

**CONTINGENCY PLAN**  
**ENVIROLIGHT and DISPOSAL, INC.**  
**ST. PETERSBURG, FLORIDA**

**1.0 CONTINGENCY PLAN PURPOSE AND SCOPE**

The purpose of the **ENVIROLIGHT & DISPOSAL** Company (**E&D**) Contingency Plan is to minimize the threat to human health and the environment resulting from fires, explosions, spills, or other unplanned sudden or non-sudden releases of hazardous waste or hazardous waste constituents to air, soil, surface water, or ground water. The provisions of the Contingency Plan are to be implemented when there is a potential for or the occurrence of a fire, explosion, or release of hazardous wastes or constituents.

This document provides a description of actions that facility personnel should take to comply with and implement the contingency plan, including emergency procedures. This document identifies employees who might be involved in contingency plan activities and provides pertinent information on emergency coordination requirements. Documentation of arrangements with local police and fire departments, hospitals, contractors, and state and local emergency response teams is in Appendix A.

This Contingency Plan is to be used in conjunction with **E&D**'s Health and Safety Manual (Appendix B) to protect human health of employees, emergency response personnel, and the local community, and the environment.

Copies of this Contingency Plan are maintained in the office at this facility and have been sent to local and state agencies that may be called upon to provide emergency services. Copies have been distributed as follows:

**Local Police:** St. Petersburg Police Department

**Local Fire Department:** St. Petersburg Fire Department

**DEP:** Florida Department of Environmental Protection

**Emergency Clean-up Contractors:**

**Local/Regional/State Emergency Planning Commissions:**

## 2.0 AMENDMENT TO CONTINGENCY PLAN

The **E&D** Contingency Plan will be reviewed and amended, if necessary, whenever:

1. the facility license is revised;
2. the plan fails in an emergency;
3. the names of emergency coordinators change;
4. the list of emergency equipment changes;
5. there is any change in the operation or maintenance of the facility; or
6. there occurs any other circumstance which indicates the need for a change in the Contingency Plan.

The Emergency Coordinator is the only individual authorized to approve modifications to the Contingency Plan. The Emergency Coordinator will ensure that any modifications to the Contingency Plan are recorded in each copy of the plan, including those copies of the Contingency Plan that have been sent to off-site agencies, commissions, hospitals, or contractors.

### 3.0 EMERGENCY RESPONSE ACTION TO BE TAKEN

- A. In an actual or imminent emergency situation, the Emergency Coordinator (or the Coordinator's designee) must immediately:
1. activate internal facility alarms or communication system to notify facility personnel and initiate evacuation procedures; and
  2. notify appropriate state or local agencies with designated response roles, if their help is needed.
- B. If there is a release, fire or explosion, the Emergency Coordinator must immediately identify the character, source, amount and areal extent of released materials, to the extent practicable. He/she may do this by observation or review of facility records or manifests, and, if necessary, by chemical analyses.
- C. The Emergency Coordinator must assess possible hazards to human health or the environment. This assessment should include direct and indirect effects of the release, fire or explosion (e.g., toxic gases generated, hazardous surface runoff from water or chemical agents used to control fire and from heat-induced explosions).
- D. If the Emergency Coordinator determines that the emergency threatens human health or the environment outside the facility, he/she must report his/her findings as follows:

He/she must notify: Florida Department of Environmental Protection,

(904) 488-9314

OR

The National Response Center

1-800-424-8802

The report must include:

1. name and telephone number of reporter;
2. name and address of facility;
3. time and type of incident (i.e., release, fire or explosion);
4. name and quantity of material(s) involved, to the extent known;
5. the extent of injuries, if any; and
6. the nature of possible hazards to human health or the environment outside the facility.

- E. The Emergency Coordinator must take measures required to ensure that fires, releases and explosions do not recur or spread to other hazardous material at the facility. These measures may include shutdown of operating equipment.
- F. The Emergency Coordinator must monitor for leaks, pressure buildup, gas generation or ruptures in valves, pipes or other equipment.
- G. The Emergency Coordinator will designate an area for the storage of recovered waste.

