



PRECISION MATERIALS CORPORATION

PROCEDURE 4.2 REV. 1

.0 TITLE

MODE "C" PROCEDURE

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SAFETY COMMITTEE MEETING

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PRECISION MATERIALS CORPORATION

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OBJECTIVE: To list the initiating events and response required for a Mode "C".

NOTE: MODE "C" is defined as any condition that warrants the immediate securing of normal operations and the placing of the Irradiator in a safe condition.

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INITIATING EVENTS:

.2.1 Automatic Initiation

.2.1.1 Smoke in the Irradiator

.2.1.2 High Radiation Level on Filter PRM

.2.1.3 Either ARM reads Radiation Positive and either door is not fully closed.

.2.2 Manual Initiation

.2.2.1 Loss of either the Operations Control or the Monitor Control Computers.

.2.2.2 Loss of a second ARM.

.2.2.3 Anytime an ARM reads $>10\text{mr/hr}$ and the source is down.

.2.2.4 Anytime $>10\text{mr/hr}$ is detected while doing a Radiation Check.

.2.2.5 Anytime any malfunction prevents the dropping of the source.

.2.2.6 Anytime either the DI or DO are not fully closed and the source is not down.

.2.2.7 During the loading or unloading of the source plaque or source cask.

.2.2.8 Personnel suspected of being directly exposed to an unshielded source.

.2.2.9 Anytime an event or condition occurs that in the opinion of the operator warrants the immediate shutting down of Irradiator operations. (ie. major fire outside the Irradiator).

.3 REQUIRED RESPONSE:

NOTE: The only person who is allowed to change a MODE "C" to a MODE "A" is the Radiation Safety Officer. The operator may change a MODE "C" to a MODE "B" with the consent of the Radiation Safety Officer by pressing the (B) key on the Monitor Control Keyboard.

.3.1 Response to Automatic Initiation

.3.1.1 Silence the alert by pressing the (A) key on the Monitor Control Keyboard.

.3.1.2 If the Automatic Initiation was due to smoke in the Irradiator, check the following:

.3.1.2.1 Check the source position.

.3.1.2.2 Determine that the Ventilation Fan has been turned off.

.3.1.2.3 Check that the Recirculation Solenoid Valve has repositioned.

.3.1.3 If the automatic initiation was due to a high radiation level on the Filter PRM, secure the pump if 1000 mr/hr is reached on the Filter PRM.

.3.1.4 Contact the Radiation Safety Officer.

.3.1.5 Take further action as directed by the Radiation Safety Officer or as required to place the Irradiator in a safe condition.

.3.1.6 Log the time and cause of the MODE "C" in the Operator's Log and on the Status Board.

.3.2 Response to Manual Initiation

.3.2.1 Press the (C) key on the Monitor Control Keyboard.

.3.2.2 Contact the Radiation Safety Officer.

.3.2.3 Take further action as directed by the Radiation Safety Officer or as required to place the Irradiator in a safe condition.

.3.2.4 Log the time and cause of the MODE "C" in the Operator's Log and on the Operator's Status Board.

NOTE: If the MODE "C" was due to a fire in the building but outside the Irradiator, do the following:

- a. If fire is small enough, attempt to fight the fire.
- b. If the fire is major, contact the Mine Hill Fire Department.