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C-A OPERATIONS PROCEDURES MANUAL

14.30 C-AD/SMD OSH Management Plan for Accelerators, Experimental Areas,
Shops and/or Offices

Text Pages 2 through 5

Hand Processed Changes

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Approved: _____ *Signature on File* _____
 Collider-Accelerator Department Chairman Date

Approved: _____ *Signature on File* _____
 Superconducting Magnet Division Head Date

R. Karol

14.30 C-AD/SMD OSH Management Plan for Accelerators, Experimental Areas, Shops and/or Offices

COLLIDER-ACCELERATOR DEPARTMENT/SUPERCONDUCTING MAGNET DIVISION OSH MANAGEMENT PLAN	Completed by: <u>R. Karol</u> Date: <u>October 30, 2007</u>
<p>1. Hazards at Accelerators, Experimental Areas and/or Shops:</p> <ul style="list-style-type: none">• Ionizing Radiation• Non-Ionizing Radiation• Hazardous or Toxic Materials• Radioactive Materials• Electrical Energy• Explosive Gases and Liquids• Magnetic fields• Oxygen Deficiency• Kinetic Energy• Potential Energy• Thermal Energy• Noise• Confined Spaces• Cryogenic Temperatures• Outdoor Hazards <p>Hazards at Offices:</p> <ul style="list-style-type: none">• Housekeeping Hazards• Working Environment Hazards• Flammable or Combustible Materials• Electrical Energy• Hazardous or Toxic Materials <p>2. Department Objectives: <i>The following is prepared to meet core functions one and five of the Department of Energy's Integrated Safety Management System.</i> (See BNL FY08 Performance Evaluation and Management Plan, Appendix B, Goal 5.0 and See 2007 OSH Management Review Record of Decision for 2008)</p> <ul style="list-style-type: none">• Zero DART Incidence Rate• Zero TRC Incidence Rate• Zero notices of violations• Improve feedback by increasing manager work observations by 30%• Train >80% of staff in 2008 version of Work Planning• Meet the FY 08 ALARA Goal of 1.5 person-rem• Improve valuable material security• Zero PPE noncompliance	

3. Department Tasks the Support OSH Objectives (See [BNL FY08 Performance Evaluation and Management Plan, Appendix B, Goal 5.0](#) and See [2007 OSH Management Review Record of Decision for 2008](#))

- Complete human performance training for >80% of staff
- Conduct at least one code training course (e.g., ASME/NEC/OSHA)
- Review all FY08 critiques and occurrences specifically for organizational deficiencies and PPE noncompliance
- Conduct a field review of posted operator aids in C-A Control Rooms
- Conduct a review of records locations and ensure records are secure and retrievable
- Improve materials security program by installing security cameras at B912 and B926
- Reduce excess space by removing RF trailer near B925
- Conduct 10 industrial hygiene surveys
- Complete the arc flash calculation and labeling program
- Request, as in previous years, BNL repair Building 912 and 930 roofs
- Upgrade B912A emergency generators and remove B912A underground fuel tank
- Close out 10% of the Fire Hazards Analyses recommendations
- Monitor OSHA violations closeout status quarterly
- Conduct Exit Readiness Evaluation(ERE) of B835 warehouse and help better manage inventory of spares by transferring RF materials in B918 to B926
- Remove 10% of remaining old, unsafe power distribution components (cables, Royal boxes, etc.) in B912

4. OSH Performance Indicator(s):

- Tier I inspection results and closure of open item
- Injury/ Illness Rates
- The number of Occurrence Reports and Critiques dealing with OSH
- Completion of tasks listed in Section 10
- Quarterly Performance Indicators Report

5. Plan Description:

The OSH Management Plan is assured using the concepts of ISM through a documented program of safety reviews, risk assessments and work planning. OSH subject matter experts from the BNL Safety and Health Services Division (SHSD) serve on the C-AD safety committees. The C-AD safety review committees include the Accelerator Systems Safety Review Committee (ASSRC) and the Experimental Safety Review Committee (ESRC), which are the focal point for documenting safety issues for new or modified accelerators and experiments. The SMD's pressure and cryogenic projects undergo safety review by the BNL LESHG Pressure and Cryogenic Safety Sub Committee. Radiological issues are reviewed by the Radiation Safety Committee (RSC) and the ALARA Committee. The physical plant is inspected regularly for OSHA compliance via the Tier 1 process. See the [ESHQ Committees Web Page](#) and the [LESHG Web Page](#). It is the responsibility of the subject matter experts from SHSD to help review activities brought before the committees for implementation of OSH controls.

Day to day OSH issues and action items are addressed, as appropriate, through the work planning process documented in [C-A-OPM 2.28](#) and [C-A-OPM 2.29](#). For the SMD, work planning and

control is documented in [SMD OPM 2.12](#).

