely and continuously strive to improve.
      iv. Individuals demonstrate an awareness and concern for the safety of others and strive to prevent harm to other workers, the general public, and the environment.

2. Berkeley Lab has adopted the DOE Integrated Safety Management System (ISMS) approach for establishing ES&H policies and programs. This is a requirement in Contract 31, Clause I.86, DEAR 970.5223-1, Integration of Environment, Safety, and Health into Work Planning and Execution (Dec 2000).

3. Berkeley Lab’s overall ES&H philosophy is as follows:
   a. In the context of carrying out the Laboratory’s technical missions, ES&H policies and programs are the most important day-to-day consideration given the emphasis on doing good science.
   b. Accidents are preventable by each individual and responsible organization paying close attention to potential hazards and taking appropriate action.
   c. Responsible stewardship of environmental resources is an integral part of ES&H management, and results in the reduction of environmental impacts locally, regionally, and globally.
   d. The Laboratory recognizes that humans are fallible and that everyone makes errors. The most common causes of human error are weaknesses in the organization, not lack of skill or knowledge. When events occur, management’s first reaction should be to look within the organization rather than to blame an individual.
   e. Managers, supervisors, safety line managers, and work leads are responsible for ensuring that an adequate system is in place to carry out work safely while also being environmentally responsible. An identifiable line management chain is ultimately responsible for each work activity.
   f. Each supervisor and safety line manager is expected to ensure that all individuals reporting to him or her understand the ES&H expectations, governing work controls, and the means by which they can safely and successfully perform their assignments while providing stewardship of the environmental resources in their care.
   g. Each individual is directly responsible for ensuring his or her own safety and environmental stewardship, looking out for fellow workers, and promoting a safe, healthful, and environmentally sound workplace and community. Individuals may participate in setting policy, establishing coordinating processes, and assessing and improving activities. All individuals must
follow ES&H-related work instructions. If the work instructions cannot be followed safely or present a new hazard, the employee is responsible for notifying the appropriate individuals and assisting, as appropriate, in modifying the work instructions.

h. Employees, contractors, and affiliates are held accountable for their performance with respect to ES&H policies and principles.

4. The Laboratory’s Integrated Environment, Safety & Health Management Plan (PUB-3140) describes the institutional management system requirements for all operations associated with this ES&H Core Policy. The Laboratory's ES&H Manual (PUB-3000) describes detailed and technical work processes.

5. New – or changes to existing – ES&H policies or implementing programs and documents must comply with the Laboratory’s Requirements Management Policy (document number 04.04.001.000) and Document Management Policy (document number 10.06.001.000).

E. Roles and Responsibilities

The principal roles and responsibilities of the various stakeholders in the ISMS are listed in the table below. A complete list of stakeholders and their responsibilities is in the ES&H Manual, Chapter 1, Section 1.4.

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibility</th>
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| Laboratory Director                       | • Has ultimate responsibility for safety at the Laboratory, and for the establishment and administration of ES&H policies, including implementation of the Integrated Environment, Safety & Health Management Plan (PUB-3140)  
  • Ensures that ES&H policies meet the requirements of Contract 31 and the Laboratory ES&H Standards Set, and carries out the terms of Contract 31 between the University of California and DOE  
  • Delegates responsibility for ES&H policy making, implementation, and daily operation of ES&H programs to the Laboratory Deputy Director for Operations  
  • In his or her absence, delegates overall ES&H responsibility to senior management in the normal chain of command |
| Laboratory Deputy Director for Operations  | • Is responsible for ES&H policy making and implementation and the daily operation of ES&H programs  
  • Delegates to the Environment/Health/Safety (EHS) Division Director responsibilities for developing and publishing the Laboratory's ES&H policies, developing and operating effective service and support programs, and ensuring that Laboratory ES&H objectives and requirements are met  
  • Delegates to the EHS Division Director and his or her staff responsibility for stopping unsafe work activities in the absence of cognizant line management or work leads  
  • Manages requests for variances from DOE orders and regulations and appeals for denials of variances from Laboratory policy  
  • Provides oversight of the LBNL Employee Concerns Program |
| Division directors and heads of independent departments | • Ensure that the Laboratory’s ES&H policies are observed within their divisions  
  • Develop and implement Division ISMS implementation plans tailored to the work and to the hazards found in their divisions  
  • Ensure that their divisions provide sufficient resources for division ES&H efforts  
  • Ensure that clear roles and responsibilities for compliance with all applicable ES&H policies are defined within their divisions  
  • Ensure that their divisions’ research projects, work locations, and unique work activities are evaluated for potential hazards, and that safety controls are specified and implemented |
| Laboratory managers, supervisors, and work leads | • Protect their staff, other workers, the public, and the environment by ensuring a safe and healthful working environment that is free from undue hazards  
  • Integrate ES&H into all work activities  
  • Ensure that all people under their supervision are properly trained in safety and emergency procedures, ISMS concepts, and the five core ISM functions  
  • May delegate authority and assign responsibility for particular operations, activities, or areas to others, but must retain accountability for worker and workplace safety |
### All persons at the Laboratory
- Take ownership for safety by protecting themselves, other workers, the public, and the environment
- Adopt and practice ISM concepts and core functions by integrating ES&H into all work activities
- Actively communicate ES&H and ISM issues to promote continuous improvement

