



UNIVERSITY OF
NORTHERN COLORADO

Environmental Health and Safety

HAZARDOUS MATERIALS INCIDENTS EMERGENCY RESPONSE PLAN

November 2014

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I. INTRODUCTION

Numerous regulations require an expedient and safe response to chemical or other hazardous material releases. This plan covers hazardous materials, radiological, and biological incidents on campus.

All chemical, radiological, and biological releases must be reported to University Police Communication Center at 351-2245.

II. HAZARDOUS MATERIALS INCIDENTS

Upon notification of a chemical release the University of Northern Colorado Police Department (UNCPD) Communication Center will:

1. Ensure that UNC Police officer has been notified.
2. Notify Environmental Health & Safety (EHS) Department.
3. If report includes sight of flames, serious injury, or human chemical contamination; request Greeley Fire Department (GFD) Hazardous Materials Response Team.

If no EHS representative is available, request the GFD Hazardous Materials Response Team to respond.

All Hazardous Material responses will be considered high risk until confirmed otherwise.

III. RESPONSIBILITIES AND OPERATIONS

All large-scale hazardous material responses will be approached from upwind.

All emergency operations shall be conducted in accordance with the following incident management procedure:

1. Isolate the Area / Deny Entry
2. Identify Material(s)
3. Evaluate Hazards and Risks
4. Choose Protective Clothing / Equipment
5. Coordinate Information / Resources

6. Control and Confine Product / Material
7. Cleanup Spilled Product
8. Decontamination
9. Return Area to Service
10. Terminate (Debrief / Document)

A. Police / Fire Response

First responders shall:

1. Provide emergency medical aid to victims, ONLY if it can be conducted without risking the responders' personal safety and/or contamination.
2. If possible, identify the hazard and materials involved.
3. Establish a perimeter, isolate the area, and prevent entry into the release area.
 - a. Use the Emergency Response Guidebook to set up evacuation perimeters and to gain knowledge of other potential hazards.
4. Detain knowledgeable individuals at the scene to obtain as much information as possible concerning the incident (Document comments).
5. Notify UNCPD Communications Center of the staging area for incoming EHS department and emergency agencies.

B. Environmental Health & Safety

When EHS arrives the first responders shall relay any information obtained. EHS will conduct a site hazard assessment to determine:

1. Material that was released
2. Approximate quantity released
3. Hazards associated with the material
4. Location of injured or contaminated individuals
5. The need to shut down mechanical and/or electrical systems
6. Potential for environmental contamination

EHS or UNCPD will determine if the GFD Hazardous Materials Response Team is needed.

If a radiological hazard is involved (see section VII), EHS shall have the Communication Center contact the Radiation Safety Officer (RSO) to advise on matters involving, or potentially involving ionizing radiation.

EHS shall relay hazard assessment information to the UNCPD Communication Center to be used by responding agencies and/or the Emergency Operations Center (EOC).

C. UNCPD / EHS

Both departments will jointly:

1. Establish an Incident Command depending on the needs of the incident.
2. Identify hazards and mitigate immediate threats to life, environment, and property.
3. Remain on scene until the clean-up is proceeding in a safe and effective manner.
4. If it is determined that the GFD Hazardous Material Response Team or clean up contractor can safely clean up the spilled material, they shall proceed to clean up as directed by EHS, and collect all wastes and contaminated materials in a proper manner. These containers will be monitored and disposed of by EHS hazardous materials contractor.

D. Outside Agencies

GFD Hazardous Materials Response Team is designated as the Emergency Response Agency for hazardous materials incidents within the City of Greeley. If GFD responds, they will assume Incident Command (IC) of the hazardous materials scene upon arrival. When appropriate, it is the responsibility of the GFD Hazardous Materials Response Team to set-up official hotzone's, decontamination area(s) and a command center. EHS will assist in the command center.

Other agencies that may assist in hazardous materials incidents:

1. Colorado Department of Public Health & Environment, Hazardous Materials and Waste Management Division
2. US Environmental Protection Agency Region VIII

3. Weld County, Office of Emergency Management
4. Colorado State Patrol, Hazardous Materials Team
5. Colorado Office of Emergency Management
6. City of Greeley, Water Quality Division

E. Clean Up Contractor

Most hazardous materials incidents will initially be handled through the above referenced sources and the GFD Hazardous Materials Response Team. Where further assistance is needed in conducting assessment or clean up, State or National assistance may be required.

EHS has provided a list of Emergency Response Hazardous Materials Contractors in the emergency response plan. EHS representative may activate the response/clean up contractor. In the event there is no EHS representative available, Facilities Management or a UNCPD representative may activate the response/clean up contractor.

IV. HEALTH SERVICES

Incidents that have a potential to affect the general health of campus constituents or the surrounding community, the EHS Director (or designee) shall inform UNC Police of potential health hazards. The Incident Commander will coordinate proper on-site response efforts. The campus Medical Health Officer (or designee) will contact State or County Health Agencies if needed.

EHS will form response teams and coordinate or conduct monitoring of potential health and safety hazards. Other groups of the Emergency Response Committee (ERC) or University personnel may be enlisted to assist in assessing potential hazards (e.g., Facility Management, Student Health Center, etc.).

