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Self-Assessment File

Date: April 28, 2000

To: CL Caldwell

From: MP Long *Myra P. Long*

Subject: 1999 Self-Assessment of the Pacific Northwest National Laboratory
(PNNL) Industrial Hygiene and Occupational Safety Records
Management Functional Element File/LB

The attached report documents the evaluation of PNNL's Industrial Hygiene and Occupational Safety Records Management Functional Element conducted during 1999.

The assessor considers PNNL's overall implementation of maintaining Industrial Hygiene and Occupational Safety records to be rated as number 1 on the 0 to 4 scale as described in Exhibit 20 of this report. This rating is primarily due to the lack of a centralized record system used by all staff members performing Industrial Hygiene/Occupational Safety monitoring, and poor organization of required documentation. There were a large number of deficiencies identified in this assessment (3 findings and 27 observations). Preparing a Records Inventory and Disposition System will help ensure the required Industrial Hygiene/Occupational Safety records are maintained and sent to the appropriate record storage. It should be noted that significant program improvements and several subject areas were developed during this assessment.

A Price Anderson Amendment Act (PAAA) screening of this report for compliance to 10 CFR 830.120 identified a potential noncompliance with the work processes.

All conditions can be found under 3230 in the Assessment Tracking System (ATS).

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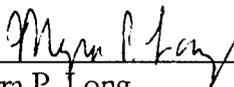
Attachments

1999 Safety and Health Self-Assessment
of the
Industrial Hygiene and Occupational Safety Records Management

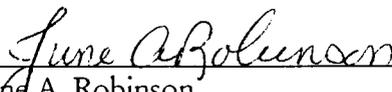
Assessment Period: March - November 1999

Report Date: April 28, 2000

Assessment Performed by:



Myra P. Long
Safety and Health Technical Support



June A. Robinson
Safety and Health Technical Support

SUMMARY

This report documents the assessment of PNNL's Industrial Hygiene and Occupational Safety Records Management Functional Element conducted during the period March through November 1999.

The assessors consider PNNL's overall implementation of maintaining Industrial Hygiene and Occupational Safety records to be rated as a number 1 on the 0 to 4 scale as described in Exhibit 20 of this report. This rating is primarily due to the lack of a centralized record keeping system used by all staff members performing Industrial Hygiene/Occupational Safety monitoring, and poor organization of required documentation. There were a large number of deficiencies identified in this assessment (3 findings and 27 observations). Preparing a Records Inventory and Disposition System and requiring its use will help ensure the required Industrial Hygiene/Occupational Safety records are maintained and sent to the appropriate record storage. It should be noted that significant program improvements and several subject areas were developed during this assessment.

A Price Anderson Amendment Act (PAAA) screening of this report for compliance to 10 CFR 830.120 identified a potential noncompliance with work processes.

The assessment followed PNL-MA-858 procedure, SHP-3.02, *Safety and Health Self-Assessment*, Revision 0. The enclosed attachment contains the audit plan and Exhibits 1 – 19, which contain specific details of the items reviewed and an explanation of the deficiencies identified below. Exhibit 20 provides a description of the ratings used to evaluate the overall implementation. The assessors selected categories of records to assess, and searched the DOE Orders and Codes of Federal Regulations referenced in Worker Safety and Health Management System Description for record requirements. The assessors searched the available PNNL subject areas and manuals to determine if the requirements were reflected in PNNL's documentation. Finally, the assessors interviewed selected staff members to determine if the procedures and the requirements are implemented.

As listed in the audit plan, definitions of the deficiencies are as follows:

Finding: A direct and significant departure from a requirement that could result in significant safety consequences. Findings should be promptly investigated. Corrective actions, if appropriate, should be administered as soon as practical. For Safety and Health self-assessments, noncompliances with regulatory requirements or PNNL procedures are considered to be findings.

