If you are using a printed copy of this procedure, and not the on-screen version, then you MUST make sure the dates at the bottom of the printed copy and the on-screen version match. The on-screen version of the Collider-Accelerator Department Procedure is the Official Version. Hard copies of all signed, official, C-A Operating Procedures are available by contacting the ESSHQ Procedures Coordinator, Bldg. 911A

C-A OPERATIONS PROCEDURES MANUAL

13.10.1 Independent Assessment and Nonconformance Reporting and Corrective/Preventive Action Tracking

Text Pages 2 through 8

Hand Processed Changes

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

D. Passarello

13.10.1 Independent Assessment

1. Purpose

1.1 To define the process by which the Collider-Accelerator Department (C-AD) verifies the operational implementation of the C-AD Operations Procedures Manual (OPM), the C-AD OSH Management System, C-A Environmental Management System and the BNL Institutional QA Program. This program supplements BNL's Integrated Assessment and Environmental Assessment Subject Areas.

1.2 Definitions (for general definitions reference SBMS)

1.2.1 Finding - Results of the evaluation of the collected audit evidence compared with the agreed audit criteria. Audit findings provide the basis for the audit report. While all findings of nonconformity must be documented, findings of conformity may be documented if within the agreed upon audit scope.

1.2.2 Nonconformance - An activity, attribute, or document, which fails to comply with established requirements, and may lead to a condition having an adverse effect on quality, environment, ES&H, operations, or reliability.

- Major nonconformance - A lack of an element, procedure, or a non-fulfilled requirement that puts the process/system at jeopardy, and could lead to significant impact on quality, environment, ES&H, operations, or reliability.

- Minor nonconformance - An observed lapse in a program, process, procedure, or requirement, usually single incidents, that do not have a significant impact on the quality, environment, ES&H, operations, or reliability.

- Noncompliance - Non-adherence to an applicable regulatory requirement.

- Recommendations (opportunity for improvement) - A suggested means of improving an activity or fulfilling the intent of a requirement.

2. Responsibilities

C-A QA shall assess for C-A management, the environmental, safety, security, health, quality (ESSHQ) and operational related activities within C-AD. When appropriate, a subject matter expert and/or individuals internal or external to C-A, who is independent

of the activity being audited and is familiar with the appropriate requirements will assist C-A QA in performing assessments.

3. Prerequisites

None

4. Precautions

None

5. Procedure

5.1 Schedule

5.1.1 QA shall maintain an assessment schedule. The scheduling of assessments should be flexible with the allocation of resources based on the following factors:

- Importance, status, risk, and complexity of the activity, item, or process.
- Problems encountered with the activity, or item.
- Scheduling of specific activities.
- Availability of qualified personnel.
- A review of findings reported in previous assessments.

5.1.2 Reviews performed by C-A QA that are not specified in the C-A QA Assessment Schedule are as follows:

5.1.2.1 All Enhanced Work Planning Systems within the C-A shall be reviewed at a frequency specified by the C-A Work Control Manager. As a minimum, C-A QA shall review C-A authorized work control logs for compliance to C-A-OPM 2.28, C-A-Procedure for Work Planning and Control for Operations.

5.1.2.2 Annually, QA shall review the implementation of the C-A LOTO program. This review includes:

- Interviewing responsible supervisors to ensure that they are maintaining the web based LOTO database
- Review LOTO program implementation
- Verifying that the responsible supervisors are performing their annual LOTO log review

5.1.2.3 Annually QA shall review the various logs/records maintained in the MCR, (e.g. LOTO, RS LOTO, and Temporary Procedures Log, Hand Processed Changes, and required reading records), and the C-A Gate Logs and Operator Aid Postings throughout the facility.

