

INDUSTRIAL HYGIENE

1.0 Objective

The objective of this surveillance is to evaluate the effectiveness of programs implemented by the laboratory to anticipate, recognize, evaluate, and control environmental factors or stresses that may adversely affect the health of the Department's workers. The Facility Representative or Environmental, Safety, and Health Support Specialist conducts walkthroughs, observes activities, and reviews records to determine if the implementation of the laboratory's Industrial Hygiene Program is achieving required results. The Facility Representative or Environmental, Safety, and Health Support Specialist evaluates compliance with DOE requirements and implementation of best practices.

2.0 References

- 2.1 DOE O 440.1A, *Worker Protection Management for DOE Federal and Contractor Employees*
- 2.2 DOE 5480.4, *Environmental Protection, Safety and Health Protection Standards*
- 2.3 29 CFR 1910, *Occupational Safety and Health Standards for General Industry*

3.0 Surveillance Activities

In performing this surveillance, the Facility Representative or Environmental, Safety, and Health Support Specialist performs the following activities:

- 1. Review selected health hazard assessments for the laboratory.
- 2. Observe work involving health hazards to workers.
- 3. Examine Health Hazard Assessment and Control Records.

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Surveillance No.: _____

Facility: _____

Date Completed: _____

Activity 1 - Review Health Hazard Assessments

Health hazard assessments are performed periodically to anticipate, recognize, evaluate, and control occupational health hazards. The Facility Representative or Environmental, Safety, and Health Support Specialist reviews the most current health hazard assessment for one or more areas of the Facility.

	<u>YES</u>	<u>NO</u>	<u>N/A</u>
1. Has the hazard assessment been conducted within the following time frames?			
a. Within one year for industrial areas, research and development facilities, craft shops, etc.?	_____	_____	_____
b. Within three years for low-hazard areas such as offices and non-hazardous facilities?	_____	_____	_____
c. Within the frequency specified by the senior industrial hygienist for changing work sites such as construction sites and hazardous waste sites?	_____	_____	_____
2. Does the hazard assessment include analyses of all new designs, operations, processes, materials, and equipment?	_____	_____	_____
3. Does the hazard analysis encompass all changes (both proposed and completed) for operations, processes, materials, controls, and work practices with any potential to cause new or additional hazards?	_____	_____	_____
4. Does the hazard analysis include a comprehensive industrial hygiene survey with:			
a. An inspection of the work place?	_____	_____	_____
b. Observations of work practices?	_____	_____	_____
c. Results from monitoring to measure actual or potential exposure of employees to hazardous		a c	t i

ties?

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YES NO N/A

- | | | | | |
|----|--|-------|-------|-------|
| 5. | Have the results from the health hazard assessment been reviewed and approved by the senior industrial hygienist and a representative for facility management? | _____ | _____ | _____ |
| 6. | For significant or potentially significant hazards identified in the assessment, have actions been initiated to abate the hazard? | _____ | _____ | _____ |
| 7. | Have actions to abate hazards been appropriately prioritized and entered into the contractor's work breakdown structure? | _____ | _____ | _____ |

Activity 2 - Observe Work Practices

The Facility Representative or Environmental, Safety and Health Support Specialist selects work in progress such as routine operations, maintenance, decontamination or decommissioning, construction, or deconstruction for observation. The Facility Representative or Environmental, Safety and Health Support Specialist should select activities that entail occupational health risks such as exposure to hazardous, toxic, or carcinogenic materials or exposure to other physiological hazards such as extreme cold. A separate surveillance, OSS 19.8 provides for evaluating work activities that may involve exposure to heat stress. Before beginning this activity, the Facility Representative or Environmental, Safety and Health Support Specialist should obtain and review documents governing the work such as work packages, administrative procedures, and program documents.

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|-----|---|-------|-------|-------|
| 8. | Do the governing documents identify the occupational health hazards that will be encountered by the workers while performing these tasks? | _____ | _____ | _____ |
| 9. | Do the work documents specify appropriate hazard prevention and control measures to protect the health of workers? | _____ | _____ | _____ |
| 10. | In specifying hazard prevention and control measures, has adequate consideration been given to the following: | | | |
| a. | Changing process or work conditions to use less hazardous materials? | _____ | _____ | _____ |
| b. | Isolation or enclosure of work to prevent exposure to | | h | a |

ards?

