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# Joint BioEnergy Institute Environment, Safety & Health (ES&H)

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**Joint BioEnergy Institute**  
**Environment, Safety & Health (ES&H)**

**Introduction**

This document provides a unified framework for the management of the environment, safety, and health (ES&H) function for Joint BioEnergy Institute (JBEI) operations to be located in the East Bay Area. The following matrix delineates the ES&H roles and responsibilities for each listed functional area. For purposes of clarification, the *JBEI Safety Program* refers to the Lawrence Berkeley National Laboratory (LBNL) managed entity under the direction of the JBEI Chief Operating Officer. Staff members working at JBEI are primarily under the employ of Lawrence Berkeley National Laboratory (LBNL), and as such line management responsibility for ES&H rests with the host (JBEI) supervisor. In those cases where a staff member is conducting work at JBEI as a visitor or participating guest from Lawrence Livermore National Laboratory (LLNL), Sandia National Laboratory (SNL), University of California, Berkeley (UCB), University of California, Davis (UCD), or Carnegie Institution at Stanford, the home institution (i.e., LLNL, SNL, UCD, UCB, Carnegie Institution at Stanford) assumes the ES&H responsibilities for the specific work activities of the guest / visitor as noted in the corresponding column in the matrix below.

**Joint BioEnergy Institute ES&H Responsibility Matrix**

ES&H Functional Area	LBNL Program Area / Reference	JBEI Safety Program	Host (JBEI) Supervisor	Home Institution	Employee
1. Hazard Identification and Analysis	LBNL PUB-3000, <a href="#">Ch. 32</a> (Job Hazard Analysis), <a href="#">Ch. 1.4.2</a> .	LBNL Hazard Management System database (HMS) and related processes will be used to identify hazards. Every JBEI worker will have a current individual baseline Job Hazard Analysis (JHA) and task-based JHA (as needed).	Ensure all hazards are identified accurately and entered into HMS in a timely fashion. Complete JHAs for all workers, and confirm all relevant tasks and associated safety measures are adequately described.	Ensure HMS and JHA processes have been completed. Verify as necessary.	Provide information to complete JHAs accurately. Operate in accordance with prescribed safe work practices. Report unsafe conditions and practices to host supervisor immediately.
2. Safe Work Authorizations	LBNL PUB-3000, <a href="#">Ch. 6</a> (Safe Work Authorizations)	LBNL system for line management, formal (e.g., biological use, radiological use, laser), and facility-based authorizations will be used. Specific JBEI authorizations can be considered as a means to supplement authorization and JHA processes.	Ensure for all pertinent authorizations that, assigned staff is listed on authorizations, staff is trained prior to engaging in work, and work is performed in accordance with specified provisions in these documents.	Ensure all appropriate authorizations are in place and current. Verify as necessary.	Follow all listed provisions, including obtaining necessary training, in the authorizations for relevant work.

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3. Worker Safety and Health Program	LBNL <a href="#">PUB-3851</a> , Worker Safety and Health Program (WS&HP)	Utilize the LBNL WS&HP) to provide a framework for a comprehensive program to reduce injuries, illnesses, and enhance safety performance at the JBEI facility. Educate JBEI staff on implementation strategies. Communicate with respective home institution ES&H point-of-contact regarding issues of concern; develop written findings report, as necessary.	Conduct periodic safety walkarounds, and participate, as appropriate, in other safety audits / inspections. Assure safety corrective actions are addressed.	Be aware of WS&HP implementation issues and findings. Participate, as necessary, in the resolution of identified issues.	Cooperate in the resolution of safety deficiencies. Provide operational information to aid in this effort, as requested.

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4. EH&S Training	LBNL PUB-3000, <a href="#">Ch. 24</a> (EH&S Training)	Utilize LBNL Job Hazards Questionnaire (JHQ) system for identification and tracking of training. Augment with JBEI-specific ES&H course curriculum. Track ES&H course completion using JHQ reporting mechanism.	Monitor ES&H training completion for staff. Review JHQs for accuracy. Assist employees in meeting training completion obligations. Perform On-the-Job (OJT) for work conducted at JBEI.	Ensure all required training is completed in a timely manner.	Complete identified training, and apply skills and knowledge obtained when performing work.
5. Environmental Protection	Environmental Management System ( <a href="#">EMS</a> ) Plan, <a href="#">2005</a> .	Provide technical expertise to facilitate appropriate implementation of EMS at JBEI. Assure local jurisdiction requirements in this area are met, and appropriate operating permits are in place. Educate JBEI staff in relevant environmental protection provisions and controls.	Ensure operations are conducted in accordance with environmental procedures / protocols.	Verify as necessary.	Conduct operations in accordance with environmental procedures / protocols.

