

Job Hazard Analysis

Finding Statement C-1: The LBNL job hazard analysis process design and implementation does not sufficiently ensure that all hazards at the activity level are systematically identified, analyzed, and controlled, as needed to ensure compliance with 10 CFR 851, *Worker Safety and Health Program*, DOE Policy 450.4, *Safety Management System Policy*, and the *LBNL Health and Safety Manual*.

Causal analysis: Six root causes were identified for this finding as follows:

1. A formal requirements management process was not used during development of the job hazard analysis process, which should have included a documentation of expectations:
 - a. User
 - b. Regulatory
2. A project management approach was not used to design and implement the job hazard analysis process which should have included the following elements:
 - a. Review of alternative job hazard analysis models
 - b. Benchmark of job hazard analysis programs at other DOE labs
 - c. Involvement of the IT programmer at conceptual design
 - d. User testing of program before distribution
 - e. Adequate time and resources were not expended on this activity.
3. The current JHA tool does not support the level of flexibility required for a job hazard analysis document that can be easily updated.
4. Communication of the intrinsic value and concepts of job hazard analysis was not adequate including:
 - a. The message communicated to Divisions and the JHA Team by Senior Laboratory Management was that % completion to meet contract requirements was the goal of the JHA process
 - b. Implementation guide and formal training program were not produced
 - c. The Work Lead concept was not publicized to the general laboratory community
5. There was neither a communicated standard nor metrics for content of JHAs.
6. There was no institutional review and feedback for the level of specificity or detail in JHA contents.

Comment [PU1]: The issue here is not how often the JHA is updated, it's how easy it can be updated. John Seabury

Corrective Actions:

- 1-1 Enhance the level of awareness amongst LBNL senior management regarding the value and purpose of the JHA.
- 1-2 Modify the JHA tool to include a requirement and section for Descriptions of Work Activities, and require individual JHAs to include Descriptions of Work by close of FY2009.
- 1-3 LBNL will review existing JHA process for effectiveness. This review will include the following elements:
 - Systematic selection of individuals who will be interviewed about the work that they perform, and the results of the interview compared against their current Work Authorization
 - Communication of the results of each review to the individual and his/her Supervisor/Work Lead so that Line Management may use the results to better align the JHAs of their staff to the work they are performing.
 - Review of issues identified through the interviews to determine if there are dangers posed to workers as a result of the JHA process deficiencies that require immediate and compensatory action

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- Determination of whether system/tool improvements should be made immediately, or whether they should await major system revisions per items 1-5, 1-6 and 1-7 below.

1-4 LBNL management will assign a Project Manager to the JHA Improvement Project.

1-5 LBNL will identify the regulatory requirements that the institutional Job Hazard Analysis program must meet and define the endpoints that indicate conformance.

1-6 LBNL will define the operational requirements that the institutional Job Hazard Analysis process must meet using a Laboratory Cross Sectional team.

1-7 LBNL will form a Laboratory cross-sectional team to improve the JHA program to meet regulatory and operational requirements identified under 1-5 and 1-6 above. This process will be managed through a formalized project plan. The following must be included in the improvement project:

- JHA process that meets regulatory requirements and is flexible enough to meet user requirements
 - Benchmarking of job hazard analysis programs at other DOE labs
 - Review of current LBNL JHA processes and comparison to other DOE labs
 - Review of alternative job hazard analysis models
 - Involvement of IT programmer at review commencement
 - Consensus of the Team on conceptual model
 - User testing before widespread deployment and implementation
- Communication program
 - Implementation guide and user training
 - Discussion of the value of JHA in ISM
 - Understanding of all roles and responsibilities, especially that of Work lead, in the JHA process
- JHA content
 - Standard or metrics for JHA content
 - Institutional review of JHA contents
 - Incorporation of hazard/exposure assessment of activities
 - Feedback to users based on JHA content review with respect to work activities

1-8 LBNL will continue to review JHA process for effectiveness. While the current JHA process is in effect the review will continue the evaluations started in 1-3. Once the improved JHA process has been implemented, the review will be conducted on the improved JHA process. This review will include the following elements:

- Systematic selection of individuals who will be interviewed about the work that they perform, and the results of the interview compared against their current Work Authorization
- Communication of the results of each review to the individual and his/her Supervisor/Work Lead so that Line Management may use the results to better align the JHAs of their staff to the work they are performing.
- Review of issues identified through the interviews to determine if opportunities for process and/or tool improvement are present

Comment [PU2]: Actually, the precise regulatory requirements are vague: our interpretation of what constitutes "systematic", "activity level", and the like are not defined, so when HSS came in and said we weren't meeting them we had no recourse. In fact, these issues are NOT defined in regulation, so we (LBNL) need to identify what the elements are and what we will use as endpoints to claim victory. John Seabury