### EHS Division
- Protects workers, the public, and the environment by providing professional and technical expertise and follow-up services, and integrating ES&H policies into the Laboratory's research and support programs
- Supports and partners with line management by incorporating the protection of workers, the public, and the environment into the primary research and support functions of each division or unit
- Supports and provides expertise directly to each Laboratory worker who seeks ES&H advice and help, or who voices a concern

See document number 07.01.002.000, *EHS Charter*.

### Safety Advisory Committee (SAC)
- Makes recommendations to the EHS Division Director on the development and implementation of the ES&H Core Policy, guidelines, codes, and regulatory interpretation
- Performs research for and makes recommendations to the Laboratory Director on the development and implementation of ES&H policies, guidelines, codes, and regulatory interpretation
- Conducts reviews of special safety problems, and recommends possible solutions if requested by the Laboratory Director
- Reviews appeals concerning disagreements between a division and the EHS Division on the interpretation or application of criteria, rules, or procedures, and advises the Laboratory Deputy Director for Operations. Such advice and counsel may include options for a resolution.
- Is responsible for scheduling and conducting the portion of institutional self-assessment known as the ES&H Peer Review in cooperation with the Office of Contractor Assurance (OCA)

See the SAC Web site for the SAC Charter and other information about the SAC.

### Office of Contractor Assurance (OCA)
- Supports the SAC in planning and conducting ES&H Peer Reviews
- Manages the Division ES&H Self-Assessment Program
- Supports the EHS Division Director in ES&H Technical Assurance Program, Contract 31, and Appendix B self-assessments (see document number 04.03.001.000, *Quality Assurance Policy*; or RPM Section 8.01)
- Analyzes all self-assessment reports to improve the effectiveness of the technical and management aspects of Laboratory ES&H programs

See the OCA Web site for the OCA Charter and other information about the OCA.

### F. Definitions/Acronyms

<table>
<thead>
<tr>
<th>Terms</th>
<th>Definitions</th>
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<tbody>
<tr>
<td>Affiliates</td>
<td>Non-Laboratory employees engaged in on-site Laboratory activities. Affiliates are subject to training in safety and other subjects. They are also issued a Berkeley Lab identification badge. Affiliates may receive system accounts, research access to facilities, and a per diem allowance for housing and living expenses. Examples: facility users, scientific collaborators, students</td>
</tr>
<tr>
<td>Contract 31</td>
<td>U.S. Department of Energy Contract No. DE-AC02-05CH11231, also referred to as the UC-DOE Prime Contract or Contract 31. The Contract describes the terms for UC's management of Berkeley Lab. The Contract includes a statement of work (SOW) for the science missions, and details the requirements for managing the operations and business of Berkeley Lab.</td>
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<tr>
<td>EHS</td>
<td>Environment/Health/Safety Division</td>
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<tr>
<td>ES&amp;H</td>
<td>Environment, Safety &amp; Health (the subject matter associated with DOE programs)</td>
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<tr>
<td>ES&amp;H Peer Reviews</td>
<td>Periodic reviews designed to ensure management systems consistent with ISM are in place at all Laboratory divisions, and that these systems lead to the effective implementation of the Laboratory's ES&amp;H programs. Results are submitted to the division directors.</td>
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</tbody>
</table>
ISM | Integrated Safety Management
---|---
ISMS | Integrated Safety Management System
Matraced Employees | Persons from one division (the home division) who provide special technical expertise for another division (the host division)
Supervisor (HEERA) | Supervisory employees are defined by the Higher Education Employer-Employee Relations Act (HEERA) as "any individual, regardless of the job description or title, having authority in the interest of the employer to hire, transfer, suspend, lay off, recall, promote, discharge, assign, reward or discipline other employees, or responsibility to direct them, or to adjust their grievances, or to effectively recommend such action, if, in connection with the foregoing, the exercise of such authority is not of a merely routine or clerical nature, but requires the use of independent judgment. Employees whose duties are substantially similar to those of their subordinates shall not be considered to be supervisory employees."
Visitors | Individuals who are visiting the Laboratory for typically one week or less and are not engaged in Laboratory research or use of Laboratory facilities. Examples of visitors are meeting attendees or speakers, participants in scientific discussions, tour groups, and interviewees.
Work Lead | A work lead is anyone who directs, trains, and/or oversees the work and activities of one or more workers. Work leads provide instruction on working safely, and on the precautions necessary to use equipment and facilities safely and effectively. Work leads do not need to be line managers, HEERA-designated supervisors, or Laboratory employees.
Workers | Defined broadly to include anyone who performs work at or for the Laboratory. Individuals who work at the Laboratory, including but not limited to employees, affiliates, and contractors.

