Integrated Safety Management Plan

Information Technology Division

May 2021

Reviewed and Accepted By:	
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1.0 Purpose

The Integrated Safety Management (ISM) Plan is the document used to guide the implementation of integrated safety activities in all Information Technology Division efforts. The Laboratory's Environment Safety and Health (ES&H) policies and requirements are contained in the:

- [Lawrence Berkeley National Lab Institutional Integrated Safety Management Plan PUB 3140](#)
- [Requirements and Policies Manual (RPM)](#)
- [ES&H Manual (PUB-3000)](#)

This Integrated Safety Management Plan describes the mechanisms that are applied in the IT Division to ensure that safety policies are properly implemented. The IT Division will conduct all of its operations in a manner that protects the health and safety of its personnel/staff (including employees, affiliates, contractors, vendors, students and visitors), does not endanger the environment, and is consistent with all applicable LBNL, University, and government agency policies and regulations.

2.0 Description of IT Division

The Information Technology (IT) Division supports DOE's research mission by providing strategic IT support services to the Lab. These services include:
- Archives and Records
- Business Systems
- Computing Facilities
- Cyber Security
- Email, Collaboration, Video and Web Services
- Networking
- Scientific Computing
- Passwords and User Accounts
- Mobile and Telephony
- Workstation Support

Work locations include:
- 46 - IT Support Services, Collaboration Services
- 50 - Research Services
- 50B - Directorate, Collaboration Services, Cyber Security, HPC
- 50E - Telephone Services, Infrastructure Services, Business Systems
- 54 - Research Services
- 69 - Business Systems, Archives and Records
- Home office locations: both remote and telework
- Field Support and Scientific Computing in support of customer divisions may take place at locations throughout the Lab and at offsite Facilities including:
  - Customer office spaces and technical areas
  - Telephone closets and network nodes
  - Communications manholes and vaults

Technical Areas in the 50 Complex include:
- 50A-0155 Battery Room
- 50A-2109 Colocation Data Center
- 50A-1156 Node 1
- 50B-1245 Computer Room
- 50B-1275 Data Center
- 50B-2275 Computer Room

3.0 ES&H Roles and Responsibilities

The IT Division Director is responsible for ensuring that the Division complies with all Laboratory policies and procedures. In order to accomplish this, the IT Division Director relies on line management and Division personnel to perform tasks outlined below.

3.1 Line Management

Department Heads, Group Leaders and Work Leads (if designated by Group Leaders):

a. Are accountable to the IT Division Director for assuring that all activities of Division personnel are carried out in a safe manner and in accordance with all Laboratory ES&H requirements.
b. Must consult with qualified specialists, including IT's Safety Coordinator, the Environmental Health & Safety Division (EHS) Liaison and EHS Subject Matter Expert (SME) staff, to resolve any Environment, Safety & Health (ES&H) questions regarding IT activities.
c. Ensure that staff are assigned to the appropriate Work Planning and Control (WPC) Activities, have accepted the conditions of the Activities, and have completed required safety training.
d. Proactively promote and encourage safety awareness in the workplace.
e. Are responsible for conducting annual walk arounds to discuss and address safety concerns with direct reports, and to inspect workspaces and address deficiencies.
f. Are responsible for Subcontractor Job Hazard Analysis (SJHA) Work Authorizations for subcontractors performing non-construction hands-on work at Berkeley Lab.

3.2 Division Personnel

All employees, affiliates, and contractors should:

a. Know and follow the ES&H requirements that apply to their work and contribute to the IT Division's ES&H activities as appropriate. This includes accepting conditions of work Activities to which they have been assigned, and keeping current with required training.

b. Know Berkeley Lab's "[Stop Work Policy](#)". All Berkeley Lab employees, affiliates and contractors are responsible for stopping work activities considered to be an imminent danger.
c. Contact their supervisor and/or Division Safety Coordinator to report any safety concerns and work related accidents or injuries. In particular, employees should report any ergonomic issues such as musculoskeletal discomfort.

