This Transportation Emergency Preparedness Program (TEPP) Hazardous Materials Incident Response Model Procedure contains the recommended actions for response to transportation incidents involving radioactive materials.

ASSUMPTIONS

The following assumptions are to be considered when reviewing this procedure:

- This procedure is not all-inclusive but was developed to meet the minimum national standards for response to a hazardous materials incident.
- This procedure is designed for use by trained and qualified emergency responders to operate within the guidelines of OSHA's 29 CFR 1910.120. Additional procedural requirements may be implemented according to the appropriate state, tribal, or local standards.
- Response to transportation accidents involving radioactive materials should be managed as a response to a non-radioactive material hazardous material incident with additional actions and precautions implemented as necessary due to the radiological concerns.
- The response procedure should be utilized appropriately according to the conditions encountered when arriving at these incidents.
- All emergency response personnel have been trained in the use of an Incident Management System such as the Incident Command System.
- Incident scene decisions regarding operations in the hot zone shall be approved by the federal, state, tribal, or local agency or official designated as the Radiation Authority.

1.0 PURPOSE

The purpose of this procedure is to provide guidance for developing an emergency response plan, as outlined in OSHA's 29 CFR 1910.120(q), for facility response. This model has been adopted and applied to work for response to transportation accidents involving radioactive material or other hazardous materials incidents.

2.0 SCOPE

This procedure applies to those personnel who have responsibilities listed in Section 3.0. Furthermore, this procedure is intended for use on any response involving actual or potential radiological or other hazardous material release.

3.0 RESPONSIBILITIES

3.1 Emergency Communications Center shall:

3.1.1 Notify Hazardous Materials Response Team (HMRT) Senior Officer and team members of the accident and dispatch equipment as required.

3.1.2 Record information as required by the Emergency Communications Center Spill Response Report Forms/Procedures.

3.2 HMRT Senior Officer shall:

3.2.1 Contact shipper and carrier representatives.

3.2.2 Complete Hazardous Materials Data Sheet. (See Attachment A)

3.2.3 Consult with shipper, carrier representatives, Local Fire Department and State Radiation Control Division or Environmental Protection Division to review proposed actions.

3.2.4 Identify and direct isolation plans.

3.2.5 Decide cleanup plan or request a private clean up contractor from the State approved list.

3.2.6 Give proper turnover if a Contractor Spill Response Team is requested.

3.2.7 Communicate with appropriate agencies concerning incident status.

3.2.8 Be responsible for completion of all incident documentation.

3.3 Emergency Medical Service personnel shall:

3.3.1 Monitor HMRT member's vital signs prior to entry into hazardous environment.

3.3.2 Monitor HMRT team member's vital signs upon exiting hazardous environment.

3.4 Incident Commander shall:

3.4.1 Ensure completion of Scene Safety Plan any time Level A or B entry work is necessary.

3.4.2 Ensure completion of this procedure.

4.0 RECORDS

4.1 Scene Safety Plan.

4.2 See attachments, this procedure:

Attachment A - HMRT Hazardous Material Data Sheet

Attachment B - HMRT Hazardous Materials Medical Surveillance Report

Attachment C - Emergency Communications Center Report

5.0 FREQUENCY

Use this procedure as needed.

6.0 REFERENCES

6.1 NFPA 471 (2002) - Recommended Practice for Responding to Hazardous Materials Incidents.

6.2 NFPA 472 (2002) - Standard for Professional Competence of Responders to Hazardous Materials Incidents.

6.3 10 CFR 835.1302 - Emergency Exposure Situations

6.4 29 CFR 1910.120 - Hazardous Waste Operations and Emergency Response

6.5 DOT Emergency Response Guidebook

6.6 U.S. Environmental Protection Agency - Standard Operating Safety Guide

6.7 International Association of Firefighters - Training for Hazardous Materials Emergency Response

6.8 MSDS Pocket Dictionary - JJ Keller 1998

6.9 Transport of Radioactive Materials Q&A -Oak Ridge Associated Universities

6.10 Guidance for Developing State, Tribal and Local Radiological Emergency Response Planning and Preparedness for Transportation Accidents - Federal Emergency Management Agency - 1992

7.0 EQUIPMENT

Hazardous materials response equipment as determined by nature and scope of incident.

