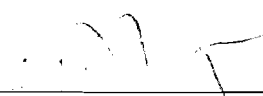
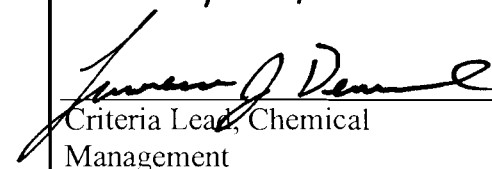


U.S. Department of Energy	Subject: Chemical Management Implementation Inspection Criteria, Approach, and Lines of Inquiry	HS: HSS CRAD 64-31 Rev: 0 Eff. Date: 11/27/2007
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Criteria Review and Approval Document	 Criteria Lead, Chemical Management Date: 11/27/07	

## 1.0 PURPOSE

Within the Office of Independent Oversight, the Office of Environment, Safety and Health (ES&H) Evaluations' mission is to assess the effectiveness of those environment, safety, and health systems and practices used by field organizations in implementing Integrated Safety Management and to provide clear, concise, and independent evaluations of performance in protecting our workers, the public, and the environment from the hazards associated with Department of Energy (DOE) activities and sites. A key to success is the rigor and comprehensiveness of our process; and as with any process, we continually strive to improve and provide additional value and insight to field operations. Integral to this is our commitment to enhance our program. Therefore, we have revised our Inspection Criteria, Approach, and Lines of Inquiry for internal use and also we are making them available for use by DOE line and contractor assessment personnel in developing and implementing effective DOE oversight and contractor self-assessment and corrective action processes on this WEB page.

## 2.0 APPLICABILITY

The following Inspection Criteria document is approved for use by the Office of ES&H Evaluations.

## 3.0 FEEDBACK

Comments and suggestions for improvements on these Inspection Criteria, Approach, and Lines of Inquiry can be directed to the Director of the Office of ES&H Evaluations on (301) 903-5392.

## **Chemical Management Implementation Inspection Criteria, Approach, and Lines of Inquiry**

**Introduction:** This document provides an overview of the Criteria, Activities, and Lines of Inquiry that will be used to collect information to evaluate the chemical management focus area against DOE policy, regulatory requirements. Primary attention will be given to activities governed by the Occupational Safety and Health Administration's Hazard Communication Standards (29 CFR 1910.1200 and 29 CFR 1926.59) and Occupational Exposure to Chemicals in Laboratories (29 CFR 1910.1450). However, review of any activities for managing, storing, or using hazardous chemicals, pesticides, and toxic materials governed by 29 CFR 1926 Subpart D, 29 CFR 1910 Subpart H, 29 CFR 1910 Subpart Z, 40 CFR Subchapter E, or 40 CFR Subchapter R are within the scope of this focus area.

[Note: This Criteria, Review, and Approval Document (CRAD) does not cover waste handling, treatment, or disposal. For a "cradle to grave" review of chemical management by a facility, this CRAD can be used in conjunction with the Hazardous Waste Management focus area CRAD (HSS CRAD 64-30). In addition, the DOE Chemical Management Handbook (DOE-HDBK-1139 volumes 1-3) can be used as a guide for sites to conduct internal reviews of their chemical management program].

**Inspection Criteria:** Line management ensures that the requirements for managing, storing, and using hazardous chemicals established under 29 CFR 1926 Subpart D, 29 CFR 1910 Subpart H, 29 CFR 1910 Subpart Z, 40 CFR Subchapter E, 40 CFR Subchapter R, and applicable DOE policies and regulations have been effectively implemented for federal and contractor employees, including subcontractors. Written programs are in place and updated when conditions or requirements change. Employees have been properly trained for the chemicals they handle. Material Safety Data Sheets (MSDS) are readily accessible. Line management ensures that work practices, engineering controls, personal protective equipment (PPE) and other requirements for managing, storing, or using hazardous chemicals are followed.

**Review Activity:** Review documents, policies, procedures, and written programs pertaining to managing, storing, and using hazardous chemicals. Review training programs, qualification requirements, and records for employees handling hazardous chemicals. Observe work activities involving the use of hazardous chemicals. Observe chemical storage practices. Interview responsible managers, subject matter experts, employees, and other staff responsible for procuring, managing, storing, or using hazardous chemicals. Interview personnel responsible for managing MSDSs, training curriculum, and other sources of information required by applicable regulations, policies, procedures, and program plans. On a selective basis, request employees to obtain MSDSs for chemicals to which they may be exposed.

### **Lines of Inquiry:**

- Are procedures in place to ensure that hazardous chemical use is identified during work planning, hazards associated with use are identified and analyzed, and appropriate controls are identified, selected, and implemented?

- Are the roles and responsibilities of employees, subject matter experts, and other support personnel, and line supervisors/managers well defined and communicated?
- Does the written hazard communication program include all required elements in sufficient detail and is the program effectively implemented?
- Are sufficient controls in place to ensure that unauthorized materials are not being procured, used, or stored?
- Are required MSDSs maintained for all chemicals and other materials, and are they specific to different formulation(s) that may be in use or storage?
- Are copies of MSDSs readily accessible to employees who handle or may otherwise be exposed to these chemicals/materials?
- Are consumer products, materials, and articles that are ineligible for exemption from the Hazard Communication Standard adequately addressed in the contractor and subcontractors hazard communication programs?
- Have the contractor and subcontractors adequately addressed multi-employer workplace requirements in their hazard communication programs?
- For chemicals used in laboratory operations, does the written chemical hygiene program include all required elements in sufficient detail and is the program effectively implemented?
- Are employees who may be exposed to hazardous chemicals or materials adequately trained and provided with the necessary information at the time of initial assignment and prior to introducing any new physical or chemical hazard into their work area?
- Have PPE requirements been properly identified for tasks involving hazardous chemicals or materials, and is the correct PPE being used?
- Are fume hoods, glove boxes, and other engineering controls properly calibrated, used, and maintained to minimize employee exposures?
- Are chemical containers and hazardous materials properly labeled in accordance with regulations, policies, procedures, and program plans?
- Are compressed gases, flammables, combustibles, reactives, explosives, corrosives, and pyrophorics stored and used in a manner that minimizes the potential for employee injury and facility damage?
- Are hazardous chemicals which are exempt from the Hazard Communication Standard and Occupational Exposure to Chemicals in Laboratories Standard managed and used in accordance with applicable regulations, policies, procedures, and program plans?
- Have line organizations implemented effective efforts to reduce or eliminate the acquisition and use of toxic or hazardous chemicals?
- Do personnel comply with labels, postings, MSDSs, work control documents, procedures, and permits, including working within defined scopes, instructions and hazard controls?
- Is there adequate supervision and oversight of activities involving chemical usage based on the hazards, risks, complexity, and potential for injury or release to the environment?