4.0 EMERGENCY COORDINATION TO BE CONTACTED IN ORDER LISTED IN CASE OF  
EMERGENCY

Bill Norman      Business 727-526-8870  
                         HOME    813-949-8121  
                         MOBILE 813-267-8974



## 5.0 AGENCIES TO BE CONTACTED IN CASE OF EMERGENCY

### AGENCY

### TELEPHONE NUMBER

ST PETERSBURG POLICE DEPARTMENT REGIONAL 911 CENTER 727-588-4761

FIRE DEPARTMENT/AMBULANCE ST 10 911

HOSPITAL BAYFRONT MEDICAL CENTER 911

### REGULATORY AGENCIES

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION 813-470-5870

EMERGENCY MANAGEMENT DISASTER PLANNING (LEPC) 850-815-4326  
850-727-3414

NATIONAL RESPONSE CENTER 800-424-8802

CHEMTREE 800-424-9300

POISON CONTROL CENTER 800-222-1222

## **6.0 EMERGENCY EVACUATION PROCEDURES**

### **RESPONSIBILITIES:**

The Emergency Coordinator is responsible for activating the internal alarm, implementing the evacuation procedure and for sounding the "all clear" signal.

The Emergency Coordinator is responsible for directing employees and visitors to the proper exits and the assigned safe assembly areas outside. Escape routes from the facility, shown on Figure 1, identify the primary assembly areas.