G. Recordkeeping Requirements
See the PUB-3000 for record-keeping requirements associated with an ES&H program's work processes.

H. Implementing Documents

<table>
<thead>
<tr>
<th>Document Number</th>
<th>Other Reference</th>
<th>Title</th>
<th>Type</th>
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<tr>
<td>07.01.001.001</td>
<td>PUB-3000, Ch. 1, Section 1.6</td>
<td>General Policy and Responsibilities, Required Work Processes</td>
<td>Work Process</td>
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<td>Waste Management</td>
<td>Program</td>
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<td>Radiation Safety</td>
<td>Program</td>
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<td>PUB-3435E</td>
<td>Biosafety Manual</td>
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<td>Safety Advisory Committee Charter</td>
<td>Charter</td>
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I. Related Berkeley Lab Policies
- Requirements Management Policy, 04.04.001.000
- Document Management Policy, 10.06.001.000
J. Contact Information

EHS Division
WHWells@lbl.gov

K. Revision History

<table>
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<tr>
<th>Date</th>
<th>Revision</th>
<th>By whom</th>
<th>Revision Description</th>
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<tr>
<td>1/2/2012</td>
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<td>W. Wells</td>
<td>Re-write for wiki</td>
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<td>8/31/2012</td>
<td>1.1</td>
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<td>2/20/2013</td>
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<td>M. Wisherop</td>
<td>Changed PUB-3000 Chapter 2 link to RPM EHSS Charter</td>
<td>BRIEF/To Read the ES&amp;H Program Details, Go To:</td>
<td>Editorial</td>
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<td>11/12/2014</td>
<td>1.3</td>
<td>W. Wells</td>
<td>Editorial changes; three-year review. References to EHS Division and ES&amp;H Manual revised for consistency.</td>
<td>Brief, Sections D.4, E, ISM System Overview tab, Contact Information</td>
<td>Minor</td>
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<td>3/7/2017</td>
<td>1.4</td>
<td>M. Stoufer</td>
<td>Update &quot;Associate Laboratory Director for Operations / Chief Operating Officer&quot; position title to &quot;Laboratory Deputy Director for Operations&quot;</td>
<td>All</td>
<td>Editorial</td>
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ISM System Overview

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INTEGRATED SAFETY MANAGEMENT SYSTEM OVERVIEW

Berkeley Lab has adopted the principles and functions of the Integrated Safety Management (ISM) system to assure that work is performed safely. All employees and visitors at Berkeley Lab are expected to exercise the ISM process whenever they plan or do work. The five ISM core functions are as follows:

- Define the scope of work
- Analyze the hazards
- Develop and implement hazard controls
- Perform work within controls
- Provide feedback for continuous improvement

The seven guiding principles of ISM are as follows:

- Line management responsibility for safety
Implementing the ISM Process

The seven guiding principles of ISM are achieved through implementing the five ISM core functions, which must become part of every aspect of work at Berkeley Lab.

1. Define the Scope of Work (Work Planning)

Missions are translated to work, expectations are set, tasks are identified and prioritized, and resources are allocated.

