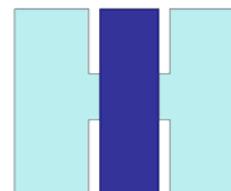


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Industrial Hygiene Group



1.0 Purpose & Scope

Purpose: The purpose of this procedure is to define specific roles, responsibilities, authorities, and accountabilities of the SHSD Industrial Hygiene (IH) group in its interaction with other BNL organizations. The goal is to clearly define the IH Groups role and the person assigned within the IH Group to lead the group's efforts in the development, implementation and coordination of effective programs towards:

- Biohazard research activities
- Bloodborne Pathogen exposure control
- Natural biohazard agents in the environment.

This document describes program elements necessary for compliance with OSHA, CDC, NIH, USDA, and DOE regulations.

Scope: This procedure defines the role of the IH Group in delivery of the Biohazard program services. This procedure provides a brief description of the service which is detailed in corresponding IH Group procedures in the series IH89 (Biohazards), IH97 (Indoor Air Quality), and IH50 (IH Programs).

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2.0 Responsibilities

- 2.1 The BNL Biohazard program and Bloodborne Pathogen program are implemented through a matrixed organization of several BNL organization units. The SHSD portion of these programs is implemented through the Industrial Hygiene Group Leader or designee who serves as the *Biohazard Program Administrator (BPA)*.
- 2.2 The SHSD person assigned as the *Biohazard Program Administrator* also serves as *SBMS Subject Matter Expert* and holds general responsibility to monitor the effectiveness of the BNL Biohazard program and the Bloodborne Pathogen Program and lead the correction of deficiencies.

3.0 Definitions none

4.0 Prerequisites none

5.0 Precautions none

6.0 Procedure (Program Elements)

- 6.1 The IH Group serves in the following roles:

Primary Role(s)
Serve as <i>Bloodborne Pathogen</i> and <i>Biohazards in Research</i> Program Administrator & SBMS Subject Matter Expert
Conduct periodic Regulatory Driver tracking (Requirements Management)
Perform periodic BNL Program Self Assessment
Prepare Standard Operating Procedures for Hazard Assessment & Exposure Monitoring
Calibrate and Maintain Exposure Monitoring Equipment
Reviews or assists in developing training material
Perform Project Design Reviews for impact on workers

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- 6.2 **Program Administration:** The IH Group Leader's designates a SHSD *Biohazard Program Administrator (BPA)*. This role will be filled by a professional Industrial Hygienist within the IH Group who has sufficient knowledge of Bloodborne Pathogen Program hazards, BNL operations, and OSHA, CDC, USDA and DOE drivers on Bloodborne Pathogens and Etiologic Agents. This individual will also serve as the Subject Matter Expert for the *Bloodborne Pathogen Programs* and *Biohazard in Research* subject areas. The BPA coordinates with other IH group members as co-SME for the *Natural Hazards in the Environment* subject area.
- 6.3 **Regulatory Driver Tracking:** The *BPA* maintains mechanisms to track the status of DOE, OSHA, ANSI, NIOSH, CDC, USDA, and ACGIH regulations and guidance to assess their impact on the BNL Program and initiates corrective action for any gaps in the BNL program resulting from changes in the reference and regulatory documents. Review of checks on the status of regulatory drivers will be formally documented on no more than a one year cycle.
- 6.4 **Periodic BNL Program Self-Assessment:** The *BPA* periodically reviews the BNL Biohazard Program to assess compliance with regulatory drivers and determine the overall effectiveness of the program. The periodic evaluation shall occur at least each 3 years and shall ensure that all program aspects are conducted to meet the requirements in the OSHA, CDC, USDA and DOE drivers. Attachment 9.1, or an equivalent, is used to document the assessment. Records of the assessment will be maintained as per the SBMS Records Management Subject Area and SHSD IH Laboratory record system IH60200.
- 6.5 **Preparation of Procedures for Hazard Assessment and Exposure Monitoring:** The IH Group develops and revises Standard Operating Procedures and Recordkeeping forms for use by the SHSD IH Group in hazard assessments and exposure monitoring. These procedures are maintained on the SHSD IHG Internet website for access by persons performing tasks covered by the documents.
- 6.6 **Calibration and Maintenance of Exposure Monitoring Equipment:** The IH Group develops and revises Standard Operating Procedure for Biohazard sampling. The IHG maintains equipment used by qualified surveyors from BNL organizations that perform exposure assessments.
- 6.7 **Reviews or assists in developing training material:** The *BPA* annually reviews the existing BNL Biohazard and Bloodborne Pathogen Program training material to assess

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compliance with regulatory drivers and determine the overall effectiveness of the classes. The *BPA* initiates corrective action for any gaps.

