

**PHOENIX REGIONAL
STANDARD OPERATING PROCEDURES**

MERCURY RELEASES

M.P. 204.02

07/94-R

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PURPOSE

The purpose of this procedure is to establish and document guidelines to be used by the Phoenix Fire Department when a mercury release occurs at a commercial facility or in a residential setting, including the interior of apartments.

FACTS ABOUT MERCURY

There are three types of mercury; the two most common types are elemental and inorganic mercury.

Elemental Mercury (Hg^0): The most common sources of elemental mercury are blood pressure cuffs, oral and rectal thermometers, and in laboratories. Elemental mercury could also be found in the same processes where inorganic mercury may be used (see below).

Symptoms of initial toxic exposure to elemental mercury include fever, chills, dyspnea, and headache within several hours. Emergency care is supportive with transport to a hospital.

Inorganic Mercury (HG^+ , HG^{++}): The most common sources of inorganic mercury are scientific instruments, electrical equipment, felt making, and the manufacturing of caustic soda and disc batteries (watches).

Acute effects include, but are not limited to, burning mouth, sore throat, nausea and vomiting with severe gingivitis. Emergency care is supportive with transport to a hospital.

The third type of mercury and the least common is:

Organic Mercury (CH_3Hg): The most common sources of organic mercury are in mining, smelting, or refining operations.

Symptoms include, but are not limited to, hearing defects and loss of concentration.

MERCURY RELEASE AT COMMERCIAL FACILITY

Initial Action Required by Fire Department

1. Upon the arrival of Fire Department units, Command shall:
 - A. Contact the on-site responsible party;
 - B. Determine the amount of mercury released;
 - C. Determine the mercury source and, if possible, secure the source to prevent further mercury loss.
 - D. Determine the size of affected area;

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**AT NO TIME SHALL THE FIRE DEPARTMENT
ATTEMPT TO CLEAN UP A MERCURY RELEASE!!!**

2. Command is also responsible to:

- A. **EVACUATE** the affected area;
- B. **ISOLATE** the affected area utilizing hazard line tape;
- C. **DENY ENTRY.**
- D. Request, through Dispatch, that the Fire Prevention Haz Mat specialist and the on-duty Special Operations personnel respond.

FIRE PERSONNEL

To reduce the possibility of contamination to Fire Department personnel, **FIRE DEPARTMENT MEMBERS:**

- A. **SHALL NOT ENTER THE REPORTED SPILL AREA, UNLESS FOR RESCUE OR TREATMENT.**
Shoes, carpet, etc., are easily contaminated. Not entering the reported spill area will reduce the potential spreading of the mercury.
- B. **SHALL NOT ATTEMPT TO CLEAN UP EVEN THE SMALLEST AMOUNT OF MERCURY RELEASED OR ANY OTHER HAZARDOUS MATERIALS RELEASE.**
- C. **SHALL NOT TAKE POSSESSION OF THE MERCURY.**

EXCEPTION:

- 1. When a resident brings mercury to the fire station, personnel may take possession of the mercury.
- 2. Fire Department members shall not take possession of mercury generated from a commercial business.

- D. **SHALL NOT TRANSPORT ANY QUANTITY OF MERCURY, OR ANY OTHER HAZARDOUS MATERIALS.**

FIRE PREVENTION AND SPECIAL OPERATIONS RESPONSIBILITIES

Fire Prevention may, depending upon each situation:

- 1. Respond to the incident location to document the requirement for a contractor with the appropriate equipment to clean up the spilled Mercury and to verify that the requirement is complied with.
- 2. Shall advise the responsible party of the contractors who have the appropriate equipment and shall remain on-scene until the contractor responds to the site.
- 3. Make or verify that all appropriate notifications are made.

On-duty Special Operations Personnel may, depending upon each situation:

- 1. Respond to the incident location to verify for the Incident Commander that all safety procedures are employed.

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2. Assists the Incident Commander by verifying that the Fire Department's decontamination procedures are initiated and followed.
3. Make or verify that all appropriate notifications are made and notify the Incident Commander when completed.

RESPONSIBLE PARTY

The responsible party shall:

- A. When required, contact and employ a contractor who has the appropriate equipment to cleanup and transport the mercury for proper disposal. The Fire Department shall not make the contact for the responsible party because the Fire Department does not want to incur the costs associated with the response or cleanup by a contractor.
- B. Determine the names of persons who are known or suspected to be contaminated by mercury.
- C. Make any other contacts deemed appropriate for the particular situation.

KNOWN/SUSPECTED CONTAMINATED PERSONS

Until proven otherwise through appropriate meter readings, Command shall isolate persons who are suspected to be contaminated.

Based on the contractor's meter readings, the contractor may require:

- A. Decontamination; or
- B. Clean clothing be provided for the known/suspected contaminated persons.

KNOWN/SUSPECTED CONTAMINATED CLOTHING, SHOES, MISCELLANEOUS ITEMS

Based on test results, the contractor, not the Fire Department, shall determine when removal of contaminated items and confiscation of contaminated items may be necessary.

In the event clothing, shoes, jewelry or miscellaneous items, are removed from a person, place the items in a plastic bag, tie off, and place a name tag on the bag identifying the owner's name. **DO NOT USE BIOHAZARD BAGS** BECAUSE THE CONTRACTORS CANNOT ACCEPT IT; THERE ARE DIFFERENT FEDERALLY MANDATED DISPOSAL REQUIREMENTS THAT MUST BE COMPLIED WITH RELATING TO MERCURY AND BIOHAZARDOUS WASTE.

In addition, based on meter readings, decontamination may be required, at which time the Fire Department's decontamination procedures shall be initiated.

MERCURY RELEASE IN A RESIDENCE

The Arizona Department of Environmental Quality has determined that a mercury release that occurs in a residence, including the interior of apartments, is household hazardous waste. As a

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result, the release is exempt from cleanup requirements. This does not, however, eliminate the need for response, evaluation of the hazard, and educating the homeowner/occupant.

Note: A mercury release in common public areas such as pool-side or exit corridors at apartment complexes, condominiums, etc. would require compliance with the commercial facility section of this management procedure.

FIRE DEPARTMENT OPERATIONS PERSONNEL

When responding to the report of a mercury release in a residence, including the interior of apartments, the Fire Department shall:

1. Have the Dispatch Center page Fire Prevention and Special Operations personnel requesting response.
2. Recommend to the homeowner/occupant that no one be allowed to enter the affected area until the hazard has been evaluated.

FIRE PREVENTION PERSONNEL

Fire Prevention personnel will explain to the homeowner/occupant of the hazards associated with the release of mercury and document on a 91-63 that it is the Fire Department's recommendation that a contractor with the appropriate metering equipment be employed to clean up and remove mercury contaminated items.

Fire Prevention will submit to the homeowner/occupant, the names and phone numbers of companies who have the proper mercury testing equipment.

Fire Prevention will also offer financial options that may be available to the homeowner/occupant such as homeowners insurance.

SPECIAL OPERATIONS PERSONNEL

Special Operations personnel will assist in the evaluation of the hazards associated with the release. In addition, Special Operations will verify that the Fire Department's decontamination procedures are initiated and followed, when deemed necessary.