

BROOKHAVEN NATIONAL LABORATORY Safety & Health Services Division INDUSTRIAL HYGIENE GROUP	NUMBER IH50700
	REVISION Final Rev5
SUBJECT: Industrial Hygiene Requirements Management	DATE 08/01/08
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1.0 Purpose & Scope

This document describes the program the Safety and Health Services Division (SHSD) Industrial Hygiene Group (IHG) uses to track changes in legal requirements to ensure that BNL and SHSD Industrial Hygiene Group policies and documents remain in compliance with applicable requirements. The program is also intended to identify new requirements or changes at the proposal level before they are implemented, so that the Laboratory can plan for potential impacts. This procedure supplements the Laboratory's *Requirements Management System* described in SBMS.

The scope of this procedure applies to requirements (drivers) and best management proactive documents found in:

- DOE regulations, Orders, Notices, and Guides
- OSHA worker health and safety regulations,
- DOE mandated ANSI standards,
- ANSI standards incorporated by reference in OSHA regulations,
- ANSI standards used by BNL as best management practices,
- DOE mandated ACGIH *Threshold Limit Values*®,
- [DOE mandated NFPA Standards](#),
- DHHS Etiological Agent requirements, and

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- Other applicable drivers as appropriate.

2.0 Responsibilities

This procedure is administered through the SHSD Industrial Hygiene Group.

2.1 The IH Group Leader is responsible to:

- Assign IH staff to conduct operations covered by this program.
- Ensure that IH Staff follow the policies of this program.

2.2 The IH Group Subject Matter Experts, SBMS Subject Area Point of Contacts, and/or IH Program Administrators (SMEs) are responsible to:

- Maintain up to date information regarding changes to regulations.
- Review proposed changes to regulations for potential impact to Laboratory operations.
- Apprise the Laboratory management and Departments/Divisions of the impact of requirement changes.
- Complete the notifications and documentation as required by the Requirements Management Subject Area.
- Initiate changes in Subject Areas and SHSD IHG level procedures, as necessary.
- Coordinate incorporation of requirements covering multiple hazards types, such as NFPA Standards for Chemicals.

3.0 Definitions

External Requirements Document: Any federal, state, or local law or regulation; DOE Directive; or other document that imposes requirements upon the Laboratory. An example is an OSHA regulation. Other documents include Executive Orders and the BSA Prime Contract.

Record of Decision (ROD): The documentation that illustrates how an external requirement document is being implemented at the Laboratory (described in the SBMS requirements management process).

Subject Matter Expert (SME): For this SOP, the title SME refers to the roles of Standards Based Management System (SBMS) Subject Area Subject Matter Expert, SBMS Point of Contact (POC) and/or IH Group Program Administrator. The SME is the individual assigned

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prime responsibility for maintaining expertise in one or more Industrial Hygiene topical areas.

4.0 Prerequisites none

5.0 Precautions none

6.0 Procedure

6.1 Equipment: computer and the internet

6.2 The IH Program SME periodically (at least annually, ideally quarterly) reviews governmental agency websites and other resources for proposed or enacted changes to applicable drivers. At a minimum, the IH group accesses the appropriate sources for the drivers listed in Attachment 9.1. SMEs can also keep apprised of pending legislation through workgroups, listservs, Federal and State registers and publications.

6.3 The SME conferences with the SHSD Requirement Management Coordinator who notifies the SBMS Office of any pending requirement changes that could potentially affect Laboratory operations if SBMS documentation needs updating. When a regulatory driver changes, the SME reviews the requirement for impact on BNL operations. The SME documents this review using the *External Requirements Document Record of Decision Form* found on the SBMS site at <https://sbms.bnl.gov/standard/02/0201e011.doc>. The SME maintain copies of appropriate documents in the Industrial Hygiene program files.

NOTE: The SBMS Office may notify the appropriate Management System Steward of the pending or proposed regulatory changes or new requirements that may impact Laboratory operations. The Management System Steward forwards the requirement to the SME for review.

6.4 The IH Group's program SME initiates changes in Subject Areas, training material, or SHSD procedures, if needed, so that the Laboratory achieves compliance with the new or changed requirements.