8.0 LOCATION

Use this procedure as needed based upon incident location.

9.0 SAFETY

9.1 Work within safety guidelines as specified in reference manuals.

9.2 Involve appropriate shipper, carrier, federal, state, tribal or local officials to assist in incident evaluation.

9.3 The Safety Officer designated by the Incident Commander on the scene has the authority to stop any work in which safety related items may be an issue.

9.4 Report all injuries or unusual incidents to the Safety Officer or Incident Commander.

10.0 TERMS/DEFINITIONS

Buddy System - a method of organizing employees into work groups in such a manner that each employee of the work group is designated to be observed by at least one other employee in the work group. The purpose of the buddy systems to provide rapid assistant to employees in the event of an emergency.

CFR - ***Code of Federal Regulations*** - A collection of the regulations established by law. Contact the agency that issued the regulation for details, interpretations, etc.

Cold Zone - Also referred to as the support zone, the cold zone is a contamination-free zone established around the warm zone where emergency operations can be directed and supported. The cold zone is normally established in an area where radiation levels are at natural background levels.

Control Zones - The areas at a hazardous materials incident that are designated based upon safety and the degree of hazard. Many terms are used to describe the zones involved in a hazardous materials incident. For the purposes of this document, these zones are defined as the hot, warm and cold zones.

Decontamination ***(Contamination Reduction)*** - The physical and/or chemical process of reducing and preventing the spread of contamination at a hazardous materials incident

DOE – U.S. Department of Energy.

Dose - A general term for the quantity of radiation energy absorbed.

Dosimeter – A small portable instrument (such as a film badge, thermoluminescent or pocket dosimeter) for measuring and recording the total accumulated personnel dose of ionizing radiation.

Dose Rate - The radiation dose delivered per unit time. For example, rem or millirem per hour (r/hr or mrem/hr). The dose rate is commonly used to indicate the level of hazard from a radioactive source.

DOT – U.S. Department of Transportation.

EPA – U.S. Environmental Protection Agency.

ERG - ***Emergency Response Guidebook*** - Booklet that provides guidance during the initial phases of transportation emergencies involving hazardous materials.

Exposure - Being exposed to ionizing radiation, radioactive material, or other hazardous materials. Radiation exposure is measured in Roentgens (R) or the subunit milliroentgens (mR). For practical purposes, one roentgen is equal to one rem.

Hazardous Material - A substance capable of creating harm to people, the environment and property.

HMRT - ***Hazardous Materials Response Team*** - an organized group of employees, designated by the employer, who are expected to perform work to handle and control actual or potential leaks or spills of hazardous substances requiring possible close approach to the substance. The team members perform responses to releases or potential releases of hazardous substances for the purpose of control or stabilization of the incident. A HAZMAT team is not a fire brigade nor is a typical fire brigade a HAZMAT team. A HAZMAT team, however, may be a separate component of a fire brigade or fire department.

Hot Zone - Also referred to as the exclusion zone in some jurisdictions. The hot zone is usually set up in the immediate area surrounding the spilled material or incident scene. Access to the hot zone should be controlled for accountability purposes as well as contamination control purposes.

IC - ***Incident Commander*** - The person responsible for all decisions relating to the management of the incident. The incident commander is in charge of the incident scene. This term is equivalent to the on-scene incident commander.

ICS - ***Incident Command System*** - An organized approach to control and manage operations at an emergency incident. The OSHA Hazardous Waste Operations and Emergency Response regulations (29 CFR 1910.120 (q) (3) (ii) require that an ICS be implemented by the senior emergency response official on the scene).

LEL - ***Lower Explosive Limit*** - Refers to the lowest concentration of gas or vapor (% by volume in air) that burns or explodes if an ignition source is present at ambient temperatures.