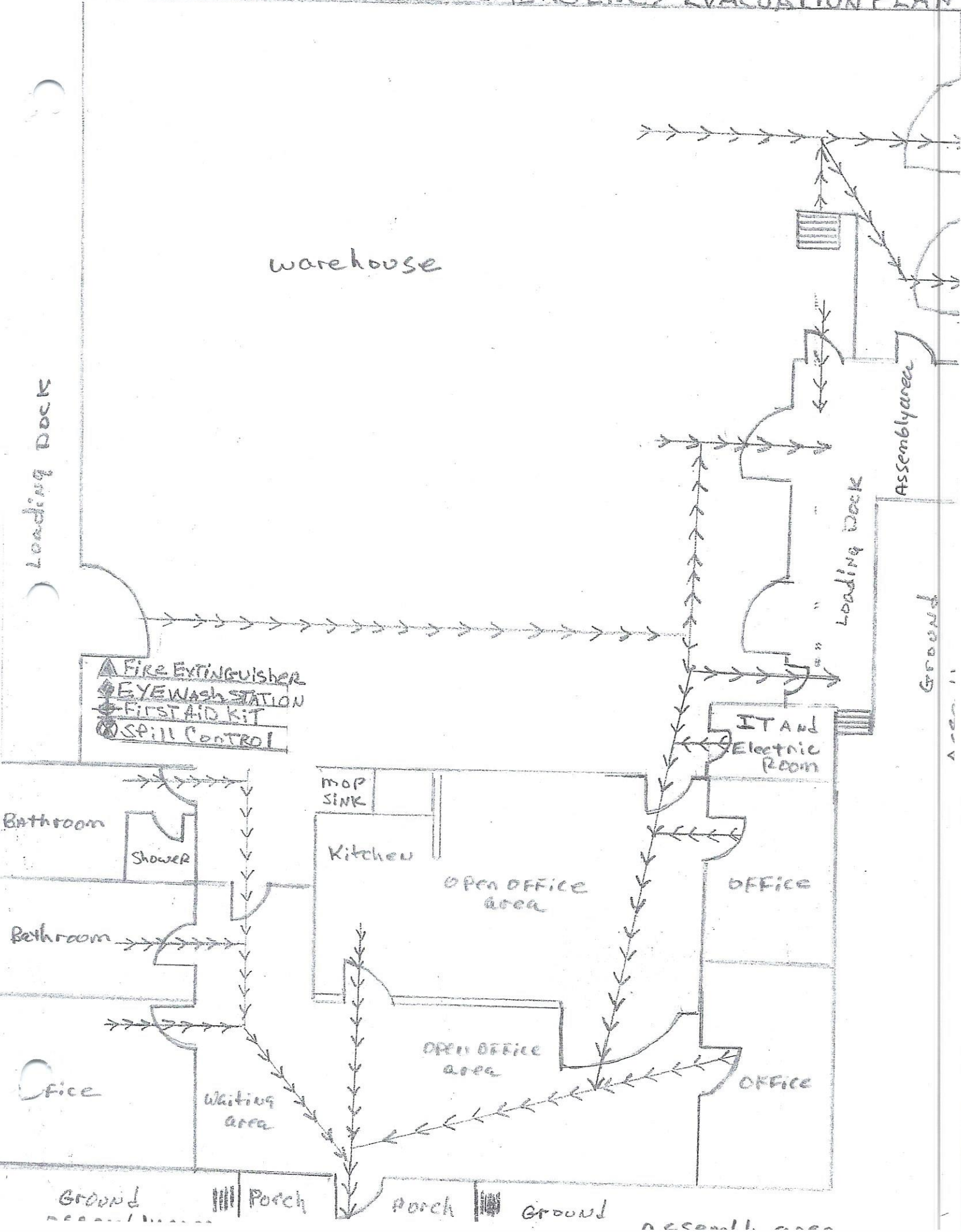
### **PROCEDURE:**

1. The Emergency Coordinator will assess conditions and will take the appropriate response action including ordering the evacuation of the facility.
2. The Emergency Coordinator will notify assistants if an evacuation may be necessary.
3. If an evacuation is necessary the internal alarm will be sounded or a verbal order given over the public address system through any telephone in the facility. Work will stop and all personnel will evacuate the building via the closest exits and report to their designated assembly areas. If smoke and fumes prevent assembly at the designated assembly area, employees will be instructed to assemble at an alternate assembly area.
4. Each employee must report to his/her assistant once outside the building.
5. Each assistant must report to the Emergency Coordinator when his employees and visitors have cleared the facility.
6. The Emergency Coordinator will notify emergency back-up services and local authorities if their assistance is required.
7. The Emergency Coordinator will sound the "all clear signal" when it is safe to re-enter the facility.
8. No one will be allowed to re-enter the facility until notified by the Emergency Coordinator.



## **EVACUATION ROUTES:**

Evacuation routes, assembly areas, and emergency response equipment locations are shown on Figure 2 -1. Upon activation of the alarm, employees shall immediately exit the building via the designated evacuation routes. After exiting the building, employees shall move quickly to their designated assembly areas. Employees shall not re-enter the building until instructed to do so by the Emergency Coordinator.



## 7.0 RESPONSE TO FIRE, EXPLOSION, OR SPILL

The following procedure will be used by the Emergency Coordinator, or his/her alternate, to assess possible hazards to human health or the environment in the event of fire, explosion, or spill.

Types of chemicals that could be involved include:

1. mercury and calcium phosphate

### 7.1 MERCURY AND CALCIUM PHOSPHATE

#### 7.2.1. FIRE

Mercury and calcium phosphate are non-flammable, exhibiting no flash points by standard laboratory test methods. They do not support combustion or contribute in any way to combustion. They have no odor. However, when exposed to flame or very hot surfaces, will produce toxic vapors. Calcium phosphate reacts with water to form acid solutions which are corrosive to metals and skin and are also a strong lung irritant if inhaled.

## Emergency Assessment

If the hazardous waste area is engulfed in a fire, the Emergency Coordinator will immediately advise that all firefighting and other emergency response personnel use supplied air breathing apparatus (i.e., SCBA/Scott Air Pak) because of the possibility of toxic gases being formed. Emergency personnel should also wear special protective clothing. A water spray should be used to keep fire-exposed containers cool until well after the fire is out.

### 7.2. 2 Explosion

The possibility exists that an explosion could occur in the hazardous waste storage area, not because of the properties of mercury or calcium phosphate, but because of heat induced decomposition of this type of material (calcium phosphate) in the event of nearby fire. Also, when exposed to common metals, an acid will decompose, producing hydrogen gas.

### 7.2.3 Spills

Spills of mercury and calcium phosphate may occur as a result of normal operating procedures and handling / transferring of lamps. Spill of mercury and calcium phosphate may result in release of vapors and irritating dust which are toxic and respiratory irritants.

### Emergency Assessment

The Emergency Coordinator should immediately assess the extent of any spill involving mercury and calcium phosphate.

Liquid mercury is a proven neuro-toxin. Mercury salts are toxic when ingested; however, liquid mercury is primarily toxic in vapor form. OSHA regulations limit the amount of mercury vapor to less than 0.1 mg per cubic meter, yet concentrations of mercury vapor of up to 20 mg/m<sup>3</sup> can go unnoticed for considerable periods of time. Hence, immediate and thorough response to mercury spills is very important.

Cleaning up liquid mercury usually involves one or two chemical processes - insolubilization and or amalgamation. Both turn liquid mercury into a non-vaporizing form. Insolubilization most often involves turning mercury into a sulfide. Amalgamation combines liquid mercury with metal powder to produce a solid, non-mobile form.

First Response. The minimum protection required for working on mercury spill cleanups involves equipment especially designed for mercury exposures including respirators, gloves, goggles and shoe covers. In some cases, full body protection may be required.

If mercury is spilled in a confined area, it should be vented immediately. Indoor heating systems should be shut off to reduce vaporization.

If a person should be contaminated with liquid mercury, he/she should be washed using alkaline soap and a paste of water and flowers of sulfur, then rinsed with water.



#### **7.2.4 Toxicity**

Skin and eye contact with mercury and calcium phosphate can result in irritation of skin and mucous membranes and possible absorption of mercury through the skin and mucous membranes. Direct contact should be avoided. Inhalation of vapors can be toxic and the principal danger of liquid mercury.