3.3 Division Safety Coordinator

The Division Safety Coordinator is responsible for administering the Division's ISM program. The Division Safety Coordinator:

a. Chairs the IT Safety Committee
b. Serves as a member of the LBNL Safety Advisory Committee
c. Serves as a point of contact for all Division staff regarding the implementation and interpretation of ES&H policies, procedures and programs.
d. Helps develop and implement Division-specific safety training, if needed.
e. Promotes a safety culture where everyone takes responsibility for their own safety and looks out for the safety of others.
f. Serves as a member of the Safety Coordinators' Committee, and represents the Division at Safety Coordinators' meetings.
g. Coordinates and manages required Divisional safety documentation.
h. Along with Division Management, helps promote a safety culture where everyone takes responsibility for their own safety and looks out for the safety of others.
i. Coordinates with Supervisors, Managers, Work Leads, Activity Leads, and Area Safety Leads to assure that Technical Area hazards are identified and reflected in the entrance placards, and that IT personnel working in Technical Areas comply with the controls listed on the entrance placards.
j. Supports Division Management in assuring that all work hazards are addressed in Work Activities and staff are assigned to the appropriate Work Activities.
k. Along with Line Management, helps ensure that IT meets all LBNL ES&H requirements.

3.4 Technical Area Contact Person

The Technical Area Contact Person for each Technical Area listed in section 2.0 serves as an area safety leader. The technical area contact person must have sufficient knowledge of hazards and controls associated with each technical area to communicate those hazards to workers. The Technical Area Contact Person for each area is appointed by the Infrastructure Services Department Head. The IT Technical Area Contact Person coordinates work with subcontractors and Facilities staff. IT has assigned Technical Area contact persons for its computer rooms.

3.5 EH&S Division Liaison

The Environment Health and Safety Division (EH&S) Division Liaison is an EH&S employee who serves as the designated point of contact for IT on all ES&H issues. The EH&S Division Liaison:

a. Requests that the appropriate EH&S technical support be provided to implement and interpret Lab ES&H policies.
b. Assists in hazard identification and the development of controls appropriate to the hazard and work being performed.
c. Provides consultation on EH&S issues, requests the appropriate support, and assists with coordinating EH&S subject matter experts when needed.
d. Participates in incident reviews of illnesses, injuries, accidents, and other safety and environmental incidents, and assists with coordinating EH&S subject matter experts when needed.
e. Participates in the IT safety self-assessments as requested.
f. Supports, as requested, the elements of the IT Division ES&H program. Examples include:
     i. The IT ISM Plan updates
     ii. Training and WPC record management
     iii. Walk around inspections and reports
     iv. The IT Division self-assessment

4.0 IT Division Safety Committee

The IT Division maintains a Safety Committee that meets as needed, but at least semiannually. It is chaired by the Division Safety Coordinator and comprises one representative from each department, the Division Safety Coordinator, the Division Safety Advisory Committee Representative, the EH&S Division Liaison, and the EH&S Health and Safety Representative. The committee's activities include:
- Review, maintenance, and implementation of the Division's ISM plan
- Work with IT Division Management to participate in the preparation of division self-assessment reports
- Receive updates of recent division accidents and discuss possible trends
- Dissemination of relevant lessons learned
- Promote ES&H awareness and training
- Advise division management on ES&H issues

5.0 Work Authorizations and Training

Employees, subcontractors, vendors and affiliates cannot work on site or telecommute without proper authorization and training. This is accomplished through the following:

5.1 Work Planning and Control

Work Authorization for employees, affiliates, and contractors. The [Work Planning and Control](#) (WPC) program is designed to assure that:

- All hazards are analyzed and controlled
- All workers demonstrate that they are qualified to perform activities
- All work is authorized
- All authorizations (job hazard analysis, activity hazard documents, biological use authorizations, radiological work authorization) are combined in a single program

WPC is implemented through [Activity Manager](#), a software tool that allows Activity Leads to create work Activities, assign workers to those Activities, and authorize workers to perform work.

