

HWMA/RCRA STORAGE and TREATMENT PERMIT
for the
MATERIALS AND FUELS COMPLEX (MFC)

ATTACHMENT 6

Sections F-3 through F-5, Procedures to Prevent Hazards

EFFECTIVE DATE: OCTOBER 1, 2015

REVISION DATE: JULY 1, 2016

- 1 To mitigate effects of electrical power failures:
- 2 • Ongoing operations (such as movement of HW/MW containers and
3 treatment systems in operation) will be secured and placed in a safe
4 condition
 - 5 • Open containers of HW/MW will be closed and secured
 - 6 • Automatic valves and controls in HW/MW treatment systems will fail in
7 safe positions (as they are designed to do in case of power failures).

8 HWMA unit operations personnel complete facility shutdown operations, as
9 necessary, to place equipment and waste in a safe standby configuration.

10 **F-4(d)(1) Equipment and Power Failure at RSWF**

11 The casks, forklift, and cranes used at the RSWF are uniquely constructed or
12 purchased to perform operations at the RSWF, and, as a result, equipment failure
13 is minimized. The casks used at RSWF have very few moving parts with no
14 electrical components to fail.

15 **F-4(e) Personnel Protective Equipment [IDAPA 58.01.05.012; 40 CFR
16 270.14(b)(8)(v)]**

17 HW/MW is received at HWMA units in closed containers. HW/MW containers
18 are only opened for the removal or transfer of the HW/MW at the time of waste
19 verification, repackaging, and/or treatment. When HW/MW is exposed to the
20 atmosphere during repackaging and/or treatment, personnel are protected by
21 personnel protective equipment (PPE), as necessary.

22 **F-4(f) Releases to the Atmosphere [IDAPA 58.01.05.012; 40 CFR 270.14(b)(8)(vi)]**

23 In the event of an airborne release from a waste management unit addressed in
24 this permit, the ventilation system in the building will direct hazardous
25 constituents to the building's HEPA filter off-gas system, which minimizes
26 releases to the atmosphere.

27 At HFEF (MFC-785) the cell exhaust system draws air from contaminated areas
28 around the decon cell into the decon cell and from there into the exhaust system
29 ducts. Extensions to the cell exhaust system provide exhaust air flow from the
30 Waste Characterization Chamber and its ancillary glove boxes. Gaseous exhaust
31 then passes through at least two stages of HEPA filters. In addition, all containers
32 are maintained closed while in storage, except for adding or removing waste.

1 At RSWF (MFC-771) air emissions are prevented by the waste being sealed
2 within carbon steel liners. In addition, the liners contain containers that are also
3 sealed. The liners are either welded shut or fitted with a blind flange, as
4 applicable. The opening of waste containers is not allowed at the RSWF and
5 therefore, is not a potential cause of air emissions.

6 SCMS consists of three separate buildings referred to as MFC-793, -793C, and -
7 793G.

8 MFC-793 ventilation system consists of an exhaust fan, a smaller auxiliary
9 exhaust fan, two main HEPA filter banks, an exhaust stack, and associated
10 ductwork and dampers. The fan takes a suction from the SCMS High Bay and the
11 SMCS Low Bay through two HEPA filter banks. The fan discharges to the
12 outside through the exhaust stack. Dual banks of filters were installed to provide
13 redundancy in the event of filter failure or excessive fume loading. The
14 ventilation system draws air through the water-wash vessel and passes it through a
15 venturi scrubber and cyclonic liquid separator, a moisture separator and air heater
16 before discharge to the HEPA filters.

17 MFC-793C is a container storage building, but may also contain a containment
18 enclosure tent for opening various radiologically contaminated or mixed waste
19 containers for examination, maintenance, repackaging, or container treatment. If a
20 tent is installed in the building, it would be provided with negative pressure and
21 the ventilation system for the tent would include HEPA filtration.

22 MFC-793G is a container storage building. All containers are maintained closed
23 while in storage, except for adding or removing waste.

24 SSB (MFC-703) is a container storage building. All containers are maintained
25 closed while in storage, except for adding or removing waste.