#### **Toxicity Assessment - Skin and Eye**

To prevent contact, proper protective equipment must be worn at all times (e.g., rubber gloves, chemical goggles, chemical resistant clothing).

#### **Toxicity Assessment - Vapors**

If liquid mercury and calcium phosphate are present in an enclosed area, such as a room or a building; first ventilate the area and shut off any heating systems. No one should enter the area without a respirator fitted with the appropriate cartridge.

### **8.0 RESPONSE TO POWER FAILURE**

When a power failure occurs, the emergency lighting system in the facility will come on automatically. A power outage would not effect planed evacuation routes, vital equipment operation or firefighting equipment.



## POST-INCIDENT CONTINGENCY PLAN

This procedure is to be carried out following the emergency:

- A. Treatment, storage or disposal of recovered waste, contaminated soil, surface water and other materials resulting from the emergency must be provided.
- B. The Emergency Coordinator must ensure that, in the affected area(s) of the facility:
  - 1. no waste that may be incompatible with the released material is treated, stored or disposed of until clean-up procedures are completed, and
  - 2. emergency response equipment listed in the Contingency Plan is cleaned and fit for its intended use before operations are resumed.
- C. The Florida Department of Environmental Protection and the St. Petersburg LEPC are to be notified that the facility is in compliance with regulations before any operations are resumed.
- D. The owner or operator must note in the operating record the time, date and details of incidents that require implementation of the Contingency Plan. Within seven days after the incident, he/she must submit a written report on the incident to the DEP Regional Engineer. The report must include:
  - 1. home address and telephone number of owner;
  - 2. name, address and telephone number of the facility;
  - 3. date, time and type of incident;

4. nature and quantity of material(s) involved;
5. the extent of injuries, if any;
6. an assessment of actual or potential hazards to human health or the environment, where applicable; and
7. estimated quantity and disposition of recovered material that resulted from the incident.

## **EMERGENCY PROCEDURES**

The Emergency Coordinators are trained to respond to emergencies throughout the facility.

In case of emergency, where it is feasible to remain on the premises without unduly endangering personnel trained in emergency procedures, the Emergency Coordinator will

### **FIRE with or without INJURY**

1. Notify all personnel by public address system or in person. Instruct all non-emergency trained workers to evacuate the facility.
2. Quickly evaluate situation to determine if injuries are involved.
3. Notify 911 Emergency Services of situation and request appropriate assistance, assign a worker at the facility entrance to direct emergency services.
4. If injured parties are involved, move them to safety if the threat of further injury is likely.
5. Instruct emergency trained workers to begin fire fighting activities with extinguishers, if this can be done without endangering them. Insure workers are wearing proper respirators, if mercury containing material is involved.
6. Begin and/or supervise first aid or CPR on injured parties.
7. Evacuate workers immediately at any time activities cannot be continued without endangering them.
8. Continue with and/or supervise appropriate emergency and/or first aid procedures until emergency service arrives. If the incident involves Mercury containing material inform emergency services personnel of the need to use respirators and provide them with them if necessary.
9. Notify the applicable local, state and federal agencies, as may be required by specific regulation.

### **INJURY**

1. Quickly evaluate the extent of injury
2. Notify 911 Emergency Services of all injuries other than those of a definite minor nature.

Assign a worker at the facility entrance to direct emergency.

3. Begin emergency first aid on injured parties.
4. Move injured party to safety if spilled Mercury or broken lamps are involved in the incident and movement will not further injure the worker.
5. Instruct workers to proceed with appropriate Emergency Procedures.
6. Notify the applicable local, state and federal agencies, as may be required by specific regulations.

## MERCURY SPILL

*A MERCURY SPILL IS DEFINED AS A RELEASE OF MERCURY CONTAINING MATERIAL THAT HAS THE POTENTIAL TO DO DAMAGE TO THE HEALTH OF WORKERS AND/OR THE ENVIRONMENT IF NOT CONTAINED WITHIN THE FACILITY.*

1. Quickly evaluate situation to determine if injuries exist.
2. Notify 911 Emergency Services of situation and request appropriate assistance, if injury is involved. Assign a worker at the facility entrance to direct emergency services.
3. Evacuate all personnel not wearing respirators by public address or in person.
4. IF INJURED PARTIES ARE INVOLVED, MOVE THEM TO SAFETY IF THIS CAN BE DONE WITHOUT THREAT OF FURTHER INJURY. If movement is not possible immediately place injured party on oxygen.
5. Begin and/or supervise first aid on injured parties, immediately cover any open wounds to protect from mercury exposure.
6. Instruct workers wearing respirators to immediately spray Hg absorb powder solution on spilled lamp material.
7. If injury is involved, continue with emergency first aid procedures until emergency services arrive.
8. Advise emergency services personnel of need to use respirators and provide them with them if necessary.
9. Use HEPA vacuum system to collect lamp material
10. Notify the applicable local, state and federal agencies, as required by specific regulation



# EMERGENCY EQUIPMENT

In the event of an emergency, the facility has the following emergency equipment available for protection of the personnel, facilities and environment.