Monitoring Equipment - Instruments and devices used to identify and quantify contaminants.

MSDS - ***Material Safety Data Sheet*** - A fact sheet summarizing information about material identification; hazardous ingredients; health, physical, and fire hazards; first aid; chemical reactivities and compatibilities; spill, leak and disposal procedures; and protective measures required for safe handling and storage.

NFPA - ***National Fire Protection Association***- An international voluntary membership organization formed to promote/improve fire protection and prevention and establish safeguards against loss of life and property by fire.

NIOSH - ***National Institute of Occupational Safety and Health***.

OSHA - ***Occupational Safety and Health Administration*** - The U.S. Department of Labor's regulatory and enforcement agency for safety and health.

PPE - ***Personal Protective Equipment*** includes both respiratory and physical protection. One cannot assign a level of protection to clothing or respiratory devices separately. These levels were accepted and defined by response organizations such as U. S. Coast Guard, NIOSH, and U.S. EPA.

Level A: Self Contained Breathing Apparatus (SCBA) plus fully encapsulating chemical resistant clothing (permeation resistant)

Level B: Self Contained Breathing Apparatus (SCBA) plus chemical resistant clothing (splash proof)

Level C: Full or half-face respirator plus chemical resistant clothing (splash proof)

Level D: Coverall with no respiratory protection.

Radiation *Authority* - A federal, state, or tribal agency designated official. Responsibilities include evaluating radiological hazard conditions during normal operations and emergencies.

Radioactive Material Labels

Radioactive White-I – applied to packages with a surface dose rate of equal to or less than 0.5 millirem/hr.

Radioactive Yellow-II - applied to packages with a surface dose rate of equal to or less than 50 millirem/hr or equal to or less than 1 millirem/hr at 1 meter.

Radioactive Yellow-III - applied to packages with a surface dose rate of equal to or less than 200 millirem/hr or equal to or less than 10 millirem/hr at 1 meter.

Radioactivity - The spontaneous emission of radiation, generally alpha or beta particles, often accompanied by gamma rays, from the nucleus of an unstable atom or radioisotope (see below). Also, the rate at which radioactive material emits radiation.

Radioisotope (radionuclide) - An unstable isotope of an element that decays or disintegrates spontaneously, emitting radiation. Approximately 5,000 natural and artificial radioisotopes have been identified.

Rem - The acronym for Roentgen Equivalent Man is a standard unit that measures the effects of ionizing radiation on humans.

UEL - ***Upper Explosive Limits*** - The highest concentration of a material in air that produces an explosion or fire or that ignites when it contacts an ignition source.

Warm Zone - Also referred to as the contamination reduction zone, the warm zone is usually established around the hot zone to provide a buffer between the hot and cold zones. Decontamination often takes place in the warm zone.

11.0 PLANNING AND COORDINATION

When notified of a radioactive material or other hazardous materials incident by the Emergency Communications Center, the HMRT senior officer shall request and record all pertinent information as obtained by Emergency Communications Center on the Hazardous Materials Incident Report Form (see Attachment C).

Upon arrival at incident scene, the HMRT senior officer is to: Report to the Incident Command Post and receive an incident briefing from the Incident Commander.

Verify initial responders using the Emergency Response Guidebook appropriately identified and implemented recommended ERG protective actions.

Request Shipping/MSDS Papers from the Incident Commander or transporting carrier representative.

Complete the HMRT Hazardous Materials Data Sheet to assist in scene assessment. (See Attachment A.)

Upon completion of Data Sheet, the HMRT senior officer is to consult with Federal, State, Tribal and/or local agencies on scene to review proposed actions.

Based on the IC's decision, if the Hazardous Materials Response Team is to be assigned to response duties for a long duration, the IC will request mutual aid from State, Tribal, local or private response agencies. If the incident exceeds HMRT capabilities, the following agencies can be contacted for assistance:

- Local Emergency Response
- Support County Emergency Management Division
- Local Mutual Aid Emergency Responders

This portion of the Hazardous Materials Response procedure shall be filled out prior to HMRT entry and shall be updated as necessary during the course of the incident. Appropriate Attachments shall be completed as required.