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- 6.5 The IH Group's program SME contacts and coordinates with other SMEs to ensure the incorporation of drivers that cover multiple hazards into the appropriate SBMS Subject Areas and site level training material, so that the Laboratory achieves compliance with the new or changed requirements.
- 6.6 The IH Group distributes needed guidance information to the affected Department or Division if requirement changes impact Laboratory operations. The IH Group provides technical assistance to the line organization in the implementation of any new regulatory requirements and/or interpretation of the requirements as they pertain to the line.
- 6.7 If BNL needs to implement corrective action(s), the SME identifies the responsibility to the line organization(s) and enters Corrective/Preventative Actions into the appropriate of the BNL Assessment Tracking System (ATS) or SHSD Family Assessment Tracking System (FATS).
- 6.8 The person completing the periodic review stores the completed review survey form as per the SHSD IH Group Records Management procedure [IH60200](#). The appropriate file code is IH50.

7.0 Implementation and Training

- 7.1 **Qualification Criteria:** The IH Group Leader will instruct all appropriate IH Group staff in their role relative to this procedure and will assign person(s) with technical knowledge and computer experience to conduct the periodic requirement reviews. Qualification is documented using Attachment 9.2. Re-qualification is required on a three year basis.

8.0 References

- 8.1 [BNL SBMS Requirements Management Subject Area](#)
8.2 [BNL SBMS Internal Controlled Documents Subject Area](#)

9.0 Attachments

- 9.1 SHSD Industrial Hygiene Group- Regulatory Driver List

The only official copy is on-line at the SHSD IH Group website.
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- 9.2 SHSD Industrial Hygiene Group- Qualification form.
- 9.3 Sample of the *Periodic Regulatory Driver Survey*

10.0 Documentation

Document Development and Revision Control Tracking		
PREPARED BY: <i>(signature and date on file)</i> R. Selvey Date 07/16/04	REVIEWED BY: <i>(signature and date on file)</i> J. Peters Date 07/19/04	APPROVED BY: <i>(signature and date on file)</i> R. Selvey IH Manager Date 07/20/04
ESH Coordinator/ Date: <i>none</i>	Work Coordinator/ Date: <i>none</i>	SHSD Manager / Date <i>none</i>
QA Representative / Date: <i>M. Snyder 11/15/06</i>	Training Coordinator / Date: <i>none</i>	Filing Code: IH52
Facility Support Rep. / Date: <i>none</i>	Environ. Compliance Rep. / Date: <i>none</i>	Effective Date: 07/20/04
ISM Review - Hazard Categorization <input type="checkbox"/> High <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Low/Skill of the craft	Validation: <input type="checkbox"/> Formal Walkthrough <input checked="" type="checkbox"/> Desk Top Review <input type="checkbox"/> SME Review Name / Date:	Implementation: Training Completed: Tracked in BTMS Procedure posted on Web: 08/01/08 Hard Copy files updated: 08/01/08 Document Control: 08/01/08

Revision Log
Purpose: <input type="checkbox"/> Temporary Change <input type="checkbox"/> Change in Scope <input type="checkbox"/> Periodic review <input checked="" type="checkbox"/> Clarify/enhance procedural controls Changed resulting from: <input type="checkbox"/> Environmental impacts <input type="checkbox"/> Federal, State and/or Local requirements <input type="checkbox"/> Corrective/preventive actions to non-conformances <input checked="" type="checkbox"/> none of the above Section/page and Description of change: Changes to Section 6 to streamline the wording and improve clarity of actions. Updated Modified Attachment 9.1 to remove non essential entries and clarify BMP and Regulatory entries. Modified Section 10 to new format. Added Attachment 9.3 Periodic Review form. SME Reviewer/Date: <i>(signature/date on file)</i> R. Selvey 11/01/05
Purpose: <input type="checkbox"/> Temporary Change <input type="checkbox"/> Change in Scope <input type="checkbox"/> Periodic review <input checked="" type="checkbox"/> Clarify/enhance procedural controls Changed resulting from: <input type="checkbox"/> Environmental impacts <input type="checkbox"/> Federal, State and/or Local requirements <input checked="" type="checkbox"/> Corrective/preventive actions to non-conformances <input type="checkbox"/> none of the above Section/page and Description of change: Changes to Attachment 9.1 in the form of added or modified requirement/drivers. Changes resulted as corrective/preventative action form OHSAS 18001 NSF Registration Audit for Phase 3. Added Step 6.7 for records management. SME Reviewer/Date: <i>(signature/date on file)</i> R. Selvey 12/0806