**A. Fire Protection, First Aid Equipment**

- 3 - ABC 10lb Portable Extinguishers
- 1 - Industrial First Aid Kit (lab Safety model QB-10431 or equal)
- 2 - Disposable Resuscitator (Lab Safety Model QB-16792 or equal)

**B. Emergency Alarm System**

Telephone, Intercom and Building Paging System

**C. Decontamination Equipment**

- 1 - Container of Hg absorb powder.
- 1 - HEPA vacuum

**D. Personal Protection Equipment**

- 12 - Mercury Vapor / Dust Masks (3M #9908 or equal)
- 2 - Full Face Respirators (Wilson 6400/6500 series)
- 12 - Safety Glasses (Lab safety Model QB-884 or equal)
- 24 - Cloth Coveralls
- 2 - Portable Eyewash Stations (Lab Safety Model QB-9721 or equal)



# **MEASURES TO PREVENT MERCURY FROM ESCAPING INTO THE ENVIRONMENT**

## **1. Incoming Lamp Shipment Guidelines**

- A. Incoming containers are inspected for breakage, those containing broken bulbs are marked and set aside. Workers are to wear respirators when opening containers of broken lamps and collecting broken lamp material with HEPA vacuum system.
- B. Crates and other large containers are inspected for damage prior to unloading.
- C. Cartons off lamps on pallets are inspected to prevent tipping and removed. One carton at a time if necessary.

MCR

## MERCURY

Common Synonyms Quicksilver		Liquid	Silver	Odorless
		Sinks in water		
AVOID CONTACT WITH LIQUID. Keep people away. Stop discharge if possible. Isolate and remove discharged material. Notify local health and pollution control agencies.				
Fire	No flammable.			
Exposure	CALL FOR MEDICAL AID LIQUID Effects of exposure may be delayed.			
Water Pollution	HARMFUL TO AQUATIC LIFE IN VERY LOW CONCENTRATIONS. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.			
1. RESPONSE TO DISCHARGE  See Response Methods Handbook: CG 446.4)  Should be removed. Chemical and physical treatment.		2. LABELS  No hazard label required by Code of Federal Regulations.		
3. CHEMICAL DESIGNATIONS  3.1 Synonyms: Quicksilver. 3.2 Coast Guard Compatibility Classification: Not applicable. 3.3 Chemical Formula: Hg. 3.4 IMCO/United Nations Numerical Designation: Not listed.		4. OBSERVABLE CHARACTERISTICS  4.1 Physical State (as shipped): Liquid. 4.2 Color: Silver. 4.3 Odor: None.		
5. HEALTH HAZARDS  5.1 Personal Protective Equipment: Avoid contact of liquid with skin. For vapor use chemical cartridge (Hopcalite) respirator. 5.2 Symptoms Following Exposure: No immediate symptoms. As poisoning becomes established, slight muscular tremor, loss of appetite, nausea, and diarrhea are observed. Psychic, kidney and cardiovascular disturbances may occur. 5.3 Treatment for Exposure: Consult a doctor. 5.4 Toxicity by Inhalation (Threshold Limit Value): 0.05 ng/m <sup>3</sup> . 5.5 Short-Term Inhalation Limits: Data not available. 5.6 Toxicity by Ingestion: No immediate toxicity. 5.7 Late Toxicity: Development of mercury poisoning. 5.8 Vapor (Gas) Irritant Characteristics: None. 5.9 Liquid or Solid Irritant Characteristics: None. 5.10 Odor Threshold: Not pertinent.				