Date of Plan _____ Time_____

Verify: Initial emergency responders have implemented appropriate actions as indicated by the Emergency Response Guidebook and that incident scene has been re-evaluated for changing conditions or additional hazards.

Identify or list mutual aid or support agencies participating in the response.

NOTE: Communications with the State Emergency Response vehicle can be established by obtaining cellular phone number from the agency.

Include names, addresses and telephone numbers local, state or tribal radiation authorities having responsibility for emergency response and/or assistance.

Insert table with the following columns: Local, State or Tribal Contact for Radioactive Materials Response, Mailing Address, 24-Hour Telephone

12.0 ROLES, RESPONSIBILITIES, AND AUTHORITY

Incident Command Organization: List the person(s) responsible for each job function listed below:

NOTE: Roles and authority for the listed positions are typical for emergency services agencies. A person may be assigned more than one job function.

Insert table with the following columns: Role/Position, Name, Agency

13.0 EMERGENCY RECOGNITION AND PREVENTION

Hazard Evaluation: List all known or suspected hazardous substances and concentrations suspected to be on-scene. Identify the primary hazard of each.

NOTE: Attachment A shall be completed for each hazardous substance listed below.

Product	Concentration	Primary Hazard
_____	_____	_____
_____	_____	_____
_____	_____	_____

_____ / _____/_____

_____ / _____/_____

Personal Protective Equipment

List specific Personal Protective Equipment (PPE) requirements as recommended by reference material and/or MSDS:

Product	PPE Requirement
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

When determining level of personal protective equipment for response to radiological hazards, utilize Emergency Response Guidebook guides 161-166, the MSDS, and/or information provided by shipper.

14.0 SAFE DISTANCES AND REFUGE

Upon evaluation of known and suspected potential hazards, personal protective equipment shall be selected and documented below:

Location	Job Function	Level of Protection
Hot Zone (Exclusion)	_____	A B C D Other
	_____	A B C D Other
	_____	A B C D Other
	_____	A B C D Other
Warm Zone (Decon)	_____	A B C D Other
	_____	A B C D Other

_____ A B C D Other

_____ A B C D Other

Cold Zone (Support) _____ A B C D Other

_____ A B C D Other

NOTE: Only the Incident Commander or the Safety Officer has the authority to change the type of personal protective equipment to be used during the incident.

Incident Scene Monitoring

Monitoring for hazardous atmospheres should be used in establishing the Command Post location. The Command Post should be continuously monitored for hazardous atmospheres.

Incident scene monitoring must be conducted during initial and subsequent entries. If conversion factors are used, the conversions should be conducted by the Science Officer and then relayed to the Incident Commander and Operations Officer.

List the monitoring instrument(s) used and conversion factors or calibration information as reflected by the manufacturer's literature or procedure:

Instrument	Conversion factor	Calibrated to
_____	_____	_____
_____	_____	_____
_____	_____	_____

Command Post Atmospheric Monitoring Results

Time	O2 %	CGI%	Radiation Survey
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

The following action levels are provided as EPA recommendations:

Oxygen Indicator:

<19.5% - Monitor using SCBA

>25% - Discontinue monitoring; fire hazard potential

Combustible Gas Indicator (CGI):

<10% - LEL Continue monitoring with caution

10-25% - LEL Continue monitoring with extreme caution as higher levels are encountered

>25% - LEL Explosion hazard; withdraw from area immediately

Radiological Conditions:

See following page for stay time table.

Insert Guidelines for control of emergency exposures table

Insert table for stay time to receive this radiation dose table

Refuge

All responders should be briefed on designated refuge locations. Typically these include upwind locations. Refuge may be required for severe weather, unexpected conditions, or event escalation. See Section 16 on Emergency Evacuation Routes, Refuge, and Procedures for specific guidance.