5.1.2.4 As specified in C-A-OPM 2.10, Maintenance Management Policy, implementation of preventative maintenance on the fire protection system and electrical equipment/system maintenance, within the C-A facility, will be reviewed by the C-A QA Office on an annual basis. Inspection of the specific electrical equipment/system, within the C-A facility, will be verified semiannually, via a review of the C-A Tier One program. These reviews shall consist of verifying:

- Adherence to documented schedules
- Completion of required documentation
- Appropriate documentation acknowledging/approving schedule slip
- Appropriateness of specified/referenced procedures

5.1.2.5 Annually, C-A QA shall review Property Protection Areas (PPA) logs at the two locations, C-A Main Control Room (MCR), for building 911B Equipment Room entry tasks, and at Cryogenic Control Room entry area, for cryogenic entry tasks. Assure that entries are in accordance with C-A OPM 2.32, and verify that both areas retain log sheets in accordance with the BNL Site Specific Records Retention Schedule. (Ref. DOE Schedule 15 ADM-18.17.1.B Fiscal).

5.1.3 C-A shall perform an annual Environmental Management System assessment. More frequent EMS assessments of specific areas or processes within the C-A complex may be appropriate, depending on the environmental importance of the activity and previous assessment results.

As part of the C-A EMS, an annual regulatory compliance assessment shall be performed.

5.1.4 C-A shall perform an annual OSH Management System assessment, per the requirements in step 5.1.4.1, in order to determine whether the OSH management system and its elements are in place, adequate, and effective in protecting the safety and health of workers and preventing incidents.

More frequent OSH assessments of specific areas or processes within the C-A complex may be appropriate, depending on the importance of the activity, process change, previous assessment results, or as determined by C-A management.

5.1.4.1 OSH audits include an evaluation of C-A's OSH management system elements or a subset of these, as appropriate and covers:

- OSH policy
- worker participation
- responsibility and accountability

- competence and training
- OSH management system documentation
- communication
- system planning, development and implementation
- prevention and control measures
- management of change
- emergency prevention, preparedness and response
- procurement
- contracting
- performance monitoring and measurement
- investigation of work-related injuries, ill health, diseases and incidents, and their impact on safety and health performance
- audit
- management review
- preventive and corrective action
- continual improvement

5.1.4.2 In addition, the following C-AD procedures, processes and programs, which form part of the OSH Management System, shall be assessed per the C-A Assessment schedule:

- monitor the achievement of specific OSH plans, established performance criteria and objectives (C-A Management Review and Self-Assessment programs)
- systematically inspect work systems, premises, plant and equipment (e.g., OPM 9.4.1, Safety Inspection Program)
- survey the working environment, including work organization (e.g., OPM 9.4.2, Self Evaluation and the C-AD Self Assessment Program)
- survey workers' health, where appropriate, through suitable medical monitoring or follow-up of workers for early detection of signs and symptoms of harm to health in order to determine the effectiveness of prevention and control measures (e.g., OPM 1.17, Hearing Conservation Program or OPM 8.24 Use of Beryllium)
- comply with applicable laws and regulations, collective agreements and other commitments on OSH to which C-AD subscribes (e.g., OPM 1.5 Electrical Safety)
- identify, report and investigate work-related injuries, ill health including monitoring of aggregate sickness absence records, diseases and incidents or other losses, such as damage to property (e.g., OPM 9.4.5, C-A Accident / Incident Investigation)

- identify, report and investigate deficient safety and health performance, and OSH management system failures (e.g., OPM 10.1, Occurrence Reporting Procedure)

5.2 Performance

5.2.1 Emphasis will be placed on process improvement and verification of sustained effectiveness of action taken to correct previous deficiencies.

Assessments shall evaluate conformance to established requirements. That is, the examination of objective evidence demonstrating that activities, procedures, instructions, and records are being properly executed and documented.

5.2.2 Assessment criteria may be derived from the requirements appearing in the QA and Operational Procedures, SBMS Subject Areas, other relevant documents (e.g. ISO 14001 and OHSAS-18001), and applicable permits (e.g. work, RWP, regulatory).

