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C-A OPERATIONS PROCEDURES MANUAL

1.11 BNL Departments and Outside Service Provider Requirements for Interaction with C-A

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

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1.11 BNL Departments and Outside Service Provider Requirements for Interaction with C-A

1. Purpose

- 1.2 This procedure provides the basic guidance for BNL Departments, Divisions or outside service providers to follow, in order to meet the requirements for working in any area of the C-A complex. For the purpose of this procedure, other BNL Departments or Divisions will be designated "Department", and the Collider-Accelerator Department will be designated "C-A".
- 1.3 This policy applies to all work performed at the C-A using personnel who are not permanently assigned to the C-A. Jobs initiated by C-A Designated Callers to Plant Engineering, or C-A requesters for outside service providers, may in some cases, be exempted from the need for a Work Permit as described herein.

2. Responsibilities

2.2 Department's Responsibilities

- 2.2.1 The Department is responsible for following this procedure and ensuring that it is followed by their employees and by contractor employees under their purview.
- 2.2.2 The minimum requirement for a Department under this procedure is a review of the work for determining the need for a Work Permit. (See [Work Permit Form](#), and [C-A-OPM-ATT 1.11.b](#) for a list of pertinent C-A personnel).
- 2.2.3 A Department must ensure that its personnel use Personnel Protective Equipment identified in the Work Permit.
- 2.2.4 A Department must stop work if requested to do so by any BNL employee in accordance with [SBMS Subject Area STOP WORK Procedure](#).

Warning:

During operating periods, Departments must recognize the role of the on-duty C-A Operations Coordinator (OC) as the decision maker regarding the safe and reliable operation of the C-A Complex. The OC is the shift supervisor for all operating personnel, and the focus for all operations related questions.

- 2.2.5 During off-hours operations, any work by Departments that might impact the operation of the C-A must be approved by the on-duty OC or CAS Watch. Departments must follow the orders (in succession) of the on-duty OC, Local Emergency Coordinator (LEC), CAS Watch, and ESH Coordinator, during an emergency situation.
- 2.2.6 In an emergency situation during regular hours or during shutdown, Departments must follow the orders (in succession) of the LEC, CAS Watch, ESH Coordinator, and ESHQ Division Head.
- 2.3 Outside Service Provider Responsibilities
 - 2.3.1 The outside service provider will conform to the applicable requirements for Departments. The C-A requester for outside services shall assure that the outside service provider be competent in required training and ESH responsibilities outlined in SBMS for the type of work to be performed.
- 2.4 C-A Responsibilities
 - 2.4.1 The C-A work requestor, or designee must review and sign the Work Permit before work can proceed.
 - 2.4.2 The ESHQ Division Head, or designee, must review and sign the Work Permit for moderate and high hazard jobs.
 - 2.4.3 The ESHQ Division Head, or designee, must make a determination regarding the need for additional signatures on the C-A Work Permit prior to starting the work.
 - 2.4.4 The ESHQ Division Head, or designee, shall designate C-A Designated Callers.
 - 2.4.5 Only qualified C-A Designated Callers may request work from Plant Engineering (see [C-A-OPM-ATT 1.11.c](#) for a list of Designated Callers). This list is forwarded to Plant Engineering upon each revision.
 - 2.4.6 Safety Inspections of construction activities shall be performed and documented by qualified service providers or qualified C-A personnel for the duration of the job.

3. Prerequisites

- 3.1 The Department or C-A requester for outside services MUST:
 - 3.1.1 ENSURE that those who work at C-A are qualified in Department training requirements needed to perform the tasks necessary for the work.
 - 3.1.2 Help ENSURE that those who work at C-A are trained in C-A site-specific training as noted in the Work Permit. Contact the C-A Training and Procedures Manager to determine the status of training.
 - 3.1.3 Help ENSURE that personnel use reliable equipment that is suitable for their particular craft.
 - 3.1.4 Help ENSURE that personnel wear appropriate Personnel Protective Equipment that is noted on the Work Permit.
 - 3.1.5 HOLD discussions with the C-A ESHQ Division Head or designee well before any construction, demolition, or similar activity such as penetrating the earth near a C-A facility.