Observation: A poor practice or weakness that, in the judgement of the assessor, does not pose the potential for significant safety or compliance consequences, but if not corrected could result in a finding. Observations should be investigated as soon as practical. Corrective actions, if appropriate, should be administered as soon as practical.

The assessment revealed 30 deficiencies. There were 3 findings and 27 observations. The findings involved noncompliance with Industrial Hygiene Procedures, PNL-MA-430, noncompliance with Standard Operating Procedure MSL-S-001-02, and noncompliance with the Hanford Site Lockout/Tagout Program and PNNL Lockout/Tagout Subject Area requirements.

The following is a listing of the deficiencies. The exhibits to the assessment plan provide further details. Each deficiency has been entered into an Assessment Tracking System (ATS) as a condition, along with a condition owner. The condition owner is responsible for providing an action plan in ATS. The action plan should identify what will be done to correct the condition and identify who has the action as well as when it will be completed. The listing below identifies the condition numbers and the condition owners.

1. **Finding 99IH&OSRM.001 (General):** There is widespread inconsistency in methods used to document hazards evaluated and methods used to maintain exposure monitoring records per requirements listed in the "Industrial Hygiene Monitoring – Information Flow and Record Keeping" procedure and the "Hazardous Chemical and Physical Agent Exposure Monitoring Determination" procedure. These procedures are consistently not being followed by staff members. Record retrieval is not always possible.
ATS Condition Number: 3230.1 ATS Condition Owner: SD Dossett
2. **Finding 99IH&OSRM.002 (Diving):** Contrary to 29 CFR 1910.440(b)(4), Liam Antrim, Diving Officer, indicated in an email message that all records are maintained in his office. No records have been forwarded to NIOSH. Records date to 1993.
ATS Condition Number: 3230.2 ATS Condition Owner: ME Pease
3. **Finding 99IH&OSRM.003 (Lockout/Tagout):** The "Lockout/Tagout" subject area requires the Controlling Organization to appoint an Authorized Worker to review lockouts/tagouts logbooks annually for completeness and to conduct a visual survey of current lockouts/tagouts. Annual surveillances of the lockout/tagout logbook maintained at the 350 Building are not being performed.
ATS Condition Number: 3230.3 ATS Condition Owner: PJ Gaither
4. **Observation 99IH&OSRM.002 (Accident, Injury and Illness):** There is no manual/subject area statement that PNNL shall comply with 29 CFR 1904.3 requirement that Accident, Injury, and Illness Investigation records shall be established on a calendar year basis instead of fiscal year basis.
ATS Condition Number: 3230.4 (complete) ATS Condition Owner: CL Caldwell
5. **Observation 99IH&OSRM.003 (Accident, Injury, and Illness):** There is no PNNL manual/subject area describing the preparation of the annual summary of occupational injuries and illnesses required by 29 CFR 1904.5.
ATS Condition Number: 3230.5 (complete) ATS Condition Owner: CL Caldwell
6. **Observation 99IH&OSRM.004 (Accident, Injury and Illness):** There is no manual/subject area statement that PNNL shall comply with the 29 CFR 1904.6 requirement that records of occupational injuries and illnesses be retained for five years.
ATS Condition Number: 3230.6 (complete) ATS Condition Owner: CL Caldwell
7. **Observation 99IH&OSRM.005 (Accident, Injury and Illness):** There is no manual/subject area statement that PNNL shall comply with the 29 CFR 1904.7 requirement that records of occupational injuries and illnesses be made available to any employee, former employee, and to

using exposure or medical records of employees monitored for chemical exposure shall be preserved and maintained for at least 30 years.

ATS Condition Number: 3230.16

ATS Condition Owner: CL Caldwell

17. **Observation 99IH&OSRM.015 (Chemical Safety):** There is no PNNL manual/subject area statement that ensures compliance with the 29 CFR 1910.1020.e.1 requirement that whenever an employee or designated representative requests access to a chemical exposure monitoring record or medical record, the employer shall assure that access is provided in a reasonable time, place, and manner. If the employer cannot reasonably provide access to the record, the employer shall apprise the employee of the reason for the delay and the earliest date when the record can be made available.