5.2.3 Before conducting an assessment, the auditor shall:

- Consult with the Associate Chair for ESSHQ or ESSHQ Division Head, in order to determine the membership of the assessment team.
- Review existing assessment documentation to verify applicability of criteria.
- Review previous assessment reports, nonconformance reports, etc., to determine if there are known problems with an activity, or additional items that should be added to the assessment criteria.
- Confer with the person responsible for the activity and determine assessment date(s), and the names and locations of the personnel who should be contacted.
- Request information, procedures, data, etc. that will facilitate the conduct of the assessment.

5.2.4 During the assessment, verify that documentation called out by procedures and program requirements are accurate and complete. All concerns shall be brought to the attention of the person responsible for the area for possible resolution or correction prior to the completion of the audit. No corrective action will be required for any deficiency satisfactorily resolved prior to the completion of the assessment. However, a record of the concern shall be included in the assessment report, and acknowledged as having been resolved.

5.2.5 Responsible personnel are to be notified and immediate corrective action taken, as appropriate, for deficiencies that will adversely affect quality, ESS&H, operations, or reliability. Interim actions may be initiated to provide needed controls while investigations and implementation of permanent corrective actions are accomplished. Follow-up assessments shall be performed to verify the effectiveness of the corrective actions.

5.3 Nonconformance Reporting and Corrective/Preventive Action Tracking

5.3.1 C-A QA shall process documentation related to non-conformances determined to have a risk level of A1 (Critical), A2 (Major), or are findings resulting from an Occupational, Health and Safety Assessment, Environmental Management System assessment, or C-A QA Independent Assessment.

5.3.2 Corrective and/or preventive actions from nonconformance reports, assessments, internal critiques, committee reports, internal or external hazard analysis or actions developed by C-AD Management shall be tracked to closure via the C-A Family Assessment Tracking System (ATS).

5.3.2.1 Major and minor nonconformance's reported in C-A internal assessments shall be tracked to closure via the C-A Assessment Tracking System (ATS).

5.3.3 The C-A ATS administrators shall apply a graded approach philosophy when reviewing/accepting action item closure submissions. At the discretion of the C-A ATS Administrator, submissions shall require:

- attaching support documentation to the ATS file, or
- identifying the location and owner of supporting documentation, or
- accepting an email notification that the action item has been adequately addressed

5.3.4 The C-A ATS Administrator shall assign "public" to the ATS Access Status for C-A ATS entries related to OHSA or EMS assessments, non-conformances determined to have an ESHQ risk level of A1(critical) or A2 (major) or as directed by C-AD Management.

5.3.5 The C-A ATS Administrator shall consult with the ATS Assessment and/or Condition owner when the action item closure submissions are not in line with program/process requirements.

6. Documentation

All assessment documentation shall comply with the requirements of the applicable SBMS Subject Areas.

6.1 A draft copy of the assessment report shall be distributed for preliminary review to those individuals directly involved in the assessment.

6.2 Assessment reports shall contain the concurrence of the C-A Department Chairman, Associate Chair for ESSHQ, ESSHQ Division Head and when appropriate the Division Head(s) of the area assessed.

Final assessment reports issued by the C-A QA Office, shall be distributed to all signatories, the person responsible for the activity that was assessed, person responsible for corrective action, their immediate supervisor(s), and appropriate support organizations as required.

6.3 Assessments without major or minor nonconformances shall be considered closed when the assessment report is issued.

6.4 Assessments with documented major, and/or minor nonconformances, are considered closed when proposed corrective/preventive actions are accepted by the assessment personnel and C-A management.

6.5 Assessments reports shall be maintained by the C-A QA Office. Retention time for assessment documentation shall per the requirements of C-A-OPM 13.4.1, Record Management.

7. References

7.1 C-A-OPM 2.10, Maintenance Management Policy

7.2 C-A-OPM 2.28 "C-A Procedure for Work Planning and Control for Operations".

7.3 C-A-OPM 2.32, "Access Controls - Building 911B, 958 and 1005 Property Protection Areas (During Facility Operation)".

7.4 C-A OPM 13.4.1, "Record Management".

7.5 SBMS Integrated Assessment.

7.8 SBMS, Environmental Assessments.

8. Attachments

None