RCRA Contingency Plan – Hazardous Waste Accumulation Area

Approved: May 7, 2015
Reviewed: April 23, 2018
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1. **SCOPE**

This plan covers RCRA hazardous wastes stored at Illinois Institute of Technology’s ("IIT") hazardous waste accumulation area (the “Facility”). This plan is meant to be a guidance document for emergency responders and IIT personnel who enter the Facility in daily routines or emergency situations.

2. **GENERAL FACILITY INFORMATION**

The Facility is located at 3105 S Federal Street, Chicago, IL 60616. It consists of approximately 0.5 square miles, is located on the University’s main campus and provides for less than 90-day drum storage of hazardous waste. Appendix B provides the location of the Facility. Hazardous wastes generated from the University’s research and instructional activities include materials that are corrosive, ignitable, and reactive and/or have toxic characteristics, as well as certain identified waste materials. The University is permitted as a Large Quantity Generator. Hazardous waste is combined in drums or left in laboratory waste containers and packed in secondary containment padded with vermiculite or other filler material. It is intended that materials deposited in the Hazardous Waste Material Accumulation Area will remain there for less than 90 days.

3. **EMERGENCY COORDINATOR**

In the event of an emergency situation at the Facility, the Emergency Coordinator is responsible for the incident until it is relinquished to another federal, state or local emergency authority agency. The Emergency Coordinator will work to evacuate the facility until the arrival of the Chicago Fire Department ("CFD"). Upon arrival, CFD will take over the evacuation, with the assistance of IIT Public Safety. The CFD is responsible for alerting building occupants of an emergency, keeping anyone from entering the building, and determining when or if the building is safe to re-enter.

The Emergency Coordinator is familiar with all aspects of IIT’s Fire & Life Safety Manual and is available to assist in all emergencies that may occur at the Facility. In addition, the Emergency Coordinator will be responsible for the following:

- Knowing the entire building layout and the various escape routes.
- Knowing the location of and how to operate a fire extinguisher.
- Knowing hazardous areas to be avoided during an evacuation.
- Maintaining order and preventing panic during an evacuation.
- Providing information, if known, to IIT Public Safety and CFD regarding the nature and the extent of the emergency.
- Providing information on the possible hazards to human health, or the environment outside the Facility.
- Assuming responsibility for notifying appropriate support and regulatory agencies concerning the situation.
• Providing assistance for disabled individuals, if necessary, during an evacuation.
• Directing occupants to evacuate the building and proceed to the designated safety area.
• Keeping people from returning to the building before the “all clear” signal.

The Emergency Coordinator is expected to participate in Life Safety training and evacuation drills, attend Life Safety meetings, and distribute Life Safety education information as required.

Emergency Coordinators

Primary: Kevin Gallagher, Director, Maintenance Management, (312) 567-8992
Secondary: Bruce Watts, Vice President, Facilities and Public Safety, (312) 567-3253

The Emergency Coordinator has the authority to expend funds and recruit employees to implement the Contingency Plan.

4. PURPOSE

This plan is designed to provide guidance for responders to an emergency at the Hazardous Waste Accumulation Area. It will provide a process for evacuating people from danger, protecting assets and property, and restoring operations to normal as quickly as possible.

The purpose of this document is to provide basic procedures for dealing with chemical emergencies in the Hazardous Waste Accumulation Area. This Contingency Plan shall be implemented by the Primary or Secondary Emergency Coordinator for emergencies involving the Hazardous Waste Storage Area.

5. IDENTIFICATION OF HAZARDOUS MATERIALS

The type and quantity of hazardous materials present at the Facility may vary from time to time. Quantities and identification are available through the IIT’s Department of Environmental Health and Safety or Heritage Environmental, the University’s hazardous waste disposal contractor. The identity and quantity are printed on the Heritage Lab Pack Contents forms. No radiological or biological hazards are stored in the Hazardous Waste Accumulation Area.