4. Precautions

- 4.1 Hazards are potentially present at any location in the C-A complex.
- 4.2 All local, State and Federal permits, required to perform the job, are the responsibility of the Department.
- 4.3 The specific barriers and/or type of warning/access-control system in use at any C-A area MUST NOT BE DEFEATED OR MOVED WITHOUT CONTACTING THE C-A ESHQ Division Head, or designee.
- 4.4 Where there is a potential for dispersible radioactivity, the job MUST be reviewed by the C-A ESHQ Division Head, or designee, and have an RWP prior to the start of the work.
- 4.5 The following precautions are preferable for work in primary areas, BUT THEY ARE NOT REQUIRED:
 - 4.5.1 Have a minimum of 2 people.
 - 4.5.2 Have one of the two persons be a trained C-A staff member or a C-A Radiological Control Technician (RCT).

4.5.3 Have the area on C-A Controlled Access.

Warning:

Climbing over shield blocks or fences to enter a restricted area, abusing the key access system, opening a gate for an untrained person, or otherwise violating the C-A access control system is ABSOLUTELY PROHIBITED.

5. Procedure

5.1 Departments MUST sign a Memorandum of Understanding (MOU) (see [C-A-OPM-ATT 1.11.d](#) for an example) and send it to the C-A Department Chairman. The MOU must include the following:

5.1.1 The name(s) or titles(s) of the Department person(s) responsible for helping to prepare a Work Permit.

5.1.2 The name(s) or titles(s) of the Department person(s) responsible for ensuring that Department personnel meet the training requirements.

5.2 After the MOU is signed, Departments may make appropriate alternate arrangements with the ESHQ Division Head, or designee, that differ from the signed MOU.

Note:

IF work orders are initiated by C-A Designated Callers, THEN Plant Engineering staff and the C-A Designated Caller must follow procedure steps in 5.13. All other Department interactions with the C-A must follow steps 5.3 through 5.13.

5.3 Work Permits

5.3.1 Departments or C-A requester for outside service provider MUST prepare a Work Permit for all moderate or high hazard jobs. The C-A ESHQ Division Head, or designee must review, assign a Work Permit Number, and sign the Work Permit.

5.3.1.1 The C-A ESHQ Division Head, or designee, may waive the requirement for a Work Permit. If the Work Permit is not used, then the ESHQ Division Head, or designee, shall indicate this on the Department's work order, or equivalent document, and sign the work order.

5.3.2 Departments or C-A requester for outside services MUST fill out appropriate sections on the Work Permit.

- 5.3.3 If required, Departments or C-A requester for outside services are responsible for obtaining confined space permits, welding permits, digging permits, working hot permits, Radiation Work Permits or environmental permits. All required permits MUST be obtained prior to commencing work.
 - 5.3.4 All persons working on the job MUST sign the Work Permit indicating they have read and understood the requirements.
 - 5.3.5 Only qualified C-A personnel or qualified designees who request work by outside providers shall assure work performed by the outside service provider conforms with laboratory ESH requirements. Safety inspections of construction activities shall be performed and documented by qualified service providers or C-A personnel for the duration of the job. Inspection frequency shall be determined by the inspector based on the severity and frequency of actual and anticipated hazards, the contractor's performance history, and the contractor's demonstrated competency. Safety inspections shall be documented by the qualified person by the use of log books, checklists, notebooks, or other documentation that will be maintained by the qualified person.
- 5.4 Scheduling the Work
- 5.4.1 Departments MUST have all work scheduled regardless of operational status of the C-A.
- 5.5 Notifying C-A That Work Will Begin
- 5.5.1 Departments MUST notify and obtain the signature of the work requestor or the ESHQ Division Head, or designee, at the start of work at C-A.
- 5.6 Radiological Issues
- 5.6.1 Departments or C-A outside service requester MUST ensure that all objects removed from posted areas at C-A are checked for activation by a trained person before being removed. Contact the C-A Health Physics (HP) Office (x4660) for proper surveys and labels.
 - 5.6.2 The Facility Support (FS) Representative, or designee, will make a determination whether or not an RWP is required, and will direct the workers to the appropriate HP and radiation protection staff at C-A.
 - 5.6.3 Departments MUST ensure that all radioactive sources brought into C-A areas are checked and inventoried at the C-A HP Office (x4660), and comply with BNL procedure [Sealed Radioactive Source Control](#).

Warning:

Introducing radiation sources without notifying the C-A HP Office may lead to unnecessary radiation exposure. Also, the DOE requires that all newly purchased sources must be leak checked upon arrival at C-A Facilities.