<b>6. FIRE HAZARDS</b>		<b>8. WATER POLLUTION</b>	
6.1	<b>Flash Point:</b> Not flammable	8.1	<b>Aquatic Toxicity:</b> 0.5-1 ppm/48 hr/cragus ardiom/TL <sub>m</sub> /fresh water 0.29 ppm/48 hr/marine fish/TL <sub>m</sub> /salt water
6.2	<b>Flammable Limits in Air:</b> Not flammable	8.2	<b>Waterfowl Toxicity:</b> Data not available
6.3	<b>Fire Extinguishing Agents:</b> Not pertinent	8.3	<b>Biological Oxygen Demand (BOD):</b> None
6.4	<b>Fire Extinguishing Agents Not to be Used:</b> Not pertinent	8.4	<b>Food Chain Concentration Potential:</b> Mercury concentrates in liver and kidneys of ducks and geese to levels above FDA limit of 0.5 ppm. Muscle tissue usually well below the limit.
6.5	<b>Special Hazards of Combustion Products:</b> Not pertinent	<b>9. SELECTED MANUFACTURERS</b>	
6.6	<b>Behavior in Fire:</b> Not pertinent	1	Belmont Smelting and Refining Works, Inc. 330 Belmont Ave. Brooklyn, N.Y. 11267
6.7	<b>Ignition Temperature:</b> Not flammable	2	Engelhard Minerals and Chemical Corp. Philipp Bros. Division 399 Park Ave. New York, N.Y. 10017
6.8	<b>Electrical Hazard:</b> Not pertinent	3	NL Industries Goldsmith Division 900 W. 18th St. Chicago, Ill. 60608
6.9	<b>Burning Rate:</b> Not flammable	<b>10. SHIPPING INFORMATION</b>	
<b>7. CHEMICAL REACTIVITY</b>		10.1	<b>Grades or Purity:</b> Pure
7.1	<b>Reactivity with Water:</b> No reaction	10.2	<b>Storage Temperature:</b> Ambient
7.2	<b>Reactivity with Common Materials:</b> No reaction	10.3	<b>Inert Atmosphere:</b> No requirement
7.3	<b>Stability During Transport:</b> Stable	10.4	<b>Venting:</b> Open
7.4	<b>Neutralizing Agents for Acids and Caustics:</b> Not pertinent	<b>11. HAZARD ASSESSMENT CODE</b>	
7.5	<b>Polymerization:</b> Not pertinent	(See Hazard Assessment Handbook: CG 446.3)	
7.6	<b>Inhibitor of Polymerization:</b> Not pertinent	A-X	
<b>12. HAZARD CLASSIFICATIONS</b>		<b>13. PHYSICAL AND CHEMICAL PROPERTIES</b>	
12.1	<b>Code of Federal Regulations:</b> ORM-B	13.1	<b>Physical State at 15°C and 1 atm:</b> Liquid
12.2	<b>NAS Hazard Rating for Bulk Water Transportation:</b> Not listed	13.2	<b>Molecular Weight:</b> 200.59
12.3	<b>NFPA Hazard Classifications:</b> Not listed	13.3	<b>Boiling Point at 1 atm:</b> 675°F = 357°C = 630°K
		13.4	<b>Freezing Point:</b> -38.9°F = -38.9°C = 234.1°K
		13.5	<b>Critical Temperature:</b> 766°F = 402°C = 673°K
		13.6	<b>Critical Pressure:</b> 33,300 psia = 1537 atm = 160.8 MN/m <sup>2</sup>
		13.7	<b>Specific Gravity:</b> 13.55 at 20°C (liquid)
		13.8	<b>Liquid Surface Tension:</b> 470 dynes/cm = 0.470 N/m at 20°C
		13.9	<b>Liquid-Water Interfacial Tension:</b> 375 dynes/cm = 0.375 N/m at 20°C
		13.10	<b>Vapor (Gas) Specific Gravity:</b> Not pertinent
		13.11	<b>Ratio of Specific Heats of Vapor (Gas):</b> Not pertinent
		13.12	<b>Latent Heat of Vaporization:</b> Not pertinent
		13.13	<b>Heat of Combustion:</b> Not pertinent
		13.14	<b>Heat of Decomposition:</b> Not pertinent
		13.15	<b>Heat of Solution:</b> Not pertinent
		13.16	<b>Heat of Polymerization:</b> Not pertinent
<b>NOTES</b>			

