

FY08 ES&H Division Self-Assessment Validation Report: Earth Sciences Division

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This validation was performed to provide feedback on the comprehensiveness of the Earth Sciences Division (ESD) self-assessment process and to identify opportunities for improvement and noteworthy practices in this process. FY08 is the second self-assessment year since transitioning from the previously employed, criteria-focused model of assessment to a more comprehensive approach. Therefore, feedback on the assessment process and quality is provided for continuous improvement purposes.

ESD has a well-established self-assessment process that involves multiple levels of management inspecting workspaces. The assessment occurs during the course of the year, and management and the Division Safety Coordinator meet routinely to evaluate performance against the Division Integrated Safety Management Plan and the FY08 Division Self-Assessment performance measures.

The report, which serves as a roll-up of these activities, is comprehensive, thorough, and consequential. The report clearly reflects that performance is assessed against the Division ISM Plan requirements and the institutional performance measures. Opportunities for improvement, goals, and noteworthy practices are clearly identified, which provides great utility in communicating issues to division management and providing direction for future ESD ISM program activities. The report includes several excellent examples of robust and thorough assessment, such as noting that the Job Hazard Analysis (JHA) is not fully understood and not all Lab-space Lead Principal Investigators (LLPIs) are consistently documenting walkthroughs. Finally, the report describes progress in addressing each of the FY07 self-assessment findings and process improvements.

The self-assessment process appears to be mature and effective; and the report demonstrates that issues are identified, documented, and resolved. The validation identified no opportunities to improve the division's self-assessment process or report. In fact, the ESD Self-Assessment report and the evaluation that produced it provide a model for all division self-assessment reports.

The validation noted several ISM improvement opportunities that ESD identified through the self-assessment process and validation. These findings and process improvements are listed in Attachment 1. Divisional findings should be tracked to resolution in CATS. Divisional opportunities for improvement will not appear in the FY08 LBNL ES&H Self-Assessment Report. Rather, they will be analyzed collectively with those from other divisions in an effort to identify institutional issues.

The validation also noted several noteworthy practices employed by the Earth Sciences Division. These are listed in Attachment 2.

Attachment 1: Opportunities for Improvement

Divisional Findings

- Some items that require CATS entry are entered into the Work Request Center database in lieu of CATS.
- Some LLPI's walkthroughs were not documented upon completion. The ESD ISM Rev.8, requires that the record will be collected by the safety coordinator at the end of the fiscal year to be included in the annual self assessment documentation.
- One waste item was stored in excess of the ESD has 6 month limit on waste storage in an SAA.
- First Aid SAAR corrective actions were not entered into CATS. The First Aid SAAR corrective actions will be evaluated, discussed with line management and entered into CATS as appropriate.

Institutional Findings

- The Division ISM Plan does not include a listing of Work Leads, as required in PUB-3000 section 1.3.2.5. The wording in PUB-3000 should be clarified.

Divisional Process Improvement

- Ensure that all new ESD supervisors understand the JHA and they ensure that the JHA is updated when the work scope changes. In addition, some employees are uncertain about the JHA process and resulting training profiles.
- More creative conservation techniques and measures are necessary to invigorate the Working Green Initiative.
- Ensure that all ESD guests working onsite have the appropriate, documented on the job training (OJT) to conduct their work safely. This ESD OJT is the informal training provided by the LLPIs to staff working with specific equipment or procedures and it is under LLPI management control. The OJT is commonly practiced at different ESD labs but it is not usually formally documented.
- Work with the ESH division to develop task-based JHA for ESD off site field work.

- Implement the Subcontractors JHA program that was initiated by ESD on 10/31/08 and incorporate any pre-existing equipment service contracts.
- Continue educating the staff on the ISM requirements as they are updated to meet institutional changes.
- The safety coordinator and other ESD staff members, as appropriate, should be trained as Ergo advocates when the training is offered.
- The safety coordinator should closely monitor the ergo evaluations that are open for more than 6 months and meet with the employee and the supervisor to access the pending issues.
- All ESD employees who telecommute should use EHS059 to evaluate their work station.
- All students producing hazardous waste need to be trained to maintain complete log of the hazardous constituents they generate.
- More attention was given to communicating with SAA custodians during the quarterly SAA inspections, with positive results and improvement in the SAA compliance rate.
- Near miss database and formal communication is developed to track and distribute the information to the staff.

Attachment 2: Noteworthy Practices

Divisional Noteworthy Practices Include:

- The ESD Director supports the Division's safety program, and leads through articulating his ES&H vision and expectations at all divisional and department level gatherings and during walkthroughs. In FY08, the ESD Director encouraged staff to see safety as an integral part of the job requirement. He consistently communicated this message through the ESD weekly council meetings, in ESD Level 1 emails, and at Town Hall meetings.
- The ESD Director emphasized the use of safety glasses in the lab. ESD requires that all staff working in the labs wear safety glasses. All staff were notified that they can get prescription safety glasses free of charge at the medical center.
- The Geochemistry Department head distributes summaries of the weekly Division Council to all department members and requests input. He emphasizes safety as the first item in these communications.
- ES&H is a standing agenda item at quarterly Town Hall meetings, and the weekly Division Council meetings. The ESD Safety Coordinator participates at the Division Council meetings.
- The ESD Safety Coordinator submits a quarterly ES&H report to Division management and safety committee. This report summarizes the main ESD ES&H activities, incidents, authorization, training and JHA completion, OSSEPPS, ERGO evaluation and CATS. It is an effective tool for communicating the main safety issues to the division management.
- The ESD Director participates in the ESD Safety Committee meetings as his schedule permits. The Department Heads have been assigned permanent members of the ESD Safety Committee. This is included in the ESD ISM Rev.8.
- The ESD Health and Safety Web Page is continually updated and it is currently re-designed.
- The ESD Safety Coordinator is invited to Departmental meetings to present Health and Safety information.
- In order to understand the hazards of the Nanotechnology and communicate them to the ESD staff, the ESD Safety Coordinator attended a daylong seminar entitled, "EH&S Challenges of the Nanotechnology Revolution" on 8/6/08. This course was intended to introduce EH&S personnel, scientists and managers to the field of nanotechnology and review potential health, safety and environmental concerns

associated with this field. The division director supports the safety coordinator's continuous education.

- The ESD staff are well informed of the requirements and have already proactively working with the EH&S staff to resolve issues like identifying and cataloging modified electrical equipment and recognizing the need for task-JHA for field work.
- The ESD staff were requested to participate in the first ISM survey; 11.5% (32 of 278) of the staff responded. The results were discussed in the safety committee and will further analyzed to implement processes as suggested.
- ESD field staff have been conducting offsite work with no major incidents.
- DOE BSO V&V Effectiveness Review auditors identified a noteworthy practice, the ESD inspection log of the labs, which is used to document the monthly LLPI walkthrough.
- A list of ESD controlled safety documents is included in the ESD ISM Rev.8.
- The use of EHS059 identified a new employee as high risk and it prevented an ergonomic injury; his work station was evaluated and monitored until his risk level was lowered.
- A DOE BSO representative is invited to the safety committee, ESD SAA quarterly walkthroughs, and ESD walkthroughs.
- The CDC review of the ESD work did not identify any deficiencies and found that our select agent operation had good safety/security controls, and we were well organized.