- c. Ventilation controls or other engineering controls to prevent or reduce exposure? ☐ ☐ ☐
- d. Establishing rigorous procedures to reduce or eliminate exposure? ☐ ☐ ☐

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	<u>YES</u>	<u>NO</u>	<u>N/A</u>
e. Use of personal protective equipment?	☐	☐	☐
f. Isolating the work area or conducting work during periods of reduced occupancy?	☐	☐	☐
11. If personal protective equipment such as use of respirators has been mandated, are work conditions such that it is not feasible to limit worker exposure by some other means such as engineering controls or alternative work practices?	☐	☐	☐
12. Are workers complying with hazard prevention and control measures specified in the work documents?	☐	☐	☐
13. If employees are using respirators, have they:			
a. Been medically qualified to use the respirator?	☐	☐	☐
b. Been fit-tested for the respirator?	☐	☐	☐
c. Received required training on use of respirators?	☐	☐	☐
14. Are respirators used by employees approved by the National Institute of Occupational Safety and Health or equivalent?	☐	☐	☐
15. Is monitoring performed in accordance with requirements established in the work documents?	☐	☐	☐
16. Is equipment used to perform monitoring within the established calibration interval?	☐	☐	☐

Activity 3 - Examine Records

The Facility Representative or Environmental, Safety, and Health Support Specialist selects specific records regarding recent work projects for examination. As a minimum, the Facility

Representative or Environmental, Safety, and Health Support Specialist should select work activities that involve personnel monitoring for airborne contaminants, specific surveys to detect hazardous chemicals, and training records.

17. Are records available documenting the results of exposure monitoring for employees including a description of sampling, analytical methods, and interpretation of results? _____

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	<u>YES</u>	<u>NO</u>	<u>N/A</u>
18. Do records substantiate that employees were informed of the results of exposure monitoring within 10 working days of receipt of monitoring results?	_____	_____	_____
19. Do exposure monitoring results verify that total exposure to employees was below the applicable threshold limit value for hazardous substances?	_____	_____	_____
20. Do records document the basis for selecting specific employees for exposure monitoring?	_____	_____	_____
21. Do records of surveys for hazardous chemicals identify sampling techniques, areas sampled, and results?	_____	_____	_____
22. Do records of surveys note conditions that may have affected sample results?	_____	_____	_____
23. Do training records substantiate that a sample of workers have received training in the following:			
a. Methods and observations that may be used to detect the presence of occupational health hazards?	_____	_____	_____
b. Physical and health hazards of hazardous chemicals, harmful physical agents, and harmful biologic agents?	_____	_____	_____
c. Measures to protect employees from hazards?	_____	_____	_____
24. Do training records substantiate that a sample of line managers and supervisors have received training in the following:			
a. Management responsibilities for implementing industrial hygiene requirements?	_____	_____	_____

- b. Recognizing occupational health hazards that employees
under their direction may encounter?
- c. Content of the laboratory's industrial hygiene program?

_____	_____	_____
_____	_____	_____

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	<u>YES</u>	<u>NO</u>	<u>N/A</u>
OTHER:			

NOTES/COMMENTS:

HAZARD ASSESSMENT REVIEWED:_____

PERSONNEL CONTACTED:_____

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**IF MORE SPACE IS NEEDED FOR FINDINGS, OBSERVATIONS, AND FOLLOWUP
ITEMS - USE ADDITIONAL SHEETS**

FINDINGS:

Finding No.: _____

Description: _____

Finding No.: _____

Description: _____

Finding No.: _____

Description: _____

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OBSERVATIONS:

Observation No.: _____

Description: _____

Observation No.: _____

Description: _____

Observation No.: _____

Description: _____

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FOLLOWUP ITEMS:

Followup Item No.: _____

Description: _____

Followup Item No.: _____

Description: _____

Followup Item No.: _____

Description: _____

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LABORATORY MANAGEMENT DEBRIEFED AND RESULTS: _____

Signature: _____ Date: _____

Facility Representative or
Environmental, Safety, and Health Support Specialist