ATS Condition Number: 3230.17

ATS Condition Owner: CL Caldwell

18. **Observation 99IH&OSRM.016 (Chemical Safety):** There is no manual/subject area statement that PNNL shall comply with the 29 CFR 1910.1025.d.5 and 29 CFR 1926.62 requirements that where a determination is made that no employee is exposed to airborne concentrations of lead at or above the action level, the employer shall make a written record of such determination. The record shall include any information that would indicate employee exposure to lead; any previous measurements of airborne lead; and any employee complaints of symptoms which may be attributable to exposure to lead.

ATS Condition Number: 3230.18

ATS Condition Owner: CL Caldwell

19. **Observation 99IH&OSRM.017 (Chemical Safety):** There is no manual/subject area statement that PNNL will comply to 29 CFR 1910.1025.n.1 or 29 CFR 1926.62.n.1 requirements that the exposure monitoring record will include:

- a description of the sampling and analytical methods used, and evidence of their accuracy;
- the type of respiratory protective devices worn, if any;
- name, social security number, and job classification of the employee monitored and of all other employees whose exposure the measurement is intended to represent; and
- environmental variables that could affect the measurement of employee exposure.

ATS Condition Number: 3230.19

ATS Condition Owner: CL Caldwell

20. **Observation 99IH&OSRM.018 (Confined Space):** There is no manual/subject area statement that PNNL will comply to 29 CFR 1910.146 App B(2) requirement that results of atmosphere testing be recorded on the confined spaces entry form.

ATS Condition Number: 3230.20

ATS Condition Owner: CL Caldwell

21. **Observation 99IH&OSRM.019 (Diving):** There is no manual/subject area statement that PNNL/the Marine Science Laboratory will comply with the 1910.440.b.2 requirement that the affected employee be given access to diving records and documents.

ATS Condition Number: 3230.21

ATS Condition Owner: ME Pease

22. **Observation 99IH&OSRM.020 (Hearing Conservation and Noise):** There is no manual/subject area statement that PNNL will comply with the 29 CFR 1910.95.m.3.i requirement that noise exposure measurement records be retained for two years.

ATS Condition Number: 3230.22

ATS Condition Owner: CL Caldwell

23. **Observation 99IH&OSRM.021 (Hoisting and Rigging):** Neither DOE-RL-92-36 nor PNNL manuals/subject areas adequately address the 29 CFR 1926.550.a.1 requirements that limitations, based on the determinations of a qualified engineer competent in this field, be assigned to the equipment and that the limitations be documented when manufacturer's specification are not available.

ATS Condition Number: 3230.23

ATS Condition Owner: ME Pease

24. **Observation 99IH&OSRM.022 (Hoisting and Rigging):** Neither DOE-RL-92-36 nor PNNL manuals/subject areas contain statements that PNNL will comply with the 29 CFR 1926.550.a.11 requirement that tests be made and recorded to verify that employees are not exposed to unsafe concentrations of toxic gases or oxygen deficient atmospheres whenever internal combustion engine powered equipment exhausts into enclosed spaces.

ATS Condition Number: 3230.24

ATS Condition Owner: ME Pease

25. **Observation 99IH&OSRM.023 (Hoisting and Rigging):** Neither DOE-RL-92-36 nor PNNL manuals/subject areas contain statements that PNNL will comply with the 1926.550.a.1 requirements that limitations, based on the determinations by a qualified engineer competent in this field, be assigned to the equipment, and that the limitations be documented when manufacturer's specifications are not available.

ATS Condition Number: 3230.25

ATS Condition Owner: ME Pease

26. **Observation 99IH&OSRM.024 (Motor Vehicle Safety):** There is no manual/subject area statement that PNNL will comply with the DOE 5484.1.II.1.e.2 requirement to report motor vehicle accidents on Form 5484.4, Tabulation of Property Damage Experience.