Since most of the IT Division personnel work in an office environment, heavy computer use has been identified as the primary hazard. WPC Work Activities for office ergonomics address this hazard. In addition, Work Activities have been defined for the following areas:

- IT Archives and Research
- IT Networking and Data Centers
- IT User Support

Work Activity Leads may delegate authority to add workers to an Activity. For example, IT Data Center Work (1156, 1275) includes workers from several different IT Departments, who may have been added to the work Activity by the Activity Lead, by their own Group Lead, or by the Data Center Manager. In addition, workers from outside the IT Division may be added to an Activity if they have business need to perform work in an area covered by the Activity. Activity Leads review work groups periodically, depending on the hazard level, to ensure hazards and controls are still appropriate.

5.2 Working Alone Policy

IT follows the Lab's [Working Alone Policy](#) which restricts work in cases where a plausible failure of hazard controls could result in an injury or exposure that would render an individual unable to take appropriate emergency action. Examples:

- An individual may be splashed with a corrosive chemical that blinds him or her (volume used and concentration, etc., should be considered).
- An individual may be exposed to a chemical or trauma that impairs consciousness.
- An individual may be set on fire.
- An individual may receive severe electrical shock or arc-flash injury.
- An individual may fall from an elevation above 6 feet.
- An individual may be struck or trapped by a heavy object or suspended load.
- An individual may become trapped in or by moving machinery.
- An individual may be injured by a powered cutting tool.

Any situation where working alone would be prohibited is addressed in the work Activity. In some instances working alone would be covered by specific

authorization permits such as confined space entry or lockout/tagout permits. In some instances the work Activity Lead may define controls to keep workers safe, where the hazard of the work does not rise to the level of a formal permit authorization.

5.3 Subcontractor Job Hazard Analysis and Work Authorization (SJHA)

IT Division Subcontractors who perform non-construction, hands-on work must be covered by an SJHA. Activities such as computer programming, deliveries & pickups, and office & administrative duties do not qualify as hands-on work.

5.4 Specific Authorizations/Permits

Certain IT activities in the IT Computer Facilities Group sometimes require specific authorizations/permits for:

5.4.1 Confined Space Entry

Employees must be trained to enter communication manholes and must follow the process for entry into confined space. The [Confined Space Program](#) describes requirements and includes the required permit application form.

5.4.2 Lockout/Tagout (LOTO) and Energized Electrical Work Permit

If an IT contractor or subcontractor will be performing electrical work on site, either a LOTO Permit or an Energized Electrical Work Permit (depending on the scope of their work) is required. [The Electrical Safety web site](#) includes the required permit application form.

5.5 Training

The Berkeley Lab Training [database](#) lists all training required for employees together with dates taken and expiration dates. Safety training must be completed before an employee is authorized to perform activities covered by the training. Until safety training is complete, employee work must be performed under the supervision of an authorized individual. An employee can check the status of their training in the database, and a supervisor can access the status of training for their direct reports.

6.0 Offsite Work

6.1 Working at UC Berkeley Campus

If IT employees conduct Lab-sponsored work on the UCB campus (exclusive of Donner and Calvin Laboratories) they must follow the ES&H policies and procedures within the partnership [Agreement Between UCB and LBNL Concerning Environment, Health and Safety Policy and Procedures](#).

6.2 Telecommuting

Telecommuting is a work option in which employees fulfill job responsibilities at an approved off-site location. Home ergonomic evaluations are performed virtually as needed for or requested by staff. Telecommuting arrangements must comply with the Lab's Flexible Work Options Policy.

7.0 Performance Monitoring and Feedback

7.1 Self-Assessment Process

The Division reviews essential safety processes and procedures, submitting self-assessment reports to Lab Management.

7.2 Division Walk Around Inspection Process & Schedule

Line management is responsible for conducting walk arounds to discuss and address safety concerns with direct reports, and to inspect workspaces and address deficiencies, with the expectation that every employee and IT Division workspace will be reviewed at least once every year. Walk around forms will be tracked by the Division Safety Coordinator to ensure all staff are reviewed at least once a year. The Division Safety Coordinator, along with line management and administrative support, will update any actionable items found during the walk arounds by logging work orders, ergo evaluations or corrective actions entered in the Corrective Action Tracking System (CATS) database, see 7.4 below, as necessary.