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6. Hazardous Waste	LBNL, Hazardous Waste Generator Guidelines, <a href="#">PUB-3092</a>	Provide technical expertise to assist JBEI staff in managing hazardous waste Satellite Accumulation Areas (SAAs). Oversee Waste Accumulation Area (WAA) for facility, and coordinate processing and shipment of waste from WAA.	Ensure operations are conducted in accordance with hazardous waste generator guidelines.	Verify as necessary.	Conduct operations in accordance with hazardous waste generator guidelines.
7. Emergency Preparedness	<a href="#">LBNL Master Emergency Plan</a>	Establish a facility-specific Emergency Action Plan (EAP) with input from local jurisdictions and home institutions.	Carry out responsibilities as delineated in EAP.	Verify emergency procedures are being followed as necessary.	Carry out responsibilities as delineated in EAP.

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8. Incident Investigations & Reporting	LBNL, PUB-3000, <a href="#">Ch. 5.1</a> (Incident Reviewing and Reporting)	Use LBNL Incident Reviewing and Reporting process in PUB-3000. As necessary, coordinate with LBNL Office of Contract Assurance for DOE Occurrence Reporting.	Complete Supervisor Accident Analysis Report (SAAR) form in the time specified. Participate in incident investigations to determine a root cause when staff member is involved. Implement corrective actions to prevent future recurrence.	Coordinate with JBEI supervisor in completion of SAAR, and implementation of corrective actions. Verify satisfactory completion of these activities as necessary.	Provide input during incident investigation. Adhere to corrective actions specified as part of process. Update JBEI supervisor of changes to medical condition, and seek follow-up medical treatment, as necessary.
9. Design, Construction, and Facilities Management	LBNL, PUB-3000, <a href="#">Ch. 10</a> (Construction Safety)	Provide input on design for construction / renovation activities to ensure adherence with LBNL ES&H specifications. Coordinate LBNL construction safety and construction health inspection and monitoring services. Assess safety training status of contractors.	Ensure contractors initiating activities in work area are apprised of hazards present, and appropriate safety reviews have taken place.	Coordinate with JBEI supervisor on contractor safety, as necessary.	Shut down operations, if necessary, in order to mitigate hazards prior to work proceeding.

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10. Corrective Actions (Issues Management Program)	LBNL-5519, <a href="#">Issues Management Program</a> and <a href="#">Lesson Learned and Best Practices Program</a>	Monitor status of CATS system for JBEI operations. Generate reports for management on corrective action completion rates. Provide technical expertise and professional-level assistance to staff in the identification and implementation of corrective action solutions. Coordinate education of JBEI staff with the LBNL CATS system. Recommend next steps based on safety-related lesson learned items.	Ensure corrective actions are entered into LBNL Corrective Action Tracking (CATS) system. Ensure items are closed-out in accordance with timeline noted in CATS. Inform line management, and relevant home institution promptly concerning delays or change orders with respect to corrective actions. Circulate lessons learned.	Verify implementation and completion of corrective actions, as necessary.	Assist in the identification and implementation of appropriate corrective actions.

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11. ES&H Program Assessment	LBNL PUB-5344, <a href="#">ES&amp;H Self-Assessment Program</a>	Participate in self-assessment audits, including those related to line management self-assessment reviews, technical assurance audits, and management of ES&H reviews. Develop facility schedule for internal self-assessment activities and walk around safety reviews. Establish mechanism with LBNL Office of Contract Assurance (OCA) for reporting. Manage facility-level corrective actions to completion stemming from self-assessments.	Participate in self-assessment activities. Conduct periodic safety walkarounds, and enter any findings into LBNL CATS system for tracking. Ensure corrective actions are satisfactorily implemented within the established time line.	Verify corrective actions are completed, as necessary.	Participate as requested.

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12. Subcontractor Safety	LBNL Guide for On-Site Subcontractor Safety Plans, 4/23/07 (see attached)	Review and approve subcontractor (vendor) safety plan for JBEI operations. Establish tracking mechanism for these plans. Provide subcontractor oversight, as necessary.	<p>Authorize subcontractor (vendor) activities to proceed.</p> <p>Consult with JBEI Safety Program to address any issues of concern associated with subcontractor operations.</p> <p>Communicate with home institution, as necessary, regarding subcontractor activities. Ensure subcontractors are aware of hazards present in work areas, and appropriate safety measures are in place.</p>	Verify work of subcontractor (vendor) as necessary.	Ensure operations are shut down if necessary, and hazards mitigated prior to subcontractor (vendor) initiating work.