ATS Condition Number: 3230.26 (complete) ATS Condition Owner: CL Caldwell

27. **Observation 99IH&OSRM.025 (Motor Vehicle Safety):** There is no manual/subject area statement that PNNL will comply with the DOE 5484.1.II.1.e.2. requirement to submit copies of the motor vehicle accident reports to the Statistica, Inc., on or before the 25th of the month following the end of the quarter in which the accident occurred.

ATS Condition Number: 3230.27 (complete) ATS Condition Owner: CL Caldwell

28. **Observation 99IH&OSRM.026 (Respiratory Protection):** An assessment of the FDH subcontractor has not been conducted by PNNL to determine they comply with the 29 CFR 1910.134 requirements.

ATS Condition Number: 3230.28

ATS Condition Owner: CL Caldwell

29. **Observation 99IH&OSRM.027 (Respiratory Protection):** There is no description of the records to be kept or who is to keep the records. If a MOU exists between the FDH subcontractor and PNNL, it should be mentioned in the program description. The SBMS subject area "Laboratory-Wide Procedure and Guidelines" does not clearly explain how to carry programmatically mandatory record requirements to the appropriate organization. This is especially important in cases where PNNL expects a service provider to maintain a given record.

ATS Condition Number: 3230.29

ATS Condition Owner: CL Caldwell

30. **Observation 99IH&OSRM.028 (Chemical Safety):** According to the “Exposure Monitoring” subject area, if exposure monitoring is conducted to determine lead exposure, communicate the results to the affected staff member(s) within five working days. There are no indications that staff members are notified of monitoring results within five days.

ATS Condition Number: 3230.30

ATS Condition Owner: ME Pease

Self-Assessment Plan:
Industrial Hygiene/Occupational Safety Records

1 Introduction

1.1 Purpose

This procedure is a self-assessment plan for the Industrial Hygiene/Occupational Safety Records.

1.2 Scope

The Industrial Hygiene/Occupational Safety Records Assessment includes the following aspects of Industrial Hygiene/Occupational Safety. It includes:

- Accident, Injury, and Illness Investigations
- Asbestos Program
- Beryllium Program
- Biohazards
- Chemical Safety
- Confined Spaces
- Diving
- Explosive Safety
- Hazard Communication
- Hazardous Waste
- Hearing Conservation and Noise
- Hoisting and Rigging
- Ladders/Fall Protection
- Lasers
- Lock and Tag
- Machine Guarding
- Motor Vehicle Safety
- Respiratory Protection
- Welding Safety

1.3 Responsibilities

The Industrial Hygiene & Occupational Safety Operations Group Leader is responsible for ensuring that self-assessments of the Industrial Hygiene/Occupational Safety Records program are performed and for ensuring that any deficiencies are entered into the Assessment Tracking System (ATS).

1.4 Definitions

ATS: A PNNL software application used to track and manage audit/assessment findings and subsequent corrective actions.

Finding: A direct and significant departure from a requirement that could result in significant safety consequences. Findings should be promptly investigated. Corrective actions, if appropriate, should be administered as soon as practical. For Safety and Health self-assessments, noncompliances with regulatory requirements or PNNL procedures are considered to be findings.

Observation: A poor practice or weakness that, in the judgement of the assessor, does not pose a potential for significant safety or compliance consequences, but if not corrected could result in a finding. Observations should be investigated as soon as practical. Corrective actions, if appropriate, should be administered as soon as practical.

1.5 Discussion

Management and staff should view the assessment as helpful and the correction of deficiencies as a means to improve the Industrial Hygiene/Occupational Safety Program.

2 Prerequisites

The Industrial Hygiene/Occupational Safety Records assessment shall have a self-assessment plan that includes a checklist of requirements that will be used to evaluate compliance.

The self-assessment program shall involve qualified experts as needed to assist in technical areas.

The assessor shall arrange with assessed staff to perform the assessment. The assessor should review the self-assessment plan and checklist before performing the assessment and should possess a copy of the checklist for reference during the assessment.