- 5.7 The C-A HP staff **MUST** perform all radiological surveys in support of jobs where required. These surveys shall be posted at the work area, or entrances to the work location.
 - 5.7.1 Departments must obtain the permission of the C-A ESHQ Division Head, or designee, in order to employ non-C-A RCTs in the work.
- 5.8 Departments **MUST** seek the approval of the C-A FS Representative, or designee, in order to change the radiological posting of the work area.
- 5.9 The Department **MUST** notify the C-A ESHQ Division Head, or designee, immediately if a "Contamination Area" is created if it was not provided for in the RWP section of the C-A Work Permit.
- 5.10 Waste Generation and Removal
 - 5.10.1 Departments must ensure that radioactive waste is minimized. Packaging material, excessively long cables and wires, trash and the like, are not to be brought in or left in the C-A primary areas.
 - 5.10.2 Departments must remove and be accountable for all clean waste, radioactive waste and/or hazardous waste generated as a result of their work. Transportation of these materials must be in accordance with the SBMS Subject Areas - Transfer of Radioactive/Hazardous Waste requirements.

Note:

Temporary storage of radioactive or hazardous waste at the C-A must be in accordance with [C-A OPM's 8.20](#) and [8.20.2](#), and SBMS Subject Area requirements. Contact the C-A Environmental Coordinator for assistance.

- 5.11 Reportable Occurrences
 - 5.11.1 If the Department causes or suspects an occurrence, as defined in the subject area the Department must immediately notify the on-duty OC during running periods.

- 5.11.1.1 The Department causes or suspects an occurrence during non-

running periods, the C-A Department Chairman, or ESHQ Associate Department Chair, or C-A ESHQ Division Head, or designee, must be notified immediately.

5.12 Work Permit Close Out

5.12.1 The Department or C-A requester for outside services must comply with close-out requirements stated on the Work Permit.

5.13 Jobs for Plant Engineering Division (EP) from C-A Designated Callers

5.13.1 If a job is called into EP by C-A, then the C-A Designated Caller MUST make a determination with the C-A ESHQ Division Head, or designee, that a Work Permit is or is not required. This determination MUST be called into EP along with the work order.

5.13.2 The C-A Designated Called shall notify the respective Building Manager when requesting Plant Engineering to perform work within C-A Facility.

5.13.3 EP SHALL MARK ALL WORK ORDERS AS WORK PERMIT REQUIRED if the determination against a Work Permit is not transmitted during the call in.

5.13.4 During off hours, the C-A OC MAY suspend the requirement for a Work Permit; however, the OC or Operator MUST ensure that EP personnel are escorted by a C-A person familiar with the work area.

5.13.4.1 Alternatively, the OC may contact the C-A ESHQ Division Head, or the C-A Associate Chair for ESHQ, to suspend the requirement for a Work Permit.

6. Documentation

6.1 The C-A ESHQ Division Head, or designee, shall ensure that either the original or a copy of the Work Permit is distributed.

6.2 The C-A ESHQ Division Head, or designee, shall ensure that C-A retains the original or a copy of a Work Permit when issued.

6.3 The C-A ESHQ Division Head, or designee, shall ENSURE that open Work Permits are tracked, and an archive of completed C-A Work Permits is maintained.

- 6.4 The C-A requester for outside services shall maintain job site safety inspection documentation for the work performed by outside service providers for a period of one year after the completion of the construction project.

7. References

- 7.1 BNL ES&H Standard 1.3.6, "Work Planning and Control System".
- 7.2 BNL SBMS Subject Areas, Transfer of Radioactive/Hazardous Waste.
- 7.3 [Work Permit Form](#)
- 7.4 [SBMS Subject Area, "STOP WORK Imminent Danger Procedures"](#).
- 7.5 [C-A-OPM 8.20, "Procedure for Handling and Disposal of Hazardous Waste"](#).
- 7.6 [C-A-OPM 8.20.2, "Radioactive Waste Disposal"](#).
- 7.7 BNL [ES&H Standard 1.3.1, "Construction Safety"](#)

8. Attachments

- 8.1 [C-A-OPM-ATT 1.11.b, "Listing of Pertinent C-A Personnel"](#).
- 8.2 [C-A-OPM-ATT 1.11.c, "Listing of C-A Designated Callers"](#).
- 8.3 [C-A-OPM-ATT 1.11.d, "Example Memorandum of Understanding"](#).
- 8.4 [C-A-OPM-ATT 1.11.e "Flow Diagram for C-A-OPM 1.11.e"](#).