6. HAZARD ASSESSMENT

A hazard assessment will be performed with reference to DOT’s Emergency Response Guidebook and Safety Data Sheets on the hazards present. When an emergency or perceived emergency occurs at the Facility, the first response should be to evacuate the building. Once the building is evacuated and local emergency response has been called, Public Safety will contact the Emergency Coordinator. The Emergency Coordinator will contact IIT’s Director of Environmental Health and Safety (“DEHS”). The DEHS will determine if other local, state and/or federal authorities need to be contacted, and will assist in performing the hazard assessment. In the event that the DEHS is unavailable, the Emergency Coordinator will act as the alternate.
7. **CONTROL PROCEDURES**

In the event of a fire, explosion, or release of hazardous waste to air, land, or water, the appropriate federal, state and local authorities will be notified by the Emergency Coordinator and/or the DEHS. This person will also notify IIT’s hazardous waste contractor for assistance in containment and clean-up. Where possible, hazardous wastes will be absorbed and dammed so that they are contained using items such as pigs, vermiculite, and other absorbent material until the hazardous waste contractor arrives on site. Chemicals that can neutralize the hazardous wastes may also be added. The following actions will be taken to prevent the reoccurrence or spread of fires, explosions, or releases during an emergency:

- All processes will be shut down by the person performing the process.
- Released waste will be collected, contained and treated only by people with OSHA Hazwoper training.
- If possible to do so in a safe manner, and if the person has OSHA Hazwoper training, containers will be removed and isolated.
- Fire doors will be closed by people evacuating the building.
- Fire extinguishers will be used if the person is trained and the fire is minor.

8. **HAZARDOUS WASTE SPILLS**

Emergency Chemical Spills can only be cleaned up by people with the proper Hazwoper training. If this is an incidental spill, meaning it is not a threat to safety and health and it can be handled by one person, the section for controlled spill may be followed.

Be prepared:

- Ensure spill control material is available in every area where chemicals are used or stored.
- Maintain appropriate personal protective clothing and equipment in the area when chemicals are in use or storage.

In the event of an incidental spill:

- Ensure your own personal health and safety.
- Clear out all unprotected personnel from the area.
- Remove any items, which may pose a hazard if contacted by the spilled material (e.g., electrical equipment, reactive chemicals).
- Contain the spill with vermiculite; spill pillows, or other appropriate absorbent, IF you are equipped with the proper personal protective clothing and equipment.
- Decontaminate the spilled material if appropriate.
- Collect the contaminated spill control material and all contaminated protective clothing and equipment into a plastic bag.
- Label the bag as hazardous waste and move to a safe location.
• Call the Facilities Department at (312) 567-3320, if you require assistance in containing the spill.

In the event of an emergency spill:

• Ensure your own personal health and safety.
• Clear out all unprotected personnel from the area.
• Dial 911 and (312) 808-6363 to inform Public Safety of the spill.
• Give the Public Safety officer pertinent information: the nature and location of the spill, any injuries that occurred and whether an evacuation of the building is necessary.
• Evacuate the building in an orderly manner if required.

9. **MEDICAL EMERGENCIES**

The Facility: 911 and (312) 808-6363

In the event of such an occurrence, anyone present should immediately call the IIT Public Safety Department and 911 and advise the dispatcher of the nature of the emergency. IIT Public Safety will summon CFD paramedics through a prearranged plan that assures the paramedics' most rapid response to the location of the emergency.

IIT Public Safety will direct the CFD paramedics to the proper location. A security officer will meet and direct the paramedics to an awaiting elevator and take them to the floor and location of the emergency.

• Remove the injured/ill individual(s) from any nearby hazards (e.g., broken windows, spilled chemicals).
• Dial 911 and (312) 808-6363 and inform the IIT Public Safety Officer of the medical emergency and give him or her the following information:
  o The nature of the injury/illness.
  o The location of the injured/ill individual(s).
  o Other relevant information (e.g., the presence of a fire or an uncontrolled chemical spill, the need for a building evacuation).
  o Your name and company.
  o The phone number you are calling from.
• If possible, notify the Department of Environmental Health and Safety of the emergency.
• Remain with the individual until medical assistance arrives.

10. **TORNADOS**

In the event of a TORNADO WARNING the following will occur:

• City warning alarm will be activated.
• Evacuate the building, closing the doors behind you.
• If present the Emergency Response Coordinator or the DEHS should direct fellow employees, visitors, and anyone else in the building toward a designated shelter.
• Protect yourself by placing your head close to your knees and covering your neck with your hands.
• Remain in the designated areas until an “all clear” announcement has been made by a member of the ERT, Public Safety, or other emergency official.
• Once the “all clear” has been announced and everyone has returned to their work station or other designated area, ERT members should assist IIT Public Safety/Campus Emergency Operations Team in accounting for all staff, faculty and students.
• If anyone has been injured, ERT members should assist where possible and call emergency numbers provided in this manual for further assistance.
• If any portion of the building has been damaged, notify the IIT Facilities Department immediately.

11. OTHER EMERGENCIES

When an unusual emergency situation arises--explosions, natural disasters, or power failure--the IIT Emergency Response System must be initiated by occupants of the facility.