- 6.8 **Perform Project Design Reviews for impact on workers:** The *BPA* reviews documentation such as Experimental Reviews, Work Permits, Project Plans, Exposure Control Plans, and SOPs relating to Biohazards and Bloodborne Pathogens to assess compliance with regulatory drivers and determine the adequacy of controls measures. The *BPA* informs the document generating organizations of any needed corrective actions in writing and follow-ups to ensure adequate measures were taken to correct any deficiencies.

7.0 Implementation & training

- 7.1 The IHG qualifies SHSD personal who perform fieldwork (hazard assessment and exposure monitoring) and serves as the BPA under this program.
- 7.2 Qualification using specific Biohazard test equipment is conducted under the sampling equipment SOP in accordance with the IH50300 Training & Qualification Program. The qualification criteria for IH Group personnel to perform as a Biohazard Practitioner are listed and documented in Attachment 9.2 *IH Group Biohazard and Bloodborne Pathogen Practitioner Qualification Form*.

8.0 References

- 8.1 BNL SBMS Subject Area *Biohazard in Research*.
- 8.2 BNL SBMS Subject Area *Bloodborne Pathogen Program*.
- 8.3 BNL SBMS Subject Area *Natural Hazards in the Environment*.
- 8.4 29CFR1910.1030 OSHA Occupational Bloodborne Pathogen Program Exposure Standard including OSHA Needle-stick and other sharps Injuries – final rule – 66:5317-5325.
- 8.5 Public Law 106-430 Needlestick Safety & Prevention Act

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- 8.6 USPHS 42 – part 71 Foreign Quarantine.
- 8.7 USPHS 42 – part 71.54 Etiologic Agents, hosts, and vectors.
- 8.8 USPHS 42 CFR part 72 Interstate Shipment of Etiologic Agents.
- 8.9 USPHS 49 CFR part 173- Transportation of Etiologic agents.
- 8.10 59CFR34496 NIH Guidelines for research involving Recombinant DNA molecules.
- 8.11 Biosafety standard (required as part of 42CFR72.6) Biosafety in microbiological and Biomedical Laboratories.
- 8.12 42CFR72.6 HHS Additional Requirements for Facilities transferring or Receiving Select Agents.

9.0 Attachments

- 9.1 Annual Compliance Audit Checklist form
- 9.2 IH Group Biohazard and Bloodborne Pathogen *Practitioner Qualification Form*

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10.0 Documentation

Document Development		
Prepared By: <i>(signature/date on file)</i> Fredrick Horn 10/14//04 Industrial Hygienist	Reviewed By / Date: <i>(signature/date on file)</i> R. Selvey 04/14/05 Industrial Hygienist	Approved By / Date: <i>(signature/date on file)</i> R. Selvey 07/08/05 Industrial Hygienist Group Leader
ESH Coordinator/ Date: <i>none</i>	Work Coordinator/ Date: <i>none</i>	SHSD Manager / Date <i>none</i>
QA Representative / Date: <i>none</i>	Training Coordinator / Date: <i>none</i>	Filing Code: IH52.05
Facility Support Rep. / Date: <i>none</i>	Environ. Compliance Rep. / Date: <i>none</i>	Effective Date: 07/08/05
ISM Review - Hazard Categorization <input type="checkbox"/> High <input type="checkbox"/> Moderate <input checked="" 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: none Procedure posted on Web: Hard Copy" files updated:

Revision Control Tracking		
Purpose: <input type="checkbox"/> Temporary Change <input type="checkbox"/> Change in Scope <input type="checkbox"/> Periodic review <input 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 type="checkbox"/> none of the above		
<i>(signature/date on file)</i> SME Reviewer/Date:	Reviewer/Date:	Reviewer/Date:
Section/page and Description of change:		

Purpose: <input type="checkbox"/> Temporary Change <input type="checkbox"/> Change in Scope <input type="checkbox"/> Periodic review <input 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 type="checkbox"/> none of the above		
<i>(signature/date on file)</i> SME Reviewer/Date:	Reviewer/Date:	Reviewer/Date:
Section/page and Description of change:		