OSH issues and action items are addressed in offices through periodic ergonomic review as indicated in the Subject Area for [Occupational Ergonomics](#). Housekeeping is a direct responsibility of all employees, and each employee is held accountable to do the things necessary to implement an effective housekeeping program (see [C-A-OPM 1.7.1](#)).

The Self-Assessment (SA) program, Worker Occupational Safety and Health Committee, OSH/EMS/SA Management Review, Tier I inspections, Facility-Area and Job Risk Assessments, and the annual OSH audit are also designed to help the meet the FY08 objectives in this Plan. Tracking and trending illness/injury rates as well as on time regulatory reporting contribute towards achieving OSH objectives and targets.

It is noted that the C-A/SMD OSH management system is also intended to capture the five core-functions and 7 Guiding Principles from DOE's Integrated Safety Management System Guide, DOE P 450.4.

- Core Function 1, Define Scope of Work
- Core Function 2, Analyze Hazards
- Core Function 3, Develop/Implement Controls
- Core Function 4, Perform Work and Operation Authorization
- Core Function 5, Feedback/ Improvement
- Guiding Principle 1, Line Manager Clearly Responsible for ESH
- Guiding Principle 2, Clear ESH Roles and Responsibilities
- Guiding Principle 3, Competence Commensurate with Responsibilities
- Guiding Principle 4, Balanced Priorities
- Guiding Principle 5, Identify ESH Standards and Requirements
- Guiding Principle 6, Hazard Controls Tailored to the Work
- Guiding Principle 7, Operations Authorization

C-AD management obtains worker feedback through the WOSH Committee in reviewing the BNL FY Performance Evaluation and Management Plan, Appendix B, and the 2007 OSH Management Review ROD for FY08, along with C-AD/SMD ESSHQ Division and Managers to develop measurable OSH Target and Objectives for FY08.

6. Potential Impact(s):

- Unsafe acts could injure personnel
- Undocumented or unreported OSH events could violate DOE requirements
- Improper compliance with SBMS requirements could create hazardous work environments, which could injure workers

7. Legal and Other Requirements:

[Subject Areas](#)
[10CFR851](#)

8. Operational Controls: See [OSH Operational Controls Form](#)

9. Budget: Operating Budget and as required the BNL ADS System

10. Structure, Authorities, Responsibilities

Tasks, Person Responsible, Completion Dates

- Report DART, TRC and notice of violations rates in the Quarterly Performance Indicators memorandums (**P.Cirnigliaro, 9/30/08**)
- Improve feedback by increasing manager work observations by 30% (**E. Lessard, 9/30/08**)
- Conduct one manager work observation per month (**P. Wanderer, 9/30/08**).
- Train >80% of staff in 2008 version of Work Planning (**P.Cirnigliaro, 1/30/08**)
- Meet the FY 08 ALARA Goal of 1.5 person-rem (**R. Karol, 9/30/08**)
- Complete human performance training for >80% of staff (**J. Maraviglia, 9/30/08; R. Roberts, 9/30/08**)
- Conduct at least one code training course (e.g., ASME/NEC/OSHA) (**J. Maraviglia, 9/30/08**)
- Review all FY08 critiques and occurrences specifically for organizational deficiencies and PPE noncompliance (**R. Karol, 9/30/08**)
- Conduct a field review of posted operator aids in C-A Control Rooms (**D. Passarello, 6/1/08**)
- Conduct a review of records locations and ensure records are secure and retrievable (**D. Passarello, 8/30/08**)
- Improve materials security program by installing security cameras at B912 and B926 (**D. Passarello, 9/30/08**)
- Reduce excess space by removing RF trailer near B925 (**A. Pendzick, 6/30/08**)
- Conduct 10 industrial hygiene surveys (**P.Cirnigliaro, 9/30/08**)
- Complete the arc flash calculation and labeling program (**J. Sandberg, 9/30/08**)
- Request, as in previous years, BNL repair Building 912 and 930 roofs (**A. Pendzick, 6/30/08**)
- Upgrade B912A emergency generators and remove B912A underground fuel tank (**A. Pendzick, 9/30/08**)
- Close out 10% of the Fire Hazards Analyses recommendations (**E. Lessard, 9/30/08**)
- Monitor OSHA violations closeout status quarterly (**D. Passarello, 9/30/08**)
- Conduct Exit Readiness Evaluation(ERE) of B835 warehouse and help better manage inventory of spares by transferring RF materials in B918 to B926 (**D. Passarello, 9/30/08**)
- Remove 10% of remaining old, unsafe power distribution components (cables, Royal boxes, etc.) in B912 (**T. Nehring, 9/30/08**)
- Combine SMD Work Planning Logbook (**H. Hocker, 9/30/08**)