• Ensure your own safety and the safety of those around you by proceeding to a secure location. For example, during a tornado or high wind situation, move away from windows/outer offices.
• Dial 911 and (312) 808-6363 and inform the IIT Public Safety Officer of the emergency.
  o Tell the IIT Public Safety Officer the nature and location of the emergency.
  o Inform the IIT Public Safety Officer of any injuries requiring immediate medical assistance.
  o Tell the IIT Public Safety Officer if a building evacuation is necessary (e.g., if there has been explosion with an uncontrolled chemical release).
  o Tell the IIT Public Safety Officer your name and company and the phone number you are calling from.
• Inform the Emergency Coordinator of the situation.
• Listen for instructions from the communication system or the monitor.
• Evacuate in an orderly manner.

12. **FIRE**

There is always a possibility that a fire could break out, and the most likely cause of a fire would be electrical or chemical. Fire prevention practices at IIT are designed to prevent such fires. It is the responsibility of each individual to learn to recognize fire hazards and how they can prevent fires.

Flammable Chemicals - all flammable liquids stored must be stored in Department of Transportation (DOT) approved containers or cabinets. All combustible materials must be stored away from potential ignition sources. All containers must be kept closed at all times except when adding or removing waste. All incompatible waste must be separated. Smoking or open flames are not permitted in areas where flammable or combustible materials are stored or used. Ignitable material will be grounded to prevent spark generated by static electricity from igniting flammable vapor that may be present.

Electrical Systems - All electrical systems, including electrical wiring, are installed and maintained by bonded electricians and comply with the City of Chicago Electrical Code. Cords to electrical equipment are checked before use and are replaced or repaired if found to be defective. All tools, equipment, and extension cords must be grounded. Furthermore, all heat producing equipment must be regularly maintained according to established procedures in order to prevent accidental ignition of combustible materials. The Hazardous Waste Accumulation Site does not have any electric outlets inside the building. Using electric equipment inside the Hazardous Waste Accumulation Site is highly discouraged. All lighting is explosion proof.

Space Heaters – the use of space heaters are not allowed in the Facility.

13. **STORAGE AND TREATMENT OF RELEASED MATERIAL**

In the event of released material, the DEHS will contact the University’s hazardous waste contractor to collect, contain, treat, store and dispose of any hazardous waste resulting from a release, fire, or explosion at the Facility. Spill kits are available to contain and clean up a hazardous release until the contractor arrives.

Where possible wastes will be absorbed and dammed so that they are contained using items such as pigs, vermiculite, and other absorbent material until the hazardous waste contractor arrives on site. Chemicals that can neutralize the hazardous waste may also be added.

14. **REQUIREMENTS FOR IGNITABLE, REACTIVE OR INCOMPATIBLE WASTE**

To avoid dangerous accidents, fires or explosions special care must be taken in handling ignitable, reactive or incompatible wastes. The wastes must be protected from ignition sources.

Combined storage of waste might react dangerously with one another or with the unit in which they are stored. Such reaction might be a fire or explosion or the release of toxic dusts, gases, or
fumes. Wastes will be stored in secondary containers and only compatible wastes may be stored together.

15. **SPILL CONTROL EQUIPMENT**

The following is a list of spill control equipment available at the Facility:

- 1 – Drum container, Size 20 gal.
- 6 – Hazmat Socks, 48 in.
- 7 - Hazmat Pillows,
- 20 – Yellow Hazmat Bonded Pads
- 1 – Overpack, 20 gal.
- 1 – Pair of Gloves
- 1 – Light Stick
- 3 – Disposal Bags with Ties
- 1 – Emergency Response Guidebook

Refer to **Appendix A**: Emergency Exit Plan-Hazardous Material Shed, for the location of the above-referenced spill control equipment.

16. **FIRE PROTECTION SYSTEM**

IIT’s buildings must comply with the City of Chicago Building Code. The occupants are protected by a variety of fire protection systems which include the following: portable fire extinguishers, and self-closing fire-rated doors. Representatives of the City of Chicago Building Department and the Chicago Fire Department periodically inspect the buildings and have been issued floor plans.

17. **FIRE EXTINGUISHERS**

Fire extinguishers are placed throughout the building and positioned according to the class of fire anticipated in the area. (See Appendix A: Emergency Exit Plan-Hazardous Material Shed).

17.1. **Combination**

Class A, B, C: Fire extinguishers which are a combination of Class A, B and/or C are found in this area in which more than one type of fire hazard could be present.