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CAL

## CALCIUM PHOSPHATE

Common Synonyms MCP Monocalcium phosphate monohydrate Calcium biphosphate DCP Dicalcium phosphate Calcium pyrophosphate	Solid	White	Odorless
Stop discharge if possible. Keep people away. Avoid contact with solid and dust. Isolate and remove discharged material. Notify local health and pollution control agencies			
Fire	Not flammable.		
Exposure	CALL FOR MEDICAL AID  DUST Irritating to eyes, nose and throat. If inhaled will cause coughing or difficult breathing. If in eyes, hold eyelids open and flush with plenty of water. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen.  SOLID Irritating to skin and eyes. If swallowed will cause nausea and vomiting. Remove contaminated clothing and shoes. Flush affected areas with plenty of water. IF IN EYES, hold eyelids open and flush with plenty of water. IF SWALLOWED and victim is CONSCIOUS, have victim drink water or milk and have victim induce vomiting. IF SWALLOWED and victim is UNCONSCIOUS OR HAVING CONVULSIONS, do nothing except keep victim warm.		
Water Pollution	Effect of low concentrations on aquatic life is unknown. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.		
1. RESPONSE TO DISCHARGE  (See Response Methods Handbook, CG 440-1)  Disperse and flush		2. LABELS  No hazard label required by Code of Federal Regulations	
3. CHEMICAL DESIGNATIONS  3.1 Synonyms: (a) MCP Monocalcium phosphate monohydrate; Calcium phosphate monobasic monohydrate; Acid calcium phosphate; calcium superphosphate; Calcium biphosphate. Primary calcium phosphate (b) DCP Dicalcium phosphate (anhydrous or dihydrate); Dibasic calcium phosphate; Calcium monohydrogen phosphate; Secondary calcium phosphate (c) T.C.P. Calcium  <i>(Continued on page 4)</i>		4. OBSERVABLE CHARACTERISTICS  4.1 Physical State (as shipped): Solid 4.2 Color: White 4.3 Odor: None	
5. HEALTH HAZARDS  5.1 <b>Personal Protective Equipment:</b> Dust mask, goggles, and gloves 5.2 <b>Symptoms Following Exposure:</b> Inhalation of MCP or DCP may cause irritation of upper respiratory tract; prolonged inhalation of concentrated pyrophosphate may cause a deposit of T.C.P. in the lungs. Ingestion of large quantities of any form of calcium phosphate may cause nausea, vomiting, cramps, and diarrhea. MCP may also be corrosive to membranes of mouth, throat, and gastrointestinal tract. Local irritation of the eyes may result from contact with any of these phosphates; prolonged or repeated exposure to MCP may lead to chronic conjunctivitis. Contact with skin by MCP may cause local irritation or chronic dermatitis; prolonged or repeated contact with concentrated aqueous slurries of DCP may cause local irritation. 5.3 <b>Treatment for Exposure:</b> <b>INHALATION:</b> move to clean air; see physician in case of persistent coughing, expectoration, chest pain, or shortness of breath. <b>INGESTION:</b> get medical attention quickly; induce vomiting by giving large amounts of water or warm salty water, or by tickling back of patient's throat; continue until vomitus is clear; follow with milk, eggs, or olive oil to soothe stomach. <b>EYES:</b> immediately flush with large quantities of running water for at least 15 min; holding eyelids apart to insure thorough flushing of eyes and lids; do not attempt to neutralize with chemical agents; get medical attention quickly; if physician is not available, continue irrigation for another 15 min. <b>SKIN:</b> immediately flush with water; remove contaminated clothing under shower; do not attempt to neutralize with chemical agent; get medical attention for persistent irritation. 5.4 <b>Toxicity by Inhalation (Threshold Limit Value):</b> Data not available 5.5 <b>Short-Term Inhalation Limits:</b> Data not available 5.6 <b>Toxicity by Ingestion:</b> Grade 0, LD <sub>50</sub> > 15g/kg			