15.0 SITE SECURITY, CONTROL, AND COMMUNICATIONS

Control boundaries (hot zone, warm zone, and cold zone) for the incident shall be established. These areas shall be identified on an attached map or drawn on page 16.

This map should be developed prior to the initial HMRT entry. The map should include the following information.

- Identification of map north
- Wind direction
- Command Post
- Staging Area
- Rehab Area
- Access Control points
- Contamination reduction line
- Drainage points
- Natural and manmade topographic features including locations of buildings, containers, impoundments, pits, ponds, tanks or any other scene features.

Update incident scene maps as necessary to reflect changing conditions or new information.

Boundaries identified by: _____

_____

Person designated to coordinate scene access: _____

NOTE: Only authorized personnel shall be allowed within the incident area. Qualifications for entry include training and medical monitoring according to OSHA 29 CFR 1910.120.

Command Post location _____

Staging location _____

Rehab location _____

Wind Direction & Conditions _____

NOTE: The Command Post, Staging Area and Rehab Area are to be located upwind from the exclusion area.

Listing of established law enforcement/security boundaries _____

Have law enforcement/security provide a map indicating location of established boundaries for the incident. These areas shall be identified on an attached map or drawn on page 17.

Incident Scene Map

(Indicate map north)

Law Enforcement/Security Map

(Indicate map north)

16.0 COMMUNICATIONS

All personnel involved in entry team activities shall remain in constant communication—via radio, visual, or verbal methods—with the IC or his designee (HMRT Operations Officer, Safety Officer, etc.). Failure of communication requires the entry team to exit the hot zone.

Reference Section 17.0 for emergency alerting procedures and signals to indicate when personnel should exit the hot zone.

Identify communication methods available to the Command Post:

Cellular Phone Numbers _____ / _____

_____ / _____

FAX Numbers _____ / _____

_____ / _____

Radio Group/Channel _____ / _____

_____ / _____

Initial Entry Objectives

List entry objectives and name entry assignments for each team. All personnel shall be briefed on communication methods, emergency evacuation, event status, product hazards, personal protective equipment required, overall objectives and on their specific job functions.

Names of Entry Team #1

_____

_____

_____

_____

Entry Team #1 Objective _____

_____

_____

_____

Names of Entry Team #2

_____

_____

_____

_____

Entry Team #2 Objective _____
_____
_____
_____

Names of Backup Team

_____
_____
_____
_____

Backup Objective _____
_____
_____
_____

Names of Decon Team

_____
_____
_____
_____

Decon Team Objective _____
_____
_____
_____

NOTE: Prior to initiation of and upon completion of assigned tasks, each team shall be monitored by on-scene medical personnel. HMRT members will be monitored as outline in Attachment B - Hazardous Materials Medical Surveillance Report. Water or other appropriate fluids will be available at the medical monitoring station for all on-scene personnel to reduce the possibility of heat related injuries. Appropriate measures such as warm vehicles, clothing and blankets will be available for cold related injuries.

17.0 EMERGENCY ALERTING, EVACUATION ROUTES, AND REFUGE PROCEDURES

The following standard emergency procedures will be used by on-scene personnel. The Safety Officer shall be notified of ANY on-scene emergencies and will be responsible for ensuring that the appropriate procedures are followed.

Responder Emergency Alerting Signals

The following hand signals shall be used in by responders in case of radio failure:

Hands gripping throat	Out of air/Breathing difficulty
Grip partner's wrist	Leave area immediately
Hands on waist	Leave area immediately
Hands on top of head	Need assistance
Thumbs up	I'm OK/I understand
Thumbs down	I'm not OK

Uncontrolled Fire/Explosion Alerting Procedure

Incident Commander, using radio and public address, will announce to all involved in the area to evacuate. Air horns on emergency response vehicles will sound with three blasts to indicate emergency evacuation.

Personal Protective Equipment Failure Procedure

If any responder experiences a failure or alteration of the PPE, that person AND his/her buddy shall immediately exit the hot zone. Re-entry shall not be permitted until the equipment has been properly repaired or replaced. The "buddy system" shall be used at all times.