A licensed contractor annually inspects all fire extinguishers. Monthly visual inspections are conducted by the IIT Facilities Department. Hydrostatic testing of fire extinguishers are performed at intervals prescribed by OSHA or if a cylinder is damaged or corroded. An inspection tag is attached to each extinguisher, which indicates the record of inspection or testing. Fire extinguishers are only to be used by those individuals who have received the appropriate training.
17.2. **Fire Extinguisher Use – P.A.S.S.**

There are four basic steps to operating a fire extinguisher. An easy way to remember the procedure is to think of the word “PASS”

- **PULL THE PIN** - Holding the extinguisher with the nozzle pointing away from you, pull the pin, which is located below the trigger.

- **AIM LOW** - Standing 6-8 feet away from the fire, point the nozzle at the base of the fire. Always hold the extinguisher vertically. Never hold it horizontally or at an angle.

- **SQUEEZE THE TRIGGER** - Squeeze the trigger slowly and evenly. This will expel the extinguishing agent.

- **SWEEP FROM SIDE TO SIDE** - As the agent is being expelled, sweep the nozzle from side to side. As the fire begins to go out, move closer to the fire and continue the sweeping motion until the fire is extinguished. If the fire does not diminish or it grows, get out of the building. Close any doors in order to contain the fire to the immediate area.

18. **POST-EMERGENCY EQUIPMENT MAINTENANCE**

Immediately after an emergency event requiring the activation of this plan, all emergency equipment utilized will be inspected for proper function, completeness and condition. The equipment used for spill clean-up will be documented. The equipment will be evaluated for hazardous characteristics, decontaminated, or properly disposed of in containers. Decontamination procedures include a pressurized water rinse, scrubbing equipment with brushes and water-compatible solvent cleaning solutions, or steam cleaning. If the equipment remains contaminated, additional decontamination efforts will be completed. Contamination will be determined through visual observation and sampling, if necessary.

Rinseates from the decontamination of equipment will be collected in containers. The rinseates which contacted hazardous waste and resulting residue will be managed as hazardous waste unless laboratory results indicate otherwise. Other rinseates will be managed in accordance with all applicable laws.

Any equipment that is disposed of will immediately be replaced.

19. **COORDINATION AGREEMENTS**

A description of coordination agreements with local police and fire departments, hospitals, contractors, and state and local emergency response teams is available in the IIT Fire and Life Safety Policy.
20. **EMERGENCY EVACUATION STAGING AREA MAPS & EVACUATION FLOOR PLANS**

Maps of the IIT campus showing the Emergency Evacuation Staging Area and Evacuation Floor Plan of the Facility area are available for review and pick up at the Department of Facilities located in Room 200, Machinery Hall. In case of an evacuation, occupants will be instructed to congregate at this location and remain there until a decision is made by the appropriate officials to re-occupy the building, occupy another designated building, or send people home.

21. **EMERGENCY RESPONSE & EVACUATION PROCEDURES**

Remember, during an emergency situation your priority is to get out, or take cover and stay alive. Survival is the first and foremost priority!

The objective is to ensure that all building occupants evacuate the building properly and safely in the event of a fire or any other type of emergency. The Hazardous Waste Accumulation Site, will be fully evacuated in the event of a fire or spill emergency. The following procedures should be used during a fire evacuation:

**A. MANUAL SYSTEM – Evacuation and Reporting a Fire**

If a fire or spill is noticed by a building occupant, the individual’s first response should be to ensure his or her personal safety, immediately followed by:

1. Dialing 911 to report the incident. The following information should be provided:
   - The nature and location of the incident.
   - The name of the individual calling.
   - Whether the paramedics should be called to respond to a medical emergency.

2. If time allows, please call the IIT Public Safety emergency number, (312) 808-6363.

3. If the fire is small and can be controlled with portable fire extinguishers, an individual who has been properly trained in the use of fire extinguishers can attempt to put out the fire.

**B. FULL BUILDING EVACUATION PROCEDURES**

1. The Hazardous Waste Accumulation Area is not equipped with alarms. Due to the small size, limited access and layout of the building, an emergency, such as a fire would be noticed by occupants before an alarm would activate.

2. If an emergency situation occurs occupants should notify others in the building that they must evacuate due to an emergency.

3. Occupants should assist anyone who is having difficulty evacuating the building.
4. The Emergency Coordinator should immediately take their emergency position at the Emergency Evacuation Staging Area and prepare for a full building evacuation.