2. Analyze the Hazards

Hazards and risks associated with the work to be performed are identified, analyzed, and categorized as to impact on employees, public, and the environment. A formal hazard analysis is performed using a graded approach, and tailored to the work and workers. Each worker has an individual Job Hazards Analysis (JHA) for the tasks he or she will perform. Subcontractors use a similar process called the Subcontractor Job Hazards Analysis (sJHA) for nonconstruction work, or the Construction JHA for construction work.

EHS provides a number of special-purpose institutional data tracking systems in which hazards must be identified for analysis and communication (e.g., Activity Hazard Document (AHD), Chemical Management System (CMS), Laser Management System, RADAR). The Hazard Management System (HMS) is used to collect baseline hazard information for a work location, in part, to determine if higher-level hazard analysis and authorization is required. It also provides a hub to compile institutional hazard identification and tracking systems. For example, the Facilities Division planning data system, Maximo, references the HMS to identify location-based hazards when planning work.

3. Develop and Implement Controls

Controls are established based on identified applicable standards and requirements to reduce the risks to acceptable levels. Acceptable levels are determined by responsible line management or work leads, but are always in conformance with all applicable laws and the ES&H Standards Set included in Contract 31, and as described in the hazard-control programs developed in the ES&H Manual.

4. Perform Work within Controls

Activities are conducted in accordance with controls, procedures, requirements, and authorizations.

5. Feedback and Continuous Improvement

Information is gathered from employee suggestions, assessments, lessons learned, operational awareness, and worker/customer/regulator and stakeholder feedback, as appropriate, to improve the work activity.

Supervisors and work leads must regularly review work practices and operations in light of any new hazard information or changes in actual work practices. Occurrence reporting, self-assessment, peer reviews, and lessons learned can be used as ways of improving the cost-effectiveness and reliability of hazard controls (engineering and administrative). Based on findings from occurrence reporting and other assessments, improvements are made to work planning and, in rare instances, used as a basis for changing line management responsibility, roles and responsibilities, worker competence, or other appropriate parts of the work cycle.

To ensure continued effectiveness, periodic reviews of procedures and operations are conducted by each division, the EHS Division, and the...
Safety Advisory Committee (SAC). Each division conducts an annual self-assessment based on Office of Institutional Assurance guidelines and divisional areas of interest. The EHS Division assesses the effectiveness of divisions’ programs and processes on a triennial basis (more frequently if deemed necessary or if required by regulation). The SAC also conducts Peer Reviews on a triennial basis. Special assessments and peer reviews may also be conducted as needed under the coordination of the EHS Division Director.

Source Requirements Documents for ISM

- Contract 31, Clause I.86, DEAR 970.5223-1, Integration of Environment, Safety, and Health into Work Planning and Execution (DEC 2000)

Implementing Documents for ISM

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<td>PUB-3140</td>
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Contact Information

EHS Division
WHWells@lbl.gov

ES&H Document Hierarchy

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ES&H DOCUMENT HIERARCHY

Figure 1 below illustrates the document hierarchy of Laboratory ES&H documents relative to Contract 31 (and applicable federal, state, and local regulations) and the Laboratory Requirements and Policies Manual (RPM). The documents listed under “LBNL Driving Requirements” are mandated by the Contract; must be reviewed and approved by Laboratory management; and drive institutional policies, processes, or other documents. LBNL Driving Requirements documents do not include Laboratory policies, but are typically program or system descriptions. They are often titled a “plan” in accordance with the Contract or regulation requirement. The authority or authorities for each document category are also noted in Figure 1.

Laboratory documents that guide or are used by more than one function or department are considered “institutional.” Institutional documents are subject to document management and control practices as required by the Laboratory’s Document Management Policy (document number 10.06.001.000).

Links to the documents listed in Figure 1 are in the Implementing Documents table on the DOCUMENT INFORMATION tab of this wiki page.
This RPM wiki contains all the Laboratory’s ES&H policies, and is mapped to PUB-3000 programs and work processes. Figure 2, below, illustrates the relationship between the RPM and the PUB-3000.
Figure 2

Document Information

DOCUMENT INFORMATION

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<td>PUB-3000, Chapters 1 and 2</td>
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Source Requirements Documents

- Contract 31, I.86, DEAR 970.5223-1, *Integration of Environment, Safety, and Health into Work Planning and Execution (Dec 2000)*
- Contract 31, Appendix I, *Environment, Safety and Health Standards for LBNL*
- PUB-3140, *Integrated Environment, Safety & Health Management Plan*
Related Berkeley Lab Policies

- Requirements Management Policy, 04.04.001.000
- Document Management Policy, 10.06.001.000

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