

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.e Operator Response to Smoke in C-A Primary Areas

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 Smoke in C-A Primary Areas

The purpose of this checklist is to provide Operators with a set of guidelines to follow in the event of smoke or fire in C-A primary areas. Smoke should initially be thought to have caused the dispersion of radioactive material; at least until the primary area is confirmed to be "un-contaminated" or "clean" by Health Physics. Dispersion via smoke could cause skin or clothing contamination, or create airborne radioactivity that could be inhaled. Internal radiation exposure or contamination of skin and clothing may be reportable occurrences. In most cases, potential for contamination from smoke can and should be avoided.

UPON THE REPORT OF SMOKE IN PRIMARY AREAS, YOU SHOULD COMPLETE THE FOLLOWING:

DATE: _____ TIME: _____

- 1) _____ CALL in Health Physics (x4660) and Fire Group (x2222/911) for a smoke event even if recent external radiation surveys have been performed.
- 2) _____ ISOLATE the contaminated area until HP arrives and posts the area; for example, limit access by locking gates or post a gate watch at the potentially contaminated primary area.
- 3) _____ TURN OFF beam-line elements in the area.
- 4) _____ IF roof fans were used to clear the smoke, THEN turn fans OFF when the smoke has cleared. Have HP check the fan exhaust port for contamination.
- 5) _____ COLLECT the names of persons known to have been in the potentially contaminated area. Have a qualified person check for contamination. This is a person trained as a Contamination Worker:

CONTAMINATION CHECK REQUIREMENTS

- Use a 'frisker' to check for contamination (thin-end window pancake Geiger Mueller tube) Check that the frisker is set in the fast response mode.
 - Check hands, feet, hair, and shoulders by moving the detector probe at the rate of 2inch/sec.
 - Check all items removed from the Contamination Area.
 - Consult HP if there is a question.
- 6) _____ HAVE HP check the fire or smoke area for contaminated surfaces.
 - 7) _____ IF contamination is not found, THEN MAKE necessary repairs and restore the system for operation as soon as practicable.

Note:

**100 cpm above background correlates to 5000 dpm/100cm²
assuming 10% efficiency (total contamination in 10CFR835, App. D.).**

- 8) _____ IF a person's skin or clothing is contaminated above 100 cpm above background with frisker,

THEN record the following:

Location of contamination:

Time contamination event likely occurred:

Brief description of the incident and actions taken:

- 9) _____ IF HP reports that a person's skin or clothing is contaminated above 10,000 dpm/100cm²,

<p style="text-align: center;">Note: 10 times 10CFR85, App. D, total contamination limits would be 50,000 dpm/100CM² (total contamination) or 1000 cpm above background with frisker assuming 10% efficiency.</p>
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THEN INITIATE the calling procedure in [C-A-OPM 10.1](#), Section 5.1, so that the event can be categorized, and all appropriate notification requirements are completed as necessary (see [C-A-OPM 10.1](#), Section 5.4).

- 10) _____ HAVE HP determine if protective clothing is required to clean up the area or perform the repair work. Simple precautions such as gloves, lab coats and shoe covers shall be used to prevent contamination of street clothes and the skin.

SIGNATURE: _____