Other Equipment Failure Procedure

If any other equipment on the incident scene fails to operate properly, the Incident Commander and the Safety Officer shall be notified and shall then determine the effect this failure has on continuing operations. If the failure affects the safety of personnel or prevents completion of the Entry Objectives, all personnel shall leave the hot zone until the situation is evaluated and appropriate actions are taken.

Emergency Evacuation Routes and Refuge:

The following routes shall be designated for exit from the hot zone in case egress cannot occur through the established decon area.

_____
_____
_____
_____

The following area shall be the designated area for personnel refuge in the event of severe weather, unexpected conditions, or event escalation.

_____
_____
_____
_____

In all situations, when an incident scene emergency results in evacuation of the hot zone, personnel do not re-enter until:

- The conditions resulting in the emergency have been corrected.
- The hazards have been reassessed.
- The Scene Safety Plan has been reviewed.
- Scene personnel have been briefed on any changes in the Scene Safety Plan.

18.0 DECONTAMINATION

Decontamination procedures shall be established during the hazard evaluation process. All decontamination requirements shall be documented below:

Decon Setup _____
_____
_____

Emergency decon shall include the following: _____
_____
_____

Decon Equipment required _____
_____
_____

Decon solution _____
_____
_____

Suit Journal Report

Record necessary information as may be required by suit manufacturer to document product exposed to, length and type of exposure and decon solution

_____
_____

_____
_____

19.0 MEDICAL TREATMENT

Document name/location of nearest medical facility.

Facility Name	Location	Telephone

_____ / _____/_____

_____ / _____/_____

Complete Attachment B for each responder entering the warm or hot zone.

20.0 DOSIMETER READINGS

Document readings from dosimeters in the section noted below.

Insert table with responder name, etc for dosmimeter reading

21.0 COMMENTS

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

22.0 SIGNATURES

All scene personnel are required to read and understand the provision of the Scene Safety Plan and sign below upon completion of the review.

Title	Name (Printed)	Signature
Incident Commander	_____/	_____
Safety Officer	_____/	_____
Operations Officer	_____/	_____
HMRT Senior Officer	_____/	_____
_____ /	_____/	_____
_____ /	_____/	_____
_____ /	_____/	_____

_____ / _____/_____

_____ / _____/_____

_____ / _____/_____

Upon resolution of the incident, the Incident Command or designee shall be responsible for completing applicable attachments and conducting an incident critique.

23.0 CRITIQUE OF RESPONSE AND FOLLOW-UP ITEMS

Upon completion of the event critique, a lessons learned report should be developed and filed as part of the incident response file.

Critique Location: _____

Critique Time: _____

Lessons Learned:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

ATTACHMENT A - HAZARDOUS MATERIAL DATA SHEET

Hazardous Material Response Team

Note: Complete a Data Sheet Form for each hazardous material

1.0 Hazardous Material:

Shipping Name _____ Dot Hazard Class _____

Chemical Name _____ ID# _____STCC# _____

2.0 Physical Description:

Normal Physical Form: Solid_____ Liquid_____Gas _____

Molecular Weight: _____

Color _____Odor _____

Other _____

3.0 Radiological Hazards:

Package Information

Insert table

Radioactive Material Label Limits:

Radioactive White-I	0.5 mrem/hr max. on surface
Radioactive Yellow-II	50 mrem/hr max. on surface; 1 mrem/hr max. at 1 meter
Radioactive Yellow-III	200 mrem/hr max. on surface; 10 mrem/hr max. at 1 meter

_____

_____

_____

_____

4.0 Shipper:

Carrier, Name/Type/Address _____

Rail Car No. _____

Consignee/Address _____

Origin/Designation _____

B/L - Waybill No._____

Persons Notified	Time	Phone	Agency / Dept.