5. Occupants will immediately begin to evacuate the premises. The building has 2 exit routes. See Appendix A: Emergency Exit Plan-Hazardous Material Shed.

6. Evacuated personnel will congregate in the Emergency Evacuation Staging Area in the North end of the C2 Parking lot (See Appendix B), and remain there until the appropriate officials have made a decision to re-occupy the building, move, occupy another building, or send people home. Any occupants of the building must report to the DEHS or Facilities before entering the building. The DEHS and/or facilities will notify the Emergency Coordinator, either by telephone or in person, of possible occupants of the facility. The Emergency Coordinator will then account for all individuals. If someone is missing, the CFD must be notified immediately of the possibility that someone is still in the building and their likely whereabouts.

7. If and when conditions become safe for occupants to return to the building, the CFD will provide the “all clear” announcement. At this time, building occupants will be allowed to return.

8. Medical emergencies (e.g. heart attacks, unconsciousness, or similar occurrences) during an evacuation must be immediately reported to Public Safety (312)808-6363 and the on-site CFD personnel and/or paramedics. When reporting an emergency disclose the building name, building address, and the emergency evacuation staging area. The Hazardous Waste Accumulation Site is located at 3105 South Federal Street.

C. AFTER-HOURS EMERGENCIES

After-hours emergencies should be reported to IIT Public Safety who will dispatch an officer to the location of the emergency. IIT Public Safety must contact the Emergency Coordinator. Based on the nature of the emergency, they must also contact the CFD.

D. MEDIA RELATIONS

Only an IIT spokesperson is authorized to deal with the news media during an emergency. Occupants must be cautioned about making comments regarding business operations, damage to operations or the extent of the emergency to prevent rumors or unsubstantiated stories and to avoid providing incorrect information to the news media.

The Emergency Coordinator will notify necessary Federal, State and Local personnel
Note: Emergency response at IIT is a concerted effort among the members from, Facilities, Public Safety, and the Emergency Coordinator. However, it should be remembered that once CFD personnel are on the scene, they are in command and their instructions must be followed.

22. **EMERGENCY EVACUATION DRILLS**

All building occupants will be required to participate in periodic emergency evacuation drills. The purpose of these drills is to ensure that all occupants become familiar with their building’s evacuation plan, learn how to safely evacuate their areas, and become accustomed with emergency exits and their orderly use. These drills require that everyone respond to the given instructions and leave the building immediately in an orderly manner.

At the time of an emergency evacuation drill, building occupants will follow the procedures set forth in the IIT Fire & Life Safety Manual.

Disabled individuals should participate in the evacuation drills if their condition permits. The Emergency Coordinator should brief them in advance on how the drill will be conducted and the method of evacuation. If they cannot participate, they should be briefed on how they would be assisted in an actual emergency evacuation.

At a minimum, drills will be conducted biannually per the City of Chicago Municipal Code 13-56-090. The time required for each drill will vary, followed by a short discussion on the outcome of the drill. The Facilities Department will be responsible for maintaining the schedule and logging the evacuation drills.

The Emergency Coordinator will conduct all evacuation drills in accordance with the procedures set forth in the IIT Fire & Life Safety Manual.

23. **SECURITY**

Security provisions are intended to prevent accidental or unauthorized entry into the Facility. The Facility has entranceways which are locked and only authorized personnel are allowed in the Facility. Authorized personnel include the Emergency Coordinator, the DEHS, IIT facilities personnel with work orders, the hazardous waste disposal contractor and IIT Public Safety.

24. **INSPECTIONS**

To make sure that the facility is operating properly, the Facility is visually inspected minimally every 7 days. The Facility is inspected for malfunction, deterioration, operator errors, and leaks. The inspection follows a written inspection schedule developed by the DEHS. The schedule identifies the types of problems to be checked. The inspections are recorded in a log and any problems identified must be remedied.
25. **APPROVAL**

The IIT Safety Committee reviewed and recommends the adoption of this Policy on April 27, 2015, and this RCRA Contingency Plan - Hazardous Waste Accumulation Area is approved and effective this 7th day of May, 2015. The Safety Policy Committee will review the contents, implementation and effectiveness of this Policy no less than annually (but as often as necessary) to ensure that it meets all required legal and regulatory requirements and is adequately providing a safe and healthful environment for IIT faculty, employees, and students.

By: /s/ Alan W. Cramb

Alan W. Cramb, Provost and Senior Vice President

By: /s/ Bruce Watts

Bruce Watts, Vice President of Facilities and Public Safety