7.3 Injury Response and Review

The IT Division will conduct accident reviews, with participation of the Division Safety Coordinator, the ES&H Liaison, line management and the staff member involved in the accident, for OSHA recordable injuries and significant accidents. Lessons learned and other information are communicated to the Safety Committee, line management, and Division personnel as appropriate. Injury and illness statistics and related information are accessible through the access-controlled CHESS database maintained by EH&S.

7.4 CATS Tracking of Deficiencies

Items rising to the level of needing further review beyond a simple work request or that cannot be fixed on the spot will be tracked either in the ergonomic database, when relating to ergonomic issues to specific employees, or in CATS for longer term or institutional type projects.

8.0 Emergency Preparedness

IT staff will actively participate in annual drills conducted at the Laboratory to be prepared in case of building evacuation. Employees can volunteer to participate in building emergency teams for their location.

Emergency/earthquake preparedness backpacks are provided throughout the buildings for use as needed. Periodic updates will refresh contents that may expire.

9.0 Reporting Employee Concerns

A variety of communication methods exist at Berkeley which enable division employees to report environmental safety and health concerns and safety suggestions. Employees may discuss a concern directly with their Division Director, Department Head, immediate supervisor, principal investigator or division safety coordinator, as well as seek assistance from the EH&S Liaison, safety concerns hotline at x5514, submitting an EHS Safety Concerns request, or by emailing safetyconcerns@lbl.gov. Persons reporting hazards or improper activities are fully protected by the law and Lab policy against retaliation.

The available reporting mechanisms include:

IT Safety Coordinator	Sarah McGinn; SLMcGinn@lbl.gov; (510) 384-7247
IT EH&S Liaison[1]	Melanie Alexandre; MMAlexandre@lbl.gov; x6840
IT EH&S Health and Safety Representative	Jonathan Cabrera; JBCabrera@lbl.gov x5343
LBNL EHS Website	https://ehs.lbl.gov/
EHS Safety Concerns askUS Form	EHS Safety Concerns form - enters issue into askUS
EHS Safety Concerns (Division Office)	x7223 (SAFE)
UC Confidential Whistleblower Hotline (24-hour)	1-800-403-4744
UC Whistleblower Website	https://secure.ethicspoint.com/domain/media/en/gui/23531/index.html

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[1] EH&S contacts are subject to change. The latest EH&S Liaison and EH&S Health and Safety Representative can be found here.

Appendix - A

Seven Guiding ES&H Principles:

1. Line Management Responsibility for ES&H
2. Clear Roles and Responsibilities
3. Competence Commensurate with Responsibilities
4. Balanced Priorities
5. Identification of ES&H Standards and Requirements
6. Controls Tailored to Work Being Performed
7. Operations Authorization

Five Core ES&H Functions:

1. Work Planning
2. Hazard and Impact Analysis
3. Establishment of Controls
4. Work Performance
5. Feedback and Improvement

Appendix - B

Revision Log

Date	Revision Type	Description of Revision
September 9, 2008	Major	- Section 4: Redefined line management to include Work Leads in addition to Department Heads, Group Leaders and other supervisors. - Section 4.1: Added line management are responsible for quarterly walk arounds - Section 4.2: Updating of division personnel responsibilities - Section 5: Modified Division Safety Committee meeting frequency and added responsibility to review work and list of JHA work groups - Section 7: Modified Scope of work authorized to include the 6 IT workgroups and review responsibilities and schedule for work and JHA work groups - Section 8: Modified Qualifications and Training to address Lab ergonomics program changes - Section 9: Updated DSC resource allocation
September 17, 2008	Minor	Section 2: Added Document Control Section
2009	Major	- Document control moved from Section 2 and Appendix-B to the Title Page and Appendix C - Description of IT Division moved from Section 3 to Section 2 - Responsibility and Accountability moved from Section 4 to Section 3 - IT Division Safety Committee moved from Section 5 to Section 4 - Work Group Descriptions moved from Section 7 to 5.1 - Qualification and Training from Section 8 to 5 - Title Page: Deputy Division Director and Safety Committee Chair changed to Rosemary Lowden and title changed to "Safety Manager". - Table of Contents added - Section 2: Description of IT Division services was expanded. - Section 3:Expanded descriptions of ES&H Roles, Responsibilities and Accountabilities within the Division. Added descriptions for Division Safety Manager, Area Safety Leader, Division Safety Coordinator and EH&S Division Liaison. - Section 4: IT Division Safety Committee: Added a description of committee activities. - Section 5: Added "Work Authorization and Training" section.