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Attachment 9.1

BNL Biohazard and Bloodborne Pathogen Self-Assessment Compliance Checklist

YEAR _____

Item	Criteria	Yes/No ⁽¹⁾
1	Have the <i>NIH, CDC, FDA, USDA, ANSI, OSHA, and ACGIH</i> standards or DOE Orders regarding Bloodborne Pathogen Program been updated during this audit period ?	
1b	If item 1 is yes, has IH SOP and BNL SBMS programs been updated to reflect the changes ?	
2	Are personnel qualification records up-to-date and the documentation properly maintained?	
3	Are records of testing maintained for future reference ?	
4	Where results of testing are maintained in a proper manner (within 30 days) ?	
5	Site Inventory of Selected Chemicals ?	
6	Notification to DOE, EPA, and NRC ?	
7	Observation of an actual test Was the test conducted in accordance with all steps and requirements in IH SOP series ? Date of observation: _____ Observed By: _____ Location of test: _____	

Sample of a minimal level of self assessment of the BNL program. Document assessment as per IH50510 and IH50520

	Name	Date
Reviewed Performed By:		
Review Approved By:		

(1) Attach any supporting documentation for the status to this record.

Recordkeeping: This record is to be kept until 75 years from the Review Approval Date.

The only official copy is on-line at the SHSD IH Group website.
Before using a printed copy, verify that it is current by checking the document issue date on the website.

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Attachment 9.2

IH Group Biohazard and Bloodborne Pathogen Practitioner Qualification Form

(see next two pages)



Safety and Health Services Division - Industrial Hygiene Group

**Biohazard & Bloodborne Pathogen
 Technical Consultant & Practitioner
 Qualification Certificate**

Candidate's Name (Print):	BNL#
Qualified By:	Date of Qualification

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

Candidate Signature:	Date:
----------------------	-------

I certify the candidate has satisfactorily performed each of the steps listed below and is capable of performing the task unsupervised. (3 year re-qualification cycle)

Evaluator Signature:	Date:
----------------------	-------

Formal Education (one or more of the following required)

- BS or MS degree course in Biology, Zoology, Microbiology, or Botany (Semester/Quarter duration)
- Vendor or University based Short Course in *Biohazards* (1 day duration)
- AIHA Professional Development Course or other organization concentrated on *Biohazards*

Formal Training Title: Provider:	Date of Class/Program
Formal Training Title: Provider:	Date of Class/Program
Formal Training Title: Provider:	Date of Class/Program

Candidate maintains JTA HP-89 Qualifications as per BTMS notifications for:

JTA HP-89	Biohazard Technical Consultant	Retraining
TQ-BBP	Web CBT: <i>Bloodborne Pathogens</i>	AS BTMS SPECIFIED
TQ-Lyme1	Web CBT: <i>Lyme and Tick-borne Disease Prevention</i>	AS BTMS SPECIFIED
HP-IHP-60500	Reporting Personnel Exposure Monitoring Results	3 yr
IH-IHP-89200	Biohazard Assessments and Inspections	3 yr

Performance Measures for Technical Consultant

Topic	Criteria	Qualification Status		
		Unsatisfactory	Recovered	Satisfactory
Hazard Analysis	Demonstrates knowledge of appropriate risks of BBP and etiologic agents.			
Sampling Equipment	Shows where equipment needed for the analysis is located, how to properly sign it out, and how to use it.			
Assessment Protocol	Understands the assessment logic necessary to appropriately select sampling locations to accurately measure worker exposure potential.			
Record forms	Shows where forms to record assessment results are located and how to correctly and completely fill them out.			
Corrective Actions	Demonstrates knowledge of techniques that can improve or eliminate hazards.			
Analysis of data	Shows how to perform the data analysis to assess potential exposure to the worker.			

Additional Requirements for Program Administrator

Program Assessment	Has adequate knowledge of the principles of evaluating the IHG program, the site's program, and line implementation of the program.			
Requirements Management	Demonstrates knowledge in tracking regulatory requirements and consensus standards on BBBP.			
Site Program Development	Demonstrates the ability to address gaps or deficiencies in the SBMS Subject Area documentation and initiate corrective actions.			
IH Group Program Development	Demonstrates the ability to address gaps or deficiencies in the IH Group SOPs and initiate corrective actions.			