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<p>Purpose: <input type="checkbox"/> Temporary Change <input type="checkbox"/> Change in Scope <input type="checkbox"/> Periodic review <input checked="" type="checkbox"/> Clarify/enhance procedural controls Changed resulting from: <input type="checkbox"/> Environmental impacts <input type="checkbox"/> Federal, State and/or Local requirements <input checked="" type="checkbox"/> Corrective/preventive actions to non-conformances <input type="checkbox"/> none of the above Section/page and Description of change: Minor text changes marked in document resulting from QA Coordinator Review and comments from Training/Qualification Class. SME Reviewer/Date: <i>(signature/date on file) R. Selvey 01/02/07</i></p>
<p>Purpose: <input type="checkbox"/> Temporary Change <input type="checkbox"/> Change in Scope <input type="checkbox"/> Periodic review <input checked="" type="checkbox"/> Clarify/enhance procedural controls Changed resulting from: <input type="checkbox"/> Environmental impacts <input type="checkbox"/> Federal, State and/or Local requirements <input type="checkbox"/> Corrective/preventive actions to non-conformances <input checked="" type="checkbox"/> none of the above Section/page and Description of change: Added P456.1 to Attachment 9.1. SME Reviewer/Date: <i>(signature/date on file) R. Selvey 01/12/07</i></p>
<p>Purpose: <input type="checkbox"/> Temporary Change <input type="checkbox"/> Change in Scope <input type="checkbox"/> Periodic review <input checked="" type="checkbox"/> Clarify/enhance procedural controls Changed resulting from: <input type="checkbox"/> Environmental impacts <input type="checkbox"/> Federal, State and/or Local requirements <input checked="" type="checkbox"/> Corrective/preventive actions to non-conformances (DOE BHSO HazMat Surveillance 2008) <input type="checkbox"/> none of the above Section/page and Description of change: Added NFPA drivers and coordination with other SME to SOP: added third from last bullet in Section 1; added last bullet in Section 2.2; added Step 6.5; added NFPA to Attachment 9.1. Remove N450.7 from Attachment 9.1. SME Reviewer/Date: <i>(signature/date on file) R. Selvey 08/01/08</i></p>

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Attachment 9.1

Industrial Hygiene Regulatory Drivers

Document	Title
29 CFR 1910	Labor/Occupational Safety and Health Standards
1910.94 Ventilation	1910.1020 Access to employee exposure and medical records.
1910.95 Noise and Hearing Conservation	1910.1025 Lead.
1910.120 Hazardous waste operations and emergency response	1910.1027 Cadmium.
1910.133 Eye and face protection.	1910.1028 Benzene.
1910.134 Respiratory protection.	1910.1030 Bloodborne pathogens.
1910.135 Head protection.	1910.1043 Cotton dust.
1910.136 Foot protection.	1910.1044 1,2-dibromo-3-chloropropane.
1910.138 Hand protection.	1910.1045 Acrylonitrile.
1910.141 Sanitation.	1910.1047 Ethylene oxide.
1910.146 Permit-required confined spaces.	1910.1048 Formaldehyde.
1910.151 Medical services and first aid.	1910.1050 Methylenedianiline.
1910.1000 Air contaminants.	1910.1051 1,3-Butadiene.
1910.1001 Asbestos.	1910.1052 Methylene Chloride.
1910.1002 Coal tar pitch volatiles; interpretation of term.	1910.1096 Ionizing radiation.
1910.1003 13 Carcinogens (4-Nitrobiphenyl, etc.).	1910.1200 Hazard communication.
1910.1004 alpha-Naphthylamine.	1910.1450 Occupational exposure to hazardous chemicals in laboratories.
1910.1017 Vinyl chloride.	
1910.1018 Inorganic arsenic.	
29 CFR 1926	Labor/Safety and Health Regulations for Construction
1926.52 Noise	1926.95 Foot Protection
1926.54 Non-Ionizing Radiation	1926.100 Head Protection
1926.55 Gases, vapors, fumes, dusts, and mists	1926.101 Hearing Protection
1926.56 Illumination	1926.102 eye Protection
1926.57 Ventilation	1926.103 Respiratory Protection
1926.62 Lead	1926.1101 Asbestos
42 CFR 73	Select Agents and Toxins
10 CFR 850	Chronic Beryllium Disease Prevention Program
10 CFR 851	DOE Worker Safety and Health Program
5480.4 Change 3	Industrial Hygiene Protection, Safety and Health Protection Standards
O 440.1A	CRD - Worker Protection Management for DOE Contractor Employees
M 231.1-1 Change 2	Environment, Safety and Health Reporting Manual
P 456.1	DOE- Secretarial Policy Statement on Nanoscale Safety

