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	REVISION Final rev3
INDUSTRIAL HYGIENE GROUP Standard Operating Procedure	REV. DATE 02/25/08
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Noise and Hearing
Conservation Program

1.0 Purpose & Scope

Purpose: The purpose of this procedure is to define specific roles, responsibilities, authorities, and accountabilities of the SHSD IH group and its interaction with other BNL organizations in the development, implementation and coordination of an effective Noise and Hearing Conservation (NHC) program.

This document describes program elements necessary for compliance with OSHA and DOE regulations.

Scope: This procedure defines the entire range of the role of the IH Group in delivery of NHC services. The description is at a very brief description of the service. Details of each of these elements is defined in detail in corresponding IH Group procedures in the series IH96nnn.

The scope and applicability of this SOP is limited to role of the SHSD IH Group.

2.0 Responsibilities

- 2.1 The BNL Noise and Hearing Conservation program is implemented through a matrixed organization of several BNL organization units. The SHSD portion of the program is implemented through the Industrial Hygiene Group Leader or designee who serves as the *SHSD Noise and Hearing Conservation Program Administrator*.

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2.2 The SHSD person assigned as the *SHSD Noise and Hearing Conservation Program Administrator* also serves as the *BNL NHC Administrator* and the *Subject Matter Expert* and holds general responsibility to monitor the effectiveness of the BNL NHC Program and lead the correction of deficiencies.

3.0 Definitions

Noise and Hearing Conservation Program Administrator: A person, designated by the Industrial Hygiene Group Leader, to oversee compliance with the DOE and OSHA regulations on noise and hearing conservation program for SHSD and BNL as a whole.

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 NHC Program Administration & SBMS Subject Matter Expert
Conduct periodic Regulatory Driver tracking
Perform periodic BNL Program Self Assessment
Prepare Standard Operating Procedures for Hazard Assessment & Exposure Monitoring
Conduct routine and advanced (complex) noise surveys
Investigate Standard Threshold Shift (STS) hearing loss cases reported by OMC
Calibrate and Maintain Exposure Monitoring Equipment
Maintain an Exposure Monitoring Record database
Maintain an IH Noise Job tracking system
Reviews or assists in developing training material
Perform Project Design Reviews for Noise impact on workers

6.2 **Program Administration:** The IH Group Leader's designates a SHSD NHC Program Administrator. This role is to be filled by professional Industrial Hygienist with the IH Group who has sufficient knowledge of noise hazards, BNL operations, and OSHA and

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DOE drivers on NHC. This individual also serves as the BNL NHC Administrator and BNL Subject Matter Expert for NHC.

- 6.3 **Regulatory Driver Tracking:** The NHC Administrator maintains mechanisms to track the status of DOE, OSHA, ANSI, NIOSH 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 is to be formally documented as per [IH50700](#).
- 6.4 **Periodic BNL Program Self-Assessment:** The NHC Administrator periodically reviews the BNL NHC Program to assess compliance with regulatory drivers and determine the overall effectiveness of the program. The periodic evaluation are to occur as scheduled in [IH50500](#). The evaluation ensures that all program aspects are conducted to meet the requirements in the OSHA and DOE drivers. Records of the assessment are to be maintained in the SHSD IH Laboratory record system and the ESH Directorate Document Logging system.
- 6.5 **Preparation of Procedures for Hazard Assessment and Exposure Monitoring:** The IH Group develops and revises Standard Operating Procedures and Recordkeeping forms for noise hazard assessments and exposure monitoring. These procedures are maintained on the SHSD IHG Internet website for access by all organizations performing tasks covered by the documents. The IH Group has prepared procedures describing general noise exposure assessment principles, specific instrument operation instruction, and calibration protocols and techniques.
- 6.6 **Conduct advanced (complex) noise surveys:** The IH Group maintains the expertise to conduct advanced complexity noise surveys and octave band analysis following the IH96 series Standard Operating Procedures. IH Group evaluations are made to analysis of potential employee and community noise exposure from BNL operations and obtain the data necessary for development of effective administrative and engineering controls.
- 6.7 **Investigate Standard Threshold Shift (STS) hearing loss cases reported by OMC:** The IH Group conducts formal evaluations of workplace conditions to determine if occupational sources are contributory to STS hearing losses discovered by OMC audiometric testing. A formal report is prepared and provided to OMC, the Workers Compensation Administrator, line management, and the worker investigation is to follow the procedure in [IH96175](#).
- 6.8 **Calibration and Maintenance of Exposure Monitoring Equipment:** The IH Group develops and revises Standard Operating Procedure for Noise meters and dosimeters and

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maintains the equipment in a state of readiness for use by qualified surveyors from BSA organizations that perform exposure assessments. Calibration of Portable test equipment used in this program are to be calibrated on a basis established in IH51600.

6.9 Maintenance of Exposure Monitoring Database: The IH Group has developed and maintains an electronic database that compiles information from written field survey forms and meter logged data printout and other appropriate written records. All organizations at BNL that conduct area surveys and personal dosimetry are to provide the SHSD IHG with the originals of each written record for storage in this system.

6.10 IH Exposure monitoring request tracking system: The IH Group has developed and maintains an *IH Services Job Tracking System* electronic database that identifies and tracks Noise and Hearing Conservation activities being conducted at BNL by BSA organizations. All organizations at BNL conducting work for the BSA prime contract are to provide the SHSD IHG with the notification of the request/need for the assessment or monitoring and be assigned an IH Services Job Number. (Activities of Sub-contractors monitoring their own non-BSA/Non-BNL employees are not tracked in this system.)

6.11 Project Design Review for noise impact on workers: The IH Group participates in Project Design Reviews as requested by the SHSD Safety Engineering Group. The person performing the review is to follow IH60700. The IH group reviews major construction and renovation projects and includes an analysis of potential noise exposure from the construction of and intended use of the project. Recommendations are to be made to correct noise source before construction activities are commenced.

7.0 Implementation & training

The IHG qualifies SHSD personal who perform fieldwork (hazard assessment and exposure monitoring) under this program by following documented procedures IH96200 to IH96999. Personnel document their training using the qualification form in each SHSD noise procedure in the IH96nnn series.

8.0 References

- 8.1 BNL SHSD Procedures: *IH962000, IH96250, IH 963000, IH96400, IH96401, IH96500, IH96600, and IH51600.*
- 8.2 BNL SBMS Subject Area *Noise and Hearing Conservation*
- 8.3 *29CFR1910.95 OSHA Occupational Noise Exposure Standard*

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8.4 10CFR851

8.5 ANSI S1.13-1971 Methods for the Measurement of Sound Pressure Levels

9.0 Attachments none

10.0 Documentation

Document Development and Revision Control Tracking		
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Revision Log		
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04/07/04 R. Selvey (signature/date on file) SME Reviewer/Date:	Reviewer/Date:	Reviewer/Date:
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 checked="" type="checkbox"/> none of the above Section/page and Description of change: Edited Section 7 <i>Implementation & Training</i> . Revised Attachment 9.2.		
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Section/page and Description of change: Minor text changes throughout document (marked). Deleted Attachment 9.1 in lieu of Guidance Cards prepared in 2008. Deleted Attachment 9.2 as qualification is now covered in each individual Noise SOP.		
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