_____/ _____/ _____ / _____
_____/ _____/ _____ / _____
_____/ _____/ _____ / _____
_____/ _____/ _____ / _____
_____/ _____/ _____ / _____
_____/ _____/ _____ / _____
_____/ _____/ _____ / _____
_____/ _____/ _____ / _____
_____/ _____/ _____ / _____
_____/ _____/ _____ / _____

5.0Chemical Properties:

Specific Gravity_____ Vapor Density_____

Boiling Point _____°F Melting Point _____ °F

Vapor Pressure _____ psi or mmHg at _____°F

Expansion Ratio_____

Solubility In water: Yes No

Degree of solubility:

_____

Other

_____
___

6.0Health Hazards:

Inhalation Hazard: Yes No TLV/TWA _____ ppm(mg/m)

LC50 _____ ppm/hr.

Ingestion Hazard: Yes No LD50 _____mg/kg

Absorption Hazard: Yes No

Skin: Yes No

Eyes: Yes No

IDLH Value _____ ppm/air(mg/m)

STEL Value _____ ppm/air(mg/m)

Chronic Hazard:

Carcinogen: Yes No

Mutagen: Yes No

Teratogen: Yes No

Hazardous to Aquatic Life: Yes No

Other: _____

_____

Decontamination Procedures: _____

_____

First Aid Procedures:

_____

_____

Fire Hazards:

( ) Yes Flash Point _____F Ignition (Auto ignition) Temperature _____F

( ) No Flammable (Explosive) Range: LFL(LEL)_____% UFL(UEL) ____%

Toxic Products of Combustion _____

Other _____

Possible Extinguishing Agents: _____

Reactivity Hazards:

( ) Yes Reactive with what _____

( ) No

Other _____

Corrosivity Hazards:

( ) Yes pH _____ Corrosive to what: Skin: Yes No Steel: Yes No

( ) No Other _____

Neutralizing Agents

_____

_____

7.0 Recommended Protection:

For Public - Evacuation distance _____ (specify unit of measure)

for _____ (quantity) _____

For Response Personnel (Level of protection required)

_____

_____

For Environment

_____

_____

Completed By _____ Date_____ Time _____

8.0 REMARKS:

_____

_____

_____

_____

ATTACHMENT B - HAZARDOUS MATERIALS MEDICAL SURVEILLANCE REPORT

Hazardous Materials Response Team

1.0 Name: _____ S. S. #: _____

2.0 Date: _____

3.0 Incident Number:_____

4.0 Pre-Entry Medical Monitoring:

4.1 Vital Signs Exclusion Criteria

4.1.1 Blood Pressure_____/_____	Diastolic pressure > 105mHg
4.1.2 Pulse _____	>70% maximum heart rate (max. heart rate =220 age)
4.1.3 Respiration _____	>24 per minute
4.1.4 Temperature _____	> 99.5° F oral or <97° F oral >100.5° F core or <98° Fcore
4.1.5 Weight _____	No pre-entry exclusion

4.1.6 EKG _____ Dysrhythmia not previously detected (attach 10 second strip)

4.2 Skin Evaluation

4.2.1 Rash, wound, open sore _____ Open wound, sore, large area of rash or significant sunburn

4.3 Mental Status

4.3.1 Alert w/normal speech: _____ Altered mental status, slurred speech or body weakness

4.4 Medical History

4.4.1 Medications - list medications taken within past 24 hrs: _____

Prescription medications taken within past two weeks: (including over-the-counter meds. such as cold, flu or allergy meds. within past 72 hours) _____

4.4.2 Alcohol consumption within past 24 hours: _____

Any alcohol consumption within past six hours or heavy alcohol intake with past 72 hours : _____

4.4.3 Medical treatment or diagnosis made within last 2 weeks: _____

4.4.4 Symptoms of fever, nausea, vomiting, diarrhea or cough during past 72 hours: _____

Presence of nausea, vomiting diarrhea, fever, upper respiratory infection, heart illness or heavy alcohol intake within past 72 hours. _____