3 Precautions and Limitations

Read and sign appropriate Radiological Work Permits before entering radiological areas.

4 Required Equipment and Materials

Self-Assessment Checklist(s): Industrial Hygiene/Occupational Safety Records

5 Procedure

Industrial Hygiene & Occupational Safety Operations Group Leader

- 1) Appoint an Industrial Hygiene/Occupational Safety Records self-assessment team leader and, if necessary, any additional experienced staff members needed to complete the assessment.
- 2) Prepare an audit schedule for the Industrial Hygiene/Occupational Safety Records self-assessment.
- 3) Provide resources to conduct the Industrial Hygiene/Occupational Safety Records self-assessment.
- 4) Ensure that the Industrial Hygiene/Occupational Safety Records self-assessment team conducts the audit according to the schedule.

Self-Assessment Team

- 5) Obtain and review results from previous audits, if available.

- 6) Review the checklist(s) for any changes in the requirements and make appropriate changes to the checklist(s).
- 7) Schedule interviews with the subject matter experts of the targeted subjects.
- 8) Complete the Industrial Hygiene/Occupational Safety Records self-assessment checklist during the interviews.
- 9) Prepare a written report of the audit results, including a list of deficiencies, observations, good practices, and recommendations for improvement. Attached the completed assessment checklist to the report.
- 10) Deliver the completed audit report to the Industrial Hygiene and Occupational Safety Operations Group Leader.

Industrial Hygiene and Occupational Safety Operations Group Leader

- 11) Review the completed assessment report. Forward copies to the Safety and Health Department Manager and appropriate line managers.
- 12) Ensure entry of deficiencies into ATS and assignment of conditions to the appropriate manager.

Line Management

- 13) Ensure that items of noncompliance in ATS are corrected and closed out in a timely fashion.

6 References

- 29 CFR 1904, Labor/Recording and Reporting Occupational Injuries and Illnesses
- 29 CFR 1910, Labor/Occupational Safety and Health Standards
- 29 CFR 1926, Labor/Safety and Health Regulations for Construction
- DOE 5480.19, Conduct of Operations Requirements for DOE Facilities
- DOE 5484.1, Environmental Protection, Safety, and Health Protection Information Reporting Requirements
- DOE N 440.1, Interim Chronic Beryllium Disease Prevention
- ANSI Z 136.1-1993, American National Standard for the Safe Use of Lasers

7 Records

Enter completion of the self-assessment in the tracking system (normally ATS) used to schedule the self-assessment. Enter all findings and observations into ATS as conditions.

8 Exhibit

- Exhibit 1: Accident, Injury and Illness Investigations Records Checklist
- Exhibit 2: Asbestos Program Records Checklist
- Exhibit 3: Beryllium Program Records Checklist
- Exhibit 4: Biohazard Records Checklist
- Exhibit 5: Chemical Safety Records Checklist
- Exhibit 6: Confined Space Records Checklist
- Exhibit 7: Diving Records Checklist
- Exhibit 8: Explosive Safety Records Checklist

Exhibit 9: Hazard Communication Records Checklist
Exhibit 10: Hazardous Waste Records Checklist
Exhibit 11: Hearing Conservation and Noise Records Checklist
Exhibit 12: Hoisting and Rigging Records Checklist
Exhibit 13: Ladders/Fall Protection Records Checklist
Exhibit 14: Lasers Records Checklist
Exhibit 15: Lock and Tag Records Checklist
Exhibit 16: Machine Guarding Records Checklist
Exhibit 17: Motor Vehicle Safety Records Checklist
Exhibit 18: Respiratory Protection Records Checklist
Exhibit 19: Welding Safety Records Checklist
Exhibit 20: Program/Element Implementation Ratings for Health and Safety Department Self-Assessments (from PNL-MA-858, "Safety and Health Administrative Procedures," SHP-3.02, "Safety and Health Assessments").