V. REGULATORY NOTIFICATIONS

If available, EHS will make the required regulatory notifications. If unavailable, notifications will be made by the Incident Commander (IC) or Logistics Chief. Required notification should be made as soon as possible following initiation of the emergency response. Document all notifications. Notification numbers can be found in the Emergency Response Plan or EHS Release Report form.

VI. OFF CAMPUS HAZARDOUS MATERIALS INCIDENT

Large-scale hazardous material releases either on contiguous highways, railways, or from local jurisdictional areas have the potential to impact the University of Northern Colorado; causing serious injuries, fatalities, property damage, and/or requiring major evacuations or shelter in place.

A sudden release of hazardous material may allow little time for an organized response. Depending on the circumstances the following may be required:

1. Appropriate action may be to “shelter in place,” (remain in a closed building) or if appropriate and circumstances permit, university faculty, staff, and students may be directed to designated collection points/staging areas.
2. Evacuation may be required. Any evacuation will be coordinated by UNCPD.
3. The UNCPD or designee may instruct the university community to exit the campus through specific safe zones (routes).

VII. RADIOLOGICAL INCIDENTS

For all emergencies involving radiological materials, it is essential that an EHS representative and/or the UNC Radiation Safety Officer (RSO) be contacted and informed of the situation. In the event these individuals can not be contacted, a qualified member of the UNC Radiation Safety Committee (or qualified Physics Department representative) may substitute and will provide assistance to the IC. If the situation requires additional assistance or EHS, RSO, or Physics Department is not available, the Greeley Fire Department (GFD) Hazardous Materials Unit should be notified.

A. Inventory of Radioactive Materials

A Radioactive Materials Survey has been compiled by UNC Physics Department. A copy of this document will be kept on hand by the Physics Department with the RSO. This information is also maintained by the State of Colorado Department of Public Health & Environment, Laboratory and Radiation Services Division.

The Survey is an inventory of radioactive materials and outlines information that is essential to safely respond to an emergency involving a hazardous material. Due to the sensitive nature of this information, it is not included in the general text of this plan.

B. Exposure Limits & Levels of Response (Condition I, II, & III)

All levels of aggressive response must include surveying the area with a Geiger Counter whenever response personnel must enter an area that may expose them to radiation. A Geiger Counter measures each ionization event and expresses them in milliroentgens per hour (mRm/hr). A Geiger counter will not measure all types of radiation, but it will measure all sources of alpha, beta and gamma. In addition to the Geiger Counter, all response personnel should also wear dosimeter badges if it is necessary for them to enter an area that may expose them to radiation. The dosimeter badges do not offer any protection, but they are necessary to accurately measure the level of radiation exposure to response personnel.

A field survey exposure limit for emergency responders will be any reading on a Geiger Counter that exceeds 3 times background radiation levels. Background radiation being the level of radiation normally found in the environment is expressed in mRm/hr. If a responder reads three times background levels, he or she should immediately leave the area and inform the IC of the situation. Work or re-entry into the area may be allowed, but it will depend on the particular circumstances. At no time should response activities continue in an area if there is an exposure rate 10 times greater than background levels, without the consent of a health physicist.

Response actions are divided into three levels, Condition I, II, and III. The following response conditions relate specifically to emergencies involving the presence or release of radioactive materials and/or energy. It is determined by the IC what response condition the particular situation presents.

1. Radiological Response Condition I (RRC-I)

RRC-I conditions involve radioactive materials at UNC, and the situation is stable and the risk level in terms of risk to human health, property and the environment is known to be minimum. Such situations typically would not require the evacuation of more than the immediate area where the materials are stored. RRC-I situations typically do not warrant notification of outside agencies.

2. Radiological Response Condition II (RRC-II)

RRC-II situations involve the release, suspected or confirmed, of a minimum amount of radioactive material or energy and/or a potential minimum exposure to personnel. RRC-II conditions include situations where not all of the information is known, and it is believed that potential releases are minimal in terms of the risk to human health, property and the environment. An RRC-II condition also includes releases of radioactive materials that have been accurately quantified and qualified and have been found to pose a minimal risk. An RRC-II condition typically will require an evacuation of the area immediately surrounding the radioactive materials. Whenever outside agencies are called on to campus to assist in the response or evaluation, the situation is automatically classified as an RRC-II. An RRC-II or greater automatically requires notification to the Emergency Response Committee (ERC).

3. Radiological Response Condition III (RRC-III)

RRC-III situations are the most serious in terms of risk to human health, property and/or the environment. **Any RRC-III condition automatically requires notification to the ERC.** An RRC-III condition exists whenever there is a known or suspected uncontrolled release of a significant amount of radioactive material and/or energy to the extent that a significant area or multiple buildings may have been affected.

An RRC-III condition also exists whenever radioactive contamination is known to or is suspected to have migrated off or onto campus and potentially affected the area. The known or suspected theft of radioactive materials also constitutes an RRC-III situation. An RRC-III condition also exists whenever a person or persons has been or is suspected to have been exposed to enough radiation to cause irreversible adverse health affects and whose contamination poses a threat to others.