		- Section 5.1: Modified Work Group Descriptions (previously listed in Section 7). - Section 5.2: Expanded information on "Job Hazard Analysis (JHA)" (info was previously in Section 8). - Section 5.3: Added "Subcontractor Job Hazard Analysis and Work Authorization (SJHAWA)" section. - Section 5.4: Added "Hazard Management System (HMS)"section. - Section 5.5: Added "Specific Authorization/Permits" section. New information below this section includes "Confined Space", "LockOut/TagOut (LOTO) and Energized Electrical Work Permit" and "Activity Hazard Document (AHD)" - Section 5.6: Added "Training" section. - Section 6: Added "Offsite Work" section. - Section 6.1: Added "Working at UC Berkeley Campus" section. - Section 6.2: Added "Telecommuting" section. - Section 7: Added "Performance Monitoring and Feedback" section. - Section 7.1: Self-assessment process: Added in the requirement to review all division safety processes and procedures annually. - Section 7.2: Added "Division Walk Around Inspection Process & Schedule" section. - Section 7.3: Added "Injury, Illness and Mishap Investigation and Reporting" section. - Section 7.4: Added "CATS Tracking of Deficiencies" section. - Section 8: Added "Emergency Preparedness" section. - Section 9: Added "Reporting Employee Concerns" section. Removed "Balanced Resources" Section to match Division ISM Implement Plan Review Checklist. - Appendix B: Added "IT Division ES&H Self-Assessment Measures". - Appendix C: Added IT ES&H Self-Assessment Measures to ISM Plan.
2010	Minor	- Appendix B:Removed *"IT Division ES&H Self-Assessment Measures"* and renamed. - Appendix C: Now Appendix B - Section 3.3: Noted change of "Safety Manager" - Section 7.1: Modified Self-Assessment process to reflect changes to reporting. - Section 9: Updated contacts
2011	Major	Section 3.1: Added SJHAWA to Line Management roles and responsibilities

			● Section 4: Modified Safety Committee activities ● Section 5.4: Slight modification to wording of ownership of 50B1275 ● Section 6.2: Revised Telecommuting section
2012	Major		● Section 3.3 & 3.4: Adjusted for no longer having a Safety Supervisor and assigned Safety Coordinator to report to Division Deputy. ● Section 7.2: Annual walk around (vs. quarterly) with an online review of safety concerns. ● Section 7.2: Removed IT Safety Manager ● Section 9: Updated EH&S Liaison to Rob Connelly
2014	Major		● Section 3.1: Line management will conduct semi-annual walk arounds. This is with the intent that informal walk arounds happen outside of the prescribed formal ones that should occur at least annually. Also incorporate review of Activities and Hazards with the new Work Planning and Controls (WPC) program. ● Section 4: IT Safety Committee will meet semi-annually rather than "at least quarterly" ● Section 5.1: Start to incorporate WPC to replace JHA
2017	Major		● Updated references to "JHA" with "WPC" and Activity Manager. Described WPC and Activity Manager. ● Updated broken links and minor program name changes. ● Section 3: Line management will conduct annual walkarounds ● Section 5: Added Working Alone Policy ● Section 9: Updated names and contact info for Safety Coordinator and EHS Liaison
May 4, 2021	Minor		● Updated broken links and minor program name changes/language throughout. ● Standardized formatting ● Section 2: added "home office" to work locations list ● Section 6.2: Add virtual ergo evaluations for remote/teleworkers ● Section 7.2: Removed frequency for safety walkarounds due to pandemic ● Section 9: Updated names and contact info for Safety Coordinator and EHS Liaison

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