

*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 kept on file in the C-A ESHQ Training Office, Bldg. 911A.*

C-A OPERATIONS PROCEDURES MANUAL

ATTACHMENT

10.1.d Operator Response to Water Spills

C-A OPM Procedures in which this Attachment is used.		
10.1		

Hand Processed Changes

<u>HPC No.</u>	<u>Date</u>	<u>Page Nos.</u>	<u>Initials</u>
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Approved: _____ *Signature on File* _____
 Collider-Accelerator Department Chairman Date

E. Lessard

Operator Response to C-A Water Spills

The purpose of these checklists is to provide Operators with a set of guidelines to follow in the event of a water spill in the C-A Department. For the purpose of this procedure, the following definitions will be used:

"Small spill"

A small spill is defined as <100 gallons. A spill that causes the system pump(s) to trip off, spills directly to the ground, or leak rates outside an established baseline leak rate, are considered significant spills.

"Significant Spill"

A significant water spill is defined as ≥ 100 gallons. A spill that causes the system pump(s) to trip off, spills directly to the storm sewer, as opposed to the sanitary sewer, spills to the ground outside a building, or a leak rate outside an established baseline leak rate is also considered a "significant spill."

"Operators"

Operators are personnel in the Water Systems Group, Mechanical Services, Power Room, C-A Support Group and Main Control Room.

"Process Knowledge"

All C-A water systems are sampled for tritium and isotope content yearly. The list of systems and radiological contamination are in the radiological safety section of C-A's ESH web page under "Tritium Levels in Cooling Water". Use this process knowledge information for response to spills.

If "Significant Spill", then go to "Significant Spill" Checklist

A "Small Spill" From Any Water System Should be Acted Upon as Follows:

(If the step does not apply; write NA in the "Initial" column)

Initial

- 1) _____ Call in Water Systems Group
- 2) _____ ISOLATE the source; for example, isolate the spill from drains or doors and close off the feed water. If contact with the water is necessary call a Radiological Control Technician (RCT) (x4660 or pager 453-6113) for guidance. Use process knowledge of radiological content of water for response.
- 3) _____ Collect two 500 ml. samples in clean containers and label sample bottles with system, bldg., date. Facility Support will ensure samples are delivered to Environmental Coordinator for shipment of sample for analysis. Sample containers are available from Facility Support (x4660), or Environmental Coordinator (x7520).
- 4) _____ Barrier the spill area with caution tape.
- 5) _____ After the spill has been cleaned up or evaporates call an RCT for a smear of the spill area. The RCT will determine if the barriers can be removed.

- 6) _____ The first opportunity DURING NORMAL WORKING HOURS report the following to the C-A Department Environmental Compliance Rep (ECR), and the C-A Environmental Coordinator (x7520 or pager 4234). The ECR shall notify the SBMS Spill SME if the spill involves tritiated water above 20,000 pCi/L.

Quantity of water released _____
Location of release _____
Date of Release _____ Time of Release _____
Brief description of the incident and actions taken _____

A "Significant Spill" From Any Water Systems Should be Acted Upon as Follows:

Initial

- 1) _____ CALL in Water Systems Group.
- 2) _____ ISOLATE the source; for example, isolate the spill from floor drains or doors and close off the feed water. Use process knowledge of radiological content of water for response.
- 3) _____ COLLECT two 500 ml. samples in clean containers and label containers with system, bldg. And date. Facility Support will ensure samples are delivered to Environmental Coordinator for shipment of samples for analysis. Sample bottles are available from Facility Support (x4660) or Environmental Coordinator (x7520).
- 4a) _____ IF the spill is on the ground OUTSIDE a building and occurs DURING NORMAL WORKING HOURS, THEN contact the Environmental Compliance Representative (ECR) and the C-A Environmental Coordinator and advise them that a C-A water spill has occurred outdoors. The ECR shall in turn notify the [SBMS Spill SME](#) if the spill involves tritiated water. Report the following:

Quantity of water released _____
Location of Release _____
Date of Release _____ Time of Release _____
Brief description of the incident and actions taken _____

OR

- 4b) _____ IF the spill is to containment, and occurs DURING NORMAL WORKING HOURS, OR DURING OFF HOURS, THEN complete 4a above and report to the ECR and the C-A Environmental Coordinator (x7520 or pager 4234) at the first opportunity DURING NORMAL WORKING HOURS. The ECR shall notify the [SBMS Spill SME](#) if the spill involves tritiated water above 20,000 pCi/L.

OR

- 4c) _____ If the spill is on the ground OUTSIDE of a building, and occurs DURING OFF HOURS, THEN call Laboratory Police (x2222), and advise them that a C-A water spill has occurred OUTDOORS, and request that they notify others using the SBMS Spill Response Subject Area.Environmental Services Division using the [SBMS Spill Response Subject Area](#)
- 5) _____ INITIATE the calling procedure in [C-A-OPM 10.1](#), Section 5.1, so that the spill can be categorized as either an EMERGENCY, UNUSUAL OFF-NORMAL OCCURRENCE, or NOT A REPORTABLE OCCURRENCE, and so that appropriate notification requirements can be completed, if necessary (see [C-A-OPM 10.1](#), Section 5.4).
- 6) _____ CONTACT the Facility Support Group (x4660 or pager 6189) to determine if protective clothing is required to clean up the area or perform repair work.
- 7) _____ DETERMINE if repair work can proceed without causing further releases to the environment.
- 8) _____ IF further significant releases to the environment are not likely, THEN make necessary repairs and restore the system for operation as soon as possible.
- 9) _____ SAVE and TAG any components replaced for future inspection.