4.5 Hydration

4.5.1 Consumption of 8-16 ounces of water or diluted activity drink : _____

Lack of consumption of 8-16 ounces of water or diluted activity drink. _____

5.0 Post-Entry Medical Monitoring:

5.1 Vital Signs

5.1.1 Blood Pressure _____ /_____

5.1.2 Pulse _____

5.1.3 Respiratory rate _____

5.1.4 Temperature _____

5.1.5 EKG (if available) _____

5.1.6 Weight _____

5.2 Skin Evaluation

5.2.1 Rash, wounds, open sores _____

5.3 Mental Status

5.3.1 Alert/Normal speech: _____

6.0 Post-Medical Monitoring Follow-Up:

Post-medical monitoring follow-up should include the following:

(a) Repeat monitoring of vital signs every 5-10 minutes until they return to less than 85 percent of maximum pulse rate. If at 10 minutes the signs have not returned to within 10 percent of baseline, perform orthostatic vital signs.

(b) Determine from medical control what information regarding latent reactions/symptoms should be communicated to response personnel.

(c) If any of the following symptoms are present, contact medical control for direction and preparation for possible transport to a medical facility:

1. Body weight loss of greater than 3 percent or positive orthostatic (pulse increase by 20 beats per minute or systolic blood pressure decrease by 20 mmHg at two minutes standing)
2. Greater than 85 percent maximum pulse at 10 minutes.
3. Temperature greater than 101° F (oral) or 102° F (core)
4. Nausea, vomiting, diarrhea, altered mental status, or respiratory, cardiac, or dermatologic complaints

7.0 Treatment Protocol for Hazardous Materials Team Members

Rest time for all personnel should equal at least minimum suit time. Individuals may require additional time for oral rehydration. All personnel should be informed of signs and symptoms to watch for.

7.1 If the team member is not within 10 percent baseline within 10 minutes, orthostatic vital signs should be taken.

7.2 *If personnel experience greater than 3 percent body weight loss (4 1/2 pounds in a 50 pound person); positive orthostatic (pulse increases by 20 beats per minute or systolic blood pressure decreases by 20 mmHg at two minutes standing); greater than 85 percent*

of maximum pulse at 10 minutes; temperature greater than 101oF oral (102oF core); nausea, altered mental status or any other symptoms, the following treatment should be performed:

(a) Intravenous fluids hydration with Ringers Lactate or Normal Saline at rate (usually wide open) to get pulse less than 100 beats per minute, systolic blood pressure greater than 110mmHg.

8.0 Product(s) Exposed to:

_____

9.0 Length of Exposure:

_____

10.0 Type of PPE Worn:

_____

Surveyed by: _____

Organization:

_____

Date:

_____

ATTACHMENT C - HAZARDOUS MATERIALS RESPONSE REPORT

To be filled out by: Emergency Communications Center

Report No. _____

1.0 Date_____

2.0 Time of Notification_____

3.0 Caller Name/Organization _____

4.0 Call Back No./Location _____

5.0 Individual/Agency Involved_____
Phone No. _____

6.0 Product(s) Involved _____

Markings Visible _____

7.0 Incident Details (Type, Quantity, Etc.) _____

_____

_____

8.0 Location/Time of Incident _____

_____

9.0 Scene Accessibility/Precautions _____

_____

10.0 Has Area Been Cleared_____

11.0 Injuries/Types _____

_____

12.0 Are People Contaminated _____

13.0 If Request for Assistance is from Another Emergency Response Agency:

Are Responders on Scene_____

Command Post Location_____

Staging Area _____

Recommended Response Route _____

_____

Communication Link

Radio Frequency_____

Phone No. _____

14.0 Persons Notified Time Phone Agency / Dept.

_____ / _____/ _____/_____

_____ / _____/ _____/_____

_____ / _____/ _____/_____

_____ / _____/ _____/_____

_____ / _____/ _____/_____

_____ / _____/ _____/_____

_____ / _____/ _____/_____

_____ / _____/ _____/_____

Communications Tech._____

Date_____