<b>6. FIRE HAZARDS</b> 6.1 <b>Flash Point:</b> Not flammable. 6.2 <b>Flammable Limits in Air:</b> Not flammable. 6.3 <b>Fire Extinguishing Agents:</b> Not pertinent. 6.4 <b>Fire Extinguishing Agents Not to be Used:</b> Not pertinent. 6.5 <b>Special Hazards of Combustion Products:</b>  6.6 <b>Behavior in Fire:</b> 6.7 <b>Ignition Temperature:</b> Not pertinent. 6.8 <b>Electrical Hazard:</b> Not pertinent. 6.9 <b>Burning Rate:</b> Not pertinent.	<b>8. WATER POLLUTION</b> 8.1 <b>Aquatic Toxicity:</b> Data not available. 8.2 <b>Waterfowl Toxicity:</b> Data not available. 8.3 <b>Biological Oxygen Demand (BOD):</b> None. 8.4 <b>Food Chain Concentration Potential:</b> None.
<b>7. CHEMICAL REACTIVITY</b> 7.1 <b>Reactivity with Water:</b> No reaction. 7.2 <b>Reactivity with Common Materials:</b> Some calcium phosphates form acid solutions in water. These may attack metals with formation of flammable hydrogen gas which may collect in enclosed spaces. 7.3 <b>Stability During Transport:</b> Stable. 7.4 <b>Neutralizing Agents for Acids and Caustics:</b> Flush with water. 7.5 <b>Polymerization:</b> Not pertinent. 7.6 <b>Inhibitor of Polymerization:</b> Not pertinent.	<b>9. SELECTED MANUFACTURERS</b> 1. Stauffer Chemical Co. Industrial Chemical Division Westport, Conn. 06880 2. Madisonkradt Chemical Works 223 Westside Avenue P.O. Box 384 Jersey City, N.J. 07303 3. Monsanto Company 800 North Lindbergh Blvd. St. Louis, Mo. 63166
<b>11. HAZARD ASSESSMENT CODE</b> <small>(See Hazard Assessment Handbook, CG 440-3)</small> SS (MCP) P1 (DCP, calcium pyrophosphate)	<b>10. SHIPPING INFORMATION</b> 10.1 <b>Grade or Purity:</b> NE, USP Dehydrated Reagent 10.2 <b>Storage Temperature:</b> Ambient. 10.3 <b>Inert Atmosphere:</b> No requirement. 10.4 <b>Venting:</b> Open.
<b>12. HAZARD CLASSIFICATIONS</b> 12.1 <b>Code of Federal Regulations:</b> Not listed. 12.2 <b>NAS Hazard Rating for Bulk Water Transportation:</b> Not listed. 12.3 <b>NFPA Hazard Classifications:</b> Not listed.	<b>13. PHYSICAL AND CHEMICAL PROPERTIES</b> 13.1 <b>Physical State at 15°C and 1 atm:</b> Solid. 13.2 <b>Molecular Weight:</b> Monocalcium phosphate, 252.16; Dicalcium phosphate, 136.06; Calcium pyrophosphate, 254. 13.3 <b>Boiling Point at 1 atm:</b> Not pertinent (decomposes). 13.4 <b>Freezing Point:</b> Not pertinent. 13.5 <b>Critical Temperature:</b> Not pertinent. 13.6 <b>Critical Pressure:</b> Not pertinent. 13.7 <b>Specific Gravity:</b> 2.3 at 20°C (solid). 13.8 <b>Liquid Surface Tension:</b> Not pertinent. 13.9 <b>Liquid-Water Interfacial Tension:</b> Not pertinent. 13.10 <b>Vapor (Gas) Specific Gravity:</b> Not pertinent. 13.11 <b>Ratio of Specific Heats of Vapor (Gas):</b> Not pertinent. 13.12 <b>Latent Heat of Vaporization:</b> Not pertinent. 13.13 <b>Heat of Combustion:</b> Not pertinent. 13.14 <b>Heat of Decomposition:</b> Not pertinent. 13.15 <b>Heat of Solution:</b> Not pertinent. 13.16 <b>Heat of Polymerization:</b> Not pertinent.
<b>3. CHEMICAL DESIGNATIONS (Cont'd.)</b> phosphate tribasic (d) Calcium pyrophosphate. 3.2 <b>Coast Guard Compatibility Classification:</b> Not listed. 3.3 <b>Chemical Formula:</b> (a) CaH <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> · H <sub>2</sub> O (b) CaHPO <sub>4</sub> or CaH <sub>2</sub> P <sub>2</sub> O <sub>7</sub> · 2H <sub>2</sub> O (c) Ca <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> (d) Ca <sub>2</sub> P <sub>2</sub> O <sub>7</sub> . 3.4 <b>IMCO/United Nations Numerical Designation:</b> Not listed.	<b>5. HEALTH HAZARDS (Cont'd.)</b> 5.7 <b>Late Toxicity:</b> None. 5.8 <b>Vapor (Gas) Irritant Characteristics:</b> Data not available. 5.9 <b>Liquid or Solid Irritant Characteristics:</b> Data not available. 5.10 <b>Odor Threshold:</b> Tribasic is odorless.



Collecting, Processing & Recycling

# UNIVERSAL WASTE

Employee/Contractor  
Acknowledgment  
of Training

Signature(s) below are acknowledgment that on (date) 2/22/22  
these individuals participated in a training session at the (location name) Enviro Light and Disposal, INC.  
(address) 3300 28th St. North, ST. Petersburg, FL 33713  
given by (print trainer's name) Bill Norman  
(print trainer's title) President

This training session presented information on Universal Waste. During the session I viewed the visual multimedia program, *Collecting, Processing and Recycling Universal Waste*. My signature below affirms that I was given adequate time to ask questions about my particular job activities and how I can best conduct these activities in compliance with Universal Waste guidelines.

PRINT NAME HERE

SIGNATURE HERE

Jackie Daniels

Stephen Norman

Phylisha Monroe

Alice Hernandez-Norman

Jackie Daniels

Stephen Norman

Alice Hernandez-Norman