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ACGIH TLVs	Threshold Limit Values for Chemical Substances and Physical Agents
ANSI Z 136.1	Safe Use of Lasers
ANSI Z 88.2	Respiratory Protection
NTP	Department of Health and Human Services, National Toxicology Program (NTP) Carcinogen- Annual Report
IARC	Intl. Agency on Research on Cancer (IARC) Monographs on Carcinogen
NFPA	National Fire Protection Association

IH Requirements Management

Job Performance Measure (JPM) Completion Certificate

Candidate's Name	Life Number:
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Practical Skill Evaluation: Demonstration of Evaluation Methodology by Oral Exam

Criteria	Qualifying Performance Standard	Unsat.	Recov.	Satisf.
Finding Requirement Changes	Demonstrates knowledge in how to periodically review appropriate sources: internet, governmental agency websites, and other resources (including personal contacts), workgroups, listservs, federal and state register publications.			
BNL Change Management Process	Demonstrates knowledge of the SBMS Office process for conducting requirement changes.			
BNL Level Documentation	Demonstrates knowledge in initiating and leading change in Subject Areas if needed.			
Site-wide Action	Demonstrates knowledge in initiating and leading general laboratory distribution of notifications of changes. Understands the process of getting entries entered into the BNL ATS or SHSD FATS.			
IH Group level policy and procedures	Demonstrates knowledge in making any necessary changes to SHSD IHG level programs or activities.			
Record keeping	Demonstrates knowledge in documenting corrective actions submitted to the SBMS Office using the <i>External Requirements Document Record of Decision Form</i> . Understands the need to send a copy of all documents generated as a result of this procedure to SBMS. Understands need to and where to maintain copies in the Program Administrator section of the Industrial Hygiene Group Leader's files.			

I accept the responsibility for performing this task as demonstrated within this JPM and the corresponding SOP.

Candidate Signature:	Date:
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I certify the candidate has satisfactorily performed each of the above listed steps and is capable of performing the task unsupervised.

Evaluator Signature:	Date:
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Periodic Regulatory Driver Survey

Date:	Review By:
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Document	Requirement Title	Source that was reviewed	Current Date that is in effect	Change Y/N
10 CFR 850	Chronic Beryllium Disease Prevention Program	<input checked="" type="checkbox"/> CFR Search		
29 CFR 1910	Labor/Occupational Safety and Health Standards	<input checked="" type="checkbox"/> CFR Search		
29 CFR 1926	Labor/Safety and Health Regulations for Construction	<input checked="" type="checkbox"/> CFR Search		
40 CFR 61 - Subpart A	National Emissions Hazardous Air Poll			
40 CFR 763	Protection of the E			
42 CFR 72	Interstate Shipment of Etiologic Agents	<input type="checkbox"/> CFR Search		
5480.4 Change 3	Industrial Hygiene Protection, Safety and Health Protection Standards	<input type="checkbox"/> DOE Web site		
M 231.1-1 Change 2	Environment, Safety and Health Reporting Manual	<input type="checkbox"/> DOE Web site		
O 440.1A	CRD - Worker Protection Management for DOE Contractor Employees	<input type="checkbox"/> DOE Web site		
N 450.7	CRD - The Safe Handling, Transfer, and Receipt of Biological Etiological Agents at Department of Energy Facilities	<input type="checkbox"/> DOE Web site		
ACGIH TLVs	Threshold Limit Values for Chemical Substances and Physical Agents	<input type="checkbox"/> ACGIH Web site		
ANSI/ASHRAE Std 62	Ventilation for Acceptable Indoor Air Quality	<input type="checkbox"/> ANSI Web site		
ANSI C95	Safety Levels with Respect to Human Exposure to Radiofrequency Electromagnetic Fields RF (200kHz - 100Ghz)	<input type="checkbox"/> ANSI Web site		
ANSI Z 136.1	Safe Use of Lasers	<input type="checkbox"/> ANSI Web site		
ANSI Z 88.2	Respiratory Protection	<input type="checkbox"/> ANSI Web site		
ANSI Z 4.1-68	Requirements for Sanitation	<input type="checkbox"/> ANSI Web site		
SCSC	Suffolk County Sanitation Code	<input type="checkbox"/> Suffolk County Web site		

Sample
 Consult the IH50700 folder in SHSD Shared Drive for most recent version.

Record of actions needed: