

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM

Preface

It is the intention of this document to provide the members and those reading it a summary of how the MABAS 24 Hazardous Materials Response Team will function as a cohesive unit. It is only a guideline and actions must be taken as risk dictates upon observation and analysis. The guideline is written to meet the standards set forth in NFPA 471 and 472 as well as the regulations set forth in 29 CFR 1910.120. The standards and regulations that are not covered by this document will be followed in order to meet them in all areas. This is a living document that can be changed at anytime that it is deemed necessary and will be reviewed on a regular basis to insure its accuracy and compliance. It is our concern that these guidelines be designed not only to mitigate hazardous materials incidents but to insure that both the members and agencies responding, along with the public are protected to the maximum of our capabilities. *“Every one goes home”*.

SUBJECT: TERMINOLOGY

DATE IMPLEMENTED: JANUARY 1, 2006

REVISED:

Advisor: A Division 24 Haz Mat Team member who is also a certified Haz Mat Technician and certified HazMat Incident Commander. To consult the Incident Commander by providing technical information and advice for mitigation of a hazardous material incident.

Chemical Protective Clothing: A single or multi-piece garment constructed of chemical protective clothing materials designed and configured to protect the wearer's torso, head, arms, legs, hands and feet. It covers the wearer's head, hands, and feet with detachable or attached hoods, gloves and boots. It completely encloses the wearer by itself or in combination with the wearer's respiratory equipment, hood, gloves and boots.

Team Response: Personnel specifically trained to deal with the hazardous materials incident. Team members will be the only ones allowed to work with the equipment stored in the vehicles, under the direction of the Haz Mat Sector Commander, who will be responsible to the stricken community Incident Commander.

Contamination Reduction: also known as Decontamination; The physical and/or chemical process of reducing and preventing the spread of contamination from persons and equipment used at a hazardous materials incident.

Control Zones: The designation of areas at a hazardous materials incident based upon safety and the degree of hazard. Many terms are used to describe the zones involved in a hazardous materials incident. For purposes of this standard, these zones shall be defined as the hot (hazard zone), warm (limited access zone) and cold (support) zones.

Decontamination Area: The area on the incident scene where decontamination takes place usually located in the WARM ZONE. This area will be restricted to persons and equipment that are contaminated, and the decontamination team.

DECON: Abbreviation for Decontamination or Contamination Reduction.

Degradation: A chemical action involving the molecular breakdown of a protective clothing material due to contact with a chemical. The term degradation may also refer to the molecular breakdown of the spilled or released material to render it less hazardous.

Department Representative: The person selected by the Chief of a participating fire department as the contact person for the Co-Op response Team to attend regular meetings in order to obtain information, may be called upon to provide input and suggest changes in training, guidelines and equipment purchases.

Disaster: A sudden extraordinary misfortune; an unseen, and often ruinous misfortune, which happens, often suddenly, either through lack of foresight or through some outside agency.

Exposure: The process by which people, animals, the environment and equipment are subject to the harmful action or influence of a hazardous material. The magnitude of exposure is dependent primarily upon the duration of exposure and the concentration of the hazardous material.

First Responder (Awareness): Those persons, who in the course of their normal duties, may be the first on the scene of a hazardous materials incident. They are not expected to take any actions other than to recognize that a hazard exists, secure the area and call for trained personnel.

First Responder (Operations): Those persons, whose duties include responding to the scene of emergencies that may involve hazardous materials. While not expected to use specialized chemical protective clothing or special control equipment, have the ability to:

- (a) make initial hazard and risk analysis
- (b) determine when their protective clothing and equipment is appropriate.
- (c) understand hazardous materials terminology.
- (d) perform control operations within their capabilities.
- (e) understand decontamination procedures.
- (f) perform basic record keeping tasks.
- (g) expand the Incident Command System.

Full protective clothing and equipment: Minimum protection for all personnel operating at the scene of a hazardous materials incident will be full firefighter turnout gear, including helmet, coat, bunker pants, gloves and self-contained positive pressure breathing apparatus. Other specified clothing may be required at varied incidents.

Hazardous Materials: Hazardous materials are defined in the Code of Federal Regulations, Title 49, Parts 100 through 199, as revised. A hazardous materials incident may be defined as one or more of those materials and/or other materials that may be leaking, spilled, burning or have a potential release thereof, that may endanger life, property and/or the environment.

Hazard/Hazardous: Capable of posing an unreasonable risk to health, safety or the environment capable of causing harm.

Hazard Sector: That function of an overall management system that deals with the mitigation of a hazardous materials incident. It is directed by a sector officer and principally deals with the technical aspects of the incident.

Hazardous Materials: (DOT Definition): Any substance or material in a quantity or form which may be harmful or injurious to humans, domestic animals, wildlife, economic crops or property when released into the environment.

Hazardous Material Incident: The involvement of hazardous materials, with or without containment that poses a threat to the health and safety of the public.

Hazardous Material Class/Division: The general category of hazard assigned to a hazardous material under the DOT regulations. The division is a subdivision of a hazard class.

Class 1 (Explosives)

- Division 1.1 Explosion with a mass explosion hazard
- Division 1.2 Explosives with a projection hazard
- Division 1.3 Explosives with predominately a fire hazard
- Division 1.4 Explosives with no significant blast hazard
- Division 1.5 Very insensitive explosives
- Division 1.6 Extremely insensitive explosive articles

Class 2

- Division 2.1 Flammable Gas
- Division 2.2 Non-flammable, non-poisonous compressed gas
- Division 2.3 Poison Gas
- Division 2.4 Corrosive Gas

Class 3

- Flammable Liquid
- Combustible Liquid

Class 4

- Division 4.1 Flammable Solid
- Division 4.2 Spontaneously Combustible Material
- Division 4.3 Dangerous when wet material

Class 5

- Division 5.1 Oxidizer
- Division 5.2 Organic Peroxide

Class 6

- Division 6.1 Poisonous Material
- Division 6.2 Infectious Material

Class 7

- Radioactive Material

Class 8

- Corrosive Material

Class 9

- Miscellaneous hazardous material
- ORM-D Material

Incident Commander (IC): The person responsible for all the decisions relating to the management of the incident. The Incident Commander is in charge of the incident site. This is equivalent to the On Scene Manager as defined by OSHA 1910.120. The IC will be operating under the MABAS incident management system. The Incident Commander should be trained to the level of *Hazardous Materials Incident Command*.

Liquid Splash Protective Clothing: Clothing that protects the wearer against chemical liquid splashes but not against chemical vapors or gases. Liquid splash-protective clothing must meet the requirements of NFPA 1992.

Material Safety Data Sheets (MSDS): A form, provided by manufacturers and compounders of chemicals, containing information about chemical composition, physical and chemical properties, health and safety hazards, emergency response and waste disposal of the material as required by OSHA 1910.1200.

Penetration: The movement of a material through a suit's such as zippers, buttonholes, seams, flaps or other design features of chemical protective clothing, and through punctures, cuts and tears.

Permeation: A Chemical action involving the movement of chemical, on a molecular level, through intact material.

Personal Protective Clothing: The equipment provided to shield or isolate a person from the chemical, physical and thermal hazards that may be encountered at a hazardous materials incident. Personal protective equipment includes both personal protective clothing and respiratory protection. Adequate personal protective equipment should protect the respiratory system, skin, eyes, face, hands, feet, head, body and hearing.

Respiratory Protection: Equipment designed to protect the wearer from the inhalation of contaminants. Respiratory protection is divided into three types:

- a) Positive pressure self-contained breathing apparatus
- b) Positive pressure airline respirators
- c) Air purifying respirators

Response: Will refer to the actual travel of the hazardous materials response vehicle and Response Team personnel to an incident. Responding vehicles will be considered to be in an emergency status and respond with emergency warning equipment.

Response Team Personnel: Personnel, selected by the Fire Chief of a participating fire department who has attained the required level of training. Must be certified pursuant to guidelines promulgated for their level of expertise by the Haz Mat Advisory Committee . Must comply with medical criteria required for that qualification level.

Technical Assistant: Those personnel who possess unique qualifications which may be useful to the response team for specific purposes. This individual may perform assigned duties at the scene of an incident, during training or whenever deemed appropriate by the Incident Commander, or HazMat Command.

Vapor Protective Clothing: Clothing that protects the wearer against chemical vapors and gases. Vapor protective clothing must meet the requirements of NFPA 1991.

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM

SUBJECT: GENERAL INFORMATION

DATE INPLEMENTED: JANUARY 1, 2006

REVISED:

The authority of the Response Team is based in the formation of a not-for-profit group named the Division 24 Hazardous Materials Response Team, in which various members of MABAS Division 24 have joined via the adoption of a resolution by each member of the participating entities.

The Fire Departments from MABAS Division 24 comprise the MABAS 24 Hazardous Materials Response Team. They pay an initial initiation fee and annual stipens to support the team as determine by the MABAS 24 Chief's Association.

These policies and procedural guidelines are written by the SOP Committee and approved by the Advisors Committee of the participating members. This plan provides a basic philosophy and strategic plan for hazardous materials incidents. All policies and guidelines, unless otherwise superseded by a specific part of this plan, remain in effect for hazardous materials incidents.

The Division 24 Haz Mat Team is intended to provide assistance to those communities of the participating member departments. The Division 24 Haz Mat Team also recognizes participation in MABAS inter-divisional haz mat responses, as requested.

Participation Requirements

- ❖ Each department in the division will contribute a one-time initial fee and an annual assessment. The amount will be determined by the Chief's Association under the advice of the advisors committee.
- ❖ Each department may provide trained personnel as team members for the Team. This will insure preparedness for primary and mutual aid hazardous material incidents.
- ❖ Each division 24 department is required to have available, on an initial response apparatus, an adequate supply of equipment and manpower for support of the Haz Mat team.

Participating departments are reminded that the haz mat response team may be requested if

- ❖ additional trained personnel are required.
- ❖ equipment and/or resources are required to control or mitigate the haz mat incident.
- ❖ technical assistance is needed.

The objectives of the Division 24 Haz Mat Team are to provide additional

- ❖ mitigation equipment and personnel
- ❖ communication capabilities
- ❖ reference materials
- ❖ hazardous material technical advisors

These guidelines are meant to serve the Incident Commander and the Advisors in meeting most appropriate objectives.

It is not the intent of this Team to provide clean up functions. Commercially licensed companies are available for those types of emergency services. At no time is any portion of this Team to take possession of any hazardous materials or substances. Nor is it the recommendation of this Team that any authority having jurisdiction take possession of any form of hazardous materials or hazardous materials waste.

Hazardous Materials incidents encompass a wide variety of potential situations including fires, spills, transportation accidents, chemical reactions, explosions and similar events. Hazards involved may include toxicity, flammability, radiological hazards, corrosives, explosives, health hazards, chemical reactions and any combination of factors. This plan provides a general framework for handling a hazardous materials incident but does not address the specific tactics or control measures for particular incidents.

Every field incident presents the potential for exposure to hazardous materials even during an ordinary fire. The products of combustion may also present severe hazards to the safety of personnel.

This procedure is specifically applicable to known hazardous material incidents, but does not reduce the need for appropriate safety precautions at every incident. The use of proper protective clothing and SCBA wherever required and the utilization of all guidelines on a continuing basis, is the starting point for this plan.

SUBJECT: FEE FOR SERVICES

DATE IMPLEMENTED: JANUARY 1, 2006 REVISED:

Immediately after the incident requiring a Haz Mat Team response, the equipment committee chairman will issue an invoice to the spiller. Municipalities participating in the team, through the stipends, will not pay for services if a spiller can not be identified or if the spill is that of the municipality. Standard billing rates established by the advisors committee will prevail.

SUBJECT: RECOMMENDED MINIMUM AVAILABLE EQUIPMENT LIST FOR THE TEAM

DATE IMPLEMENTED: JANUARY 1, 2006 REVISED:

The equipment carried by the team will meet or exceed the current requirements of the State on Illinois and MABAS to meet the standard requirements of a Level A Team.

SUBJECT: ADVISORS COMMITTEE

DATE IMPLEMENTED: JANUARY 1, 2006 REVISED:

POLICY: To establish and maintain a comprehensive cooperative hazardous materials response entity as a regionally organized Haz Mat Team, consisting of MABAS Division 24 Fire Departments.

A. The Chairperson for the Committee will be a member of the team and appointed by the MABAS 24 Chiefs Association

B. The Advisors Committee shall be comprised of eight members of the Division 24 Hazardous Materials Response Team, including the chair.

C. The members of the committee should be trained to the level of Haz Mat Incident Command.

SUBJECT: DUTIES OF THE ADVISORS COMMITTEE

DATE IMPLEMENTED: January 1, 2006

REVISED:

POLICY: The Executive Committee will:

- respond to all request for advice from member departments.
- respond to all box and/or second hazmat alarms.
- disseminate information from the Committee to the MABAS 24 Chiefs association.
- attend the monthly Committee meetings.
- make recommendations regarding training, vehicles, EMS and equipment.
- confer with other committee members to resolve problems and coordinate activities.
- plan, develop and establish policies, procedures and guidelines.
- submit an annual budget to the MABAS 24 Chiefs Association.
- conduct studies and prepare reports as necessary.
- insure vehicles and equipment are maintained .
- insure that billing for services takes place
- establish goals and objectives for the team.

SUBJECT: IDENTIFICATION CARD GUIDELINE

DATE IMPLEMENTED: January 1, 2006: Revised:

Every Haz Mat Response Team Member will be issued an identification (ID) Card and orange passport tags.

This ID card must be carried on each team member responding to Haz Mat alarm incidents. Upon arrival at the scene of the incident, members will report in person to the staging area and be checked in by the Staging Officer. Under no circumstances will any team members be allowed to function on the scene of a Haz Mat incident without possessing the proper identification card and or orange passport tags. Haz Mat Command will insure directly or by delegation that each team member turns in two tags to the command post. The tags will be used for accountability and job assignments. It is the responsibility of each member to turn the tags in when arriving at the command post.

SUBJECT: TRAINING

DATE IMPLEMENTED: JANUARY 1, 2006

REVISED:

It is the intent of the Team that all members of each department will train and certify their members to the Hazardous Materials Operations level.. Team members will be trained to the Tech A level or better.

POLICY: Minimum training will be established as continuing education for the Hazardous Material Technician as set forth by the Office of the Illinois State Fire Marshal and in accordance with The National Fire Protection Association Standard 472, (*2002* Edition).

GUIDELINE:

1. Training sessions will be once per month.
2. At least one (1) training session during the year will be full-scale drill.
3. Some flexibility should be allowed in order to accommodate holiday schedules, training, props and/or instructors availability and shift schedules. Starting times for full-scale drills will be announced.
4. All team members are required to attend a minimum of six (8) training sessions.
5. It is the intent of the training committee to rotate the training sites throughout the participating fire departments
6. It will be the responsibility of each Team member fire department to ensure that their team members attend the training sessions.
7. An annual training attendance report for each department will be forwarded to the Chief of that department.

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM

SUBJECT: VEHICLES AND EQUIPMENT

DATE IMPLEMENTED: JANUARY 1, 1992 REVISED: May 17, 2002

POLICY: Preparedness of the Haz Mat Vehicle and equipment shall be maintained to have an effective response for additional equipment.

Hazardous Material Response Vehicles, MABAS 24 Chiefs Association, will be housed at a location selected and approved by the Advisors Committee. Cost for maintenance, insurance, and repairs will be absorbed by the MABAS 24 Chiefs Association

All repairs made to the vehicles or equipment as well as damages sustained to the vehicle or equipment should be reported to the Advisor in charge of maintenance, with a copy forwarded to the Chairperson of the Committee. Maintenance records, both preventive and repairs, will be maintained by the MABAS 24 Hazardous Materials Team.

GUIDELINE:

1. The number designations of the Hazardous Materials Vehicles are 9901 and 9902.
2. The Haz Mat Vehicle will be housed and maintained as approved by the Advisors Committee.
3. An equipment list shall be located on the vehicle, identifying the location of each piece of equipment. A copy will be maintained at the station.
4. It is the responsibility of the advisor in charge of supplies to replace any equipment or supplies that are used, damaged, lost or rendered unusable after any training or incident as soon as possible based on equipment availability.
5. All suggestions or recommendations for additional equipment or changes in equipment for the Haz Mat Vehicle shall be submitted in writing to the Haz Mat Committee Chairperson.

Team members shall not be released from the scene of an incident or training session until 9901 and 9902 have been returned to a *ready to respond* mode. It will be the responsibility of Haz Mat Command to secure the cooperation of all team members present. *The vehicle must be returned to full response condition whenever it has been used. If there are any reasons this cannot be done, the Chairperson must be notified immediately.*

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM

SUBJECT: REQUEST/RESPONSE OF HAZ MAT TEAM

DATE IMPLEMENTED: JANUARY 1, 2006

REVISED:

POLICY: A fire department may request the Haz-Mat Team if the size or complexity of the incident requires such a need.

GUIDELINE:

1. Incident Commander (IC) determines the need for the Haz-Mat Team
2. The IC contacts MABAS 24 via radio and requests Haz Mat Box __ 99 to the BOX alarm level. *The safest direction of approach shall be provided. This will summon the Advisors*
3. If there is a need for the entire team a second alarm will be called by the IC and appropriate dispatched by MABAS 24.
4. MABAS 24 dispatch will then activate the Division 24 MABAS tone and requests the appropriate equipment and personnel designated on the box card for the desired alarm level.

The following information should be given.

- A. The Fire Department requesting the Haz Mat Box Alarm.
 - B. Location of the incident (street address).
 - C. Safest Direction of Approach.
 - D. Command Post Location.
 - E. Staging Area Location.
 - F. Type of Incident.
4. Responding team members shall use a fire department vehicle, when possible, and respond with full turnout gear, identification card and passport, in accordance with MABAS guidelines.
 5. Upon arrival, all team members shall report to the STAGING area unless otherwise directed.
 6. Identification Passports must be presented at the scene.

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM

SUBJECT: BOX CARD __ 99 and MABAS RESPONSE GUIDELINES

DATE IMPLEMENTED: JANUARY 1, 2006

REVISED:

The Incident Commander from the stricken department shall determine the response needed. It will be expected that the Fire Department of the stricken community provides the following when activating the Division 24 Hazardous Material Box Alarm:

MICU Minimum of one (1) must be *assigned to the Haz Mat Sector*.
WATER SUPPLY One, preferably two, reliable supplies must be secured.
PERSONNEL Community shall commit on duty and off duty personnel as required.
RESOURCES As requested by Haz Mat Command.

BOX NUMBER: __99 Haz Mat BOX for Advisors ONLY

STILL: THE FIRE DEPARTMENT OF THE STRICKEN COMMUNITY
BOX: THE HAZMAT ADVISORS

SECOND ALARM BOX NUMBER: __99 Haz Mat Team and equipment

STILL: LOCAL FIRE DEPARTMENT
BOX: ADVISORS
2ND: ALL AVAILABLE TEAM MEMBERS and Equipment plus dedicated ambulance

The Incident Commander shall request mutual aid response for fire apparatus and EMS in accordance with MABAS guidelines. It should be stressed that it is essential for all incoming units to be advised of direction of approach. Units will report directly to the staging area unless otherwise directed by the Incident Commander.

I. PURPOSE FOR REQUESTING Haz Mat BOX __ 99

Response of the hazardous advisors:

- ❖ the Incident Commander requests Technical assistance

In all cases, the Incident Commander from the stricken town shall remain responsible for the entire hazardous material incident. A member of the Haz Mat Team shall *not* assume the Incident Commander position, unless requested by the Incident Commander of that stricken community.

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM

II. REQUESTING A 2nd ALARM for BOX __ 99

NOTIFICATION GUIDELINE:

- ❖ The Incident Commander determines the need for the haz mat team.
- ❖ The Incident Commander notifies local dispatch center and requests a Haz Mat Box __ 99
- ❖ The Incident Commander shall give the safest direction of approach.
- ❖ MABAS 24 dispatch will transmit the alarm and initiate the alpha paging system with the following information
 - a) Department requesting the Box Alarm (level).
 - b) Location of the incident.
 - c) Direction of approach.
 - d) Command Post location.
 - e) Staging area.
 - f) Type of incident.

HAZ MAT VEHICLES:

When the Haz Mat Vehicles are dispatched, at least one (1) fire fighter per unit from the department housing it, will respond. This fire fighter may or may not be trained above the level of Operations. The driver may be requested assume the Equipment sector and report to Haz Mat Command upon arrival on the scene, unless otherwise assigned.

- ❖ *All responding vehicles* shall follow normal guidelines for emergency responses.
- ❖ The driver will be in charge of the distribution and documentation of all equipment issued from the Haz Mat Vehicle at the scene of the incident.
- ❖ In general, only the equipment sector is to issue equipment from the Haz Mat Vehicle.
- ❖ The driver shall remain on the scene until the Haz Mat Vehicles released by Command.
- ❖ The equipment sector will be responsible for giving the list of equipment used to the Haz Mat Command or his representative.

RESPONDING TECHNICIANS and VEHICLES

HazMat members responding shall give their radio number and the number of personnel responding. Personnel responding shall use a fire department vehicle, when possible, and respond with full protective clothing. All personnel shall respond to the staging area and report to the Staging Officer with their passport accountability device.

On various alarm levels, pre-determined support **vehicles** will respond.

All responses to Division 24 Haz Mat incidents will be in accordance with MABAS guidelines.

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM

SUBJECT: INCIDENT COMMAND

DATE IMPLEMENTED: JANUARY 1, 2001

REVISED:

POLICY: An Incident Command System shall be established. The purpose of an incident command system is to provide structure and coordination to the management of emergency incident operations in order to provide for the safety and health of fire department members and other persons involved in those activities.

The incident command system shall provide a series of supervisory levels that are available for implementation to create a command structure. The particular levels to be utilized shall depend on the nature of the incident, scale and complexity of the mitigation activities at the scene.

The Incident Commander is the one person with the overall authority and responsibility for the incident and should be trained to the level of *Hazardous Materials Incident Command*.

GUIDELINE:

1. The Incident Commander (IC) shall be from the jurisdiction of which the incident has occurred
2. The Incident Commander shall appoint a Haz Mat Command group officer.
3. The Incident Commander shall size up the incident.
4. The Incident Commander shall establish a Command Post and remain at the Command Post throughout the incident.
5. The Incident Commander shall assign divisions/groups as needed, including Haz Mat Command and other division/group officers as required.
6. The IC shall establish the initial Hot and Cold Zones by utilizing the Isolation and Evacuation Tables from the DOT Emergency Response Guidebook.
7. After the size up, Command shall develop and initiate a plan of action. The plan of action shall be reviewed, revised and updated as needed.
8. The Incident Commander shall assign an ALS ambulance to the Haz-Mat *group Officer*. *This ambulance and its personnel are not to be used for hospital transportation unless absolutely necessary.*
9. The Incident Commander shall be the individual that strikes the box for the Haz Mat Response Team.
10. The Incident Commander is responsible to cause a post-incident critique of the entire incident if they so desire..

SUBJECT: COMMAND POST

DATE IMPLEMENTED: JANUARY 1,2006

REVISED:

POLICY: The Location of the Command Post shall be determined by the Incident Commander.

GUIDELINE:

1. The initial Command Post shall be the first arriving engine on the scene and upgraded as needed.
2. The Command Post shall be located in the Cold Zone to ensure survivability, command and control.
3. The location of the Command Post shall be relayed to MABAS 24
4. The Command Post shall be identified by a flashing green light.
5. Guidelines for Division 24 *Command Post for Fire Ground* should be adhered to.
6. The Communication Officer at the Command Post will communicate with all assigned division/group officers, with assistance from the Operation group Officers if established.

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM

SUBJECT: STATE NOTIFICATION REQUIREMENTS

DATE IMPLEMENTED: JANUARY 1, 2006

REVISED:

The Incident Commander of the stricken community must notify the Illinois Emergency Management Agency (800-782-7860) if a hazardous materials incident occurs where:

-- A member of the general public is killed

- A member of the general public requires hospitalization
- A radiological agent is involved
- An etiologic agent is involved
- An authorized official recommends evacuation to the general public
- A release occurs which equals or exceeds the Reported Quantity (RQ) for any designated material (determined by CFR Title 49)
- A release occurs which threatens or contaminates surface waters
- A placard container is damaged to the point where a release is likely to occur that could produce any of the above situations
- A placard motor vehicle has overturned on a public highway
- A rail car containing hazardous materials has sustained or may sustain damage as a result of an accident

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM
SUBJECT: SIZE UP

DATE IMPLEMENTED: JANUARY 1, 2006

REVISED:

Command must make a careful size-up before deciding on a commitment. It may be necessary to take immediate action to make a rescue or evacuate an area, however, this should be done with an awareness of the risk to personnel and taking advantage of available protective equipment.

The objective of the size-up is to identify the nature and severity of the immediate problem and gather sufficient information to formulate a valid action plan. A hazardous material incident requires a cautious and more deliberate size-up than most fire situations. The following factors should be considered:

1. Type of incident such as: fire, leak, release or spill.
2. Harmful nature of the material (s).
3. Type and conditions of the containers.
4. Conditions such as: location, time and weather.
5. Exposures to: life, the environment, fire department equipment and/or property.
6. Resources

Avoid premature commitment of companies and personnel to potentially hazardous locations. Proceed with caution in evaluating risks before formulating a plan and keep uncommitted companies at a safe distance.

Identify a hazardous area based on potential danger, taking into account materials involved, time of day, wind, weather conditions, location of the incident and degree of risk to unprotected personnel. If possible, take immediate action to evacuate and/or rescue persons in danger providing for the safety of the rescuers at all times.

In most cases, the major problem is to properly identify the type of materials involved in a situation and the hazards associated with them before formulating a plan of action. Look for labels, markers, and shipping papers. Refer to pre-fire plans and ask personnel at the scene including plant management, the responsible party, truck drivers and/or fire department specialists for additional information.

Utilize reference materials carried on the apparatus and contact other sources for assistance in sizing up the problem (i.e. Chemtrec, National Response Center, fire department specialists, manufacturers of material, etc.).

**MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM
SUBJECT: NINE STEP PROCESS TO HAZARDOUS MATERIALS INCIDENT
MANAGEMENT.**

DATE IMPLEMENTED: JANUARY 1, 2006

REVISED:

Hazardous materials are intended to be maintained in a safe condition through confinement in protective containers. Emergencies usually occur when the material escapes from the protective container or systems, creating a hazardous condition.

During a hazardous materials emergency, Haz Mat Command will utilize the *Nine Step Process*. to safely mitigate the incident and return the site to normal conditions. The *Nine Step Process* requires decisions on how to get the hazardous material safely into a proper container, what neutralizing agents to use, how to dissolve the product or whether to allow it to dissipate safely. At times, it may be necessary to evacuate and wait for special equipment or technical expertise.

Nine Step Process

1. Site Management.
2. Identification of Material.
3. Hazard and Risk Assessment.
4. Selection of Protective Clothing.
5. Information Resource Coordination.
6. Product Control and Confinement.
7. Decontamination.
8. Re-evaluation of Activities.
9. Termination Activities.

The strategical plan must identify the method of hazard control and the resources required to accomplish this goal. It may be necessary to select one method over another due to the unavailability of a particular resource or to adopt a "holding action" while waiting for needed equipment or technical assistance.

As a general policy, the response team will be assigned to any situation involving a direct contact with hazardous materials. The overall strategy must provide for:

1. Safety of citizens
2. Safety of emergency response personnel
3. Evacuation of endangered areas
4. Meeting objectives
5. Prevailing over unforeseen conditions
6. Stabilizing hazardous materials
7. Disposal or removal of hazardous materials
8. Returning the environment to normal conditions

**MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM
SUBJECT: PLAN OF ACTION**

DATE IMPLEMENTED: JANUARY 1, 2006

REVISED:

POLICY: After size up, a plan of action shall be established. This plan may include offensive and/or defensive strategies. The safety of all response personnel must be foremost in this plan. Objectives must be determined according to the situation and the capabilities and limitations of response personnel.

Action Plan Steps

1. Rescue of endangered or injured persons, if possible.
2. Protect exposures.
3. Prevent container failure.
4. Confine, contain and neutralize the hazard.
5. Extinguish ignited material.
6. Use additional resources.
7. Update weather conditions every fifteen (15) minutes.

Select the most feasible, safest plan of action for the time and personnel available. To properly formulate the best plan of action, the problem (s) must be identified by considering:

1. Where is the incident in relation to the population and property exposures?
2. What are the hazardous materials?
3. What commodity hazard classes are involved?
4. What quantities are involved?
5. How could the material react?
6. Is it in a liquid, solid or gas form?
7. Is the product involved in fire or being affected by heat?
8. What type of container is the product in?
9. What is the condition of the container?
10. How much time has elapsed since the incident began?
11. What are the limitations of the personnel and equipment?
12. Is there other help available?
13. What effect can weather conditions cause?
14. What has already been done?
15. What resources are available?

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM

SUBJECT: COMMUNICATIONS

DATE IMPLEMENTED: JANUARY 1, 2006 REVISED : May 17, 2002

Effective communication will be a component of successful mitigation of any hazardous materials incident. The following is a breakdown of radio frequency assignments and how they can be used at an incident:

1. Mitigation Team will use the designated radio frequency for entry team personnel.
2. Division/group officers shall utilize the assigned frequency to communicate with each other and command.
3. Local fire frequency, MABAS 24, will be used to provide routine communication between the Command Post and dispatch.
4. IFERN (MABAS) will be used to provide for the usual dispatch and communication between the Incident Commander all responding units.

SUBJECT: GUIDELINE FOR LOCAL COMMUNICATION CENTERS

DATE IMPLEMENTED: JANUARY 1, 1992 REVISED:

On initial phone call, local dispatchers should try to get the following information:

1. Identification of the caller and call back number.
2. Exact location of incident.
3. Basic description of what occurred.
4. Type of Container.
5. Identification of vehicle, building or object involved.
6. Name and amount of product or material involved and/or physical description such as solid, liquid or gas. *Correct spelling is crucial.*
7. Approximate time that the incident occurred.
8. An approximate number of injured, if applicable.
9. If the emergency involves a vehicle accident, try to determine the type of vehicle and type of accident.
10. Get a weather update (wind direction, speed, temperature and relative humidity).

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM

SUBJECT: HAZARDOUS MATERIALS (HAZ MAT) COMMAND

DATE IMPLEMENTED: JANUARY 1, 2006 REVISED:

POLICY: The Haz Mat Command Officer will notify the Incident Commander of his identity. The Haz Mat Command Officer is responsible for all of the activities of the Haz Mat Sector. The Haz Mat Command Officer must be certified in HAZMAT Command. The Haz Mat Command Officer will report directly to the Incident Commander *at all times*.

GUIDELINE:

1. Receive briefing from Incident Commander of stricken community and reassess all safety zones and continue to secure the area.
 - a) Secure advanced life support ambulance for entry and exit examinations for Haz Mat Team Members.
 - b) Determine the need for evacuation.
2. Assign Haz Mat Safety Officer
3. Assign Access Control Officer
4. Assign Haz Mat Science Officer
5. Assign Decon Officer
6. Assign Entry Officer
7. Assign Haz Mat EMS Officer
8. Assign Haz Mat Logistics Officer
9. Brief all Sector Officers of strategic goals.
10. Complete the following documents from the *Emergency Response Plan*:

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM

SUBJECT: Haz Mat COMMAND OFFICER CHECKLIST

DATE IMPLEMENTED: JANUARY 1, 2006 REVISED:

- Don Haz Mat Command Officer's Vest
- Determine need for evacuation
- Assign Aides as needed
- See that all Haz-Mat Radios are on proper channel
- Establish Haz Mat Command Post
- Receive updated weather conditions from Reference Officer as needed.
- Modify the initial zones if necessary.
- Assign Safety Officer

- Assign Science Officer
- Assign Decon Officer
- Assign Entry Officer
- Assign EMS Officer
- Assign Logistics Officer
- Brief all Sector Officers of strategic goals and inform Incident Command
- Determine need for outside agencies
- Determine need for additional resources
- Continuously assess progress and evaluate tactics
- Assemble documentation and reports from all sector officers
- Prepare written summary of activities and submit to Incident Command.

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM
SUBJECT: HAZARDOUS MATERIALS SAFETY OFFICER

DATE IMPLEMENTED: JANUARY 1, 2006 REVISED:

POLICY: The technician assuming the duties of Haz Mat Safety Officer shall be at least a Haz Mat Technician and meet or exceed the requirements for Safety Officer as specified in NFPA 1501.

The Haz Mat Safety Officer monitors the activities of the Hot Zone and decontamination area. When activities in any area are judged to be unsafe and/or may become dangerous, the Haz Mat Safety Officer shall have the authority to alter, suspend or terminate those activities. The Haz Mat Safety Officer shall immediately inform Haz Mat Command of any actions taken.

GUIDELINE:

1. The Safety Officer shall provide Haz Mat Command with recommendations on the establishment of the control zones at each emergency incident, based on the identification and evaluation of the hazards.
2. The Safety Officer should make the final decision on entry/no entry, corrective actions, respiratory and personnel protective clothing, monitoring and sampling, methods and *when* personnel shall withdraw or evacuate.
3. The Safety Officer shall make sure proper decontamination guidelines are in place prior to entry.
4. The Safety Officer should ensure that all other elements of safety are in place.
5. The Safety Officer shall ensure that all pertinent information is gathered and recorded. Pertinent documents, manifests and reports shall be collected.
6. Complete the following components of the Emergency Response Plan and return to Haz Mat Command upon termination of the Hazardous Materials Incident.
 - a) Isolation Sheets.
 - b) Monitoring Sheet .
 - c) Instrument Limitations .

Authority: When the Haz Mat Safety Officer considers any activity at an emergency incident to be unsafe and to involve an imminent hazard, the **Haz Mat Safety Officer shall have the authority to alter, suspend or terminate those activities.** The Haz Mat Safety Officer shall immediately inform Haz Mat Command of any actions taken to correct imminent hazards at an emergency incident. (NFPA 1501, 2-3.3)

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM

SUBJECT: HAZARDOUS MATERIAL SAFETY OFFICER CHECKLIST

DATE IMPLEMENTED: JANUARY 1, 2006 REVISED:

- Obtain briefing from Haz Mat Command
- Don Haz Mat Safety Officer vest.
- Assign aides as needed.
- Make a size-up of the incident and report to the Haz Mat Command.
- Determine the type of incident by completing the Incident Run Sheet.

- State of material _____
- Type of release _____
- Type of vessel _____
- Type of container _____
- Other _____
- Additional _____

- Establish safe area or make changes to existing Control Zones and monitor all work activities for safety
- Determine level of protection to be worn in all areas.
- Determine monitoring equipment to be used (minimum of two (2)).
- Update Haz Mat Command.
- Prepare written summary of activities, complete all appropriate forms and submit to Haz Mat Command upon completion of hazardous material incident.

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM

SUBJECT: HAZARDOUS MATERIALS LOGISTICS OFFICER

DATE IMPLEMENTED: JANUARY 1, 2006

REVISED:

POLICY: The Logistics Officer is responsible for obtaining additional resources as requested by any Haz Mat Sector Officers. Requests for equipment must be transmitted to Haz Mat Command *first*, who in turn will obtain the request approval from the Incident Commander of the stricken community.

The primary responsibility of the Logistics Officer will be to determine the resources required by all division/group officers and assemble requested equipment. Additionally, assist with the development of the inventory list of equipment used. Develop a list of supplies used on the scene by the Haz Mat Group.

Obtain drinking water for entry personnel as requested.

Coordinate return of decontaminated and unused equipment to their proper location or vehicle. Should work closely with the equipment group officer.

The Logistics Officer will prepare a written summary of activities and submit to Haz Mat Command. This should include any purchase orders issued from Division 24 Haz Mat.

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM

SUBJECT: LOGISTICS SECTOR CHECKLIST

DATE IMPLEMENTED: January 1, 2006

REVISED:

The primary responsibility of the Resource Officer is to procure any and all equipment for HAZ MAT sectors, when requested by Haz Mat Command.

- Don Resource Sector identification vest
- Determine resources required by all sector officers.
- Assemble equipment where needed.
- Develop inventory of equipment used and identify ownership.
- Obtain water for drinking as requested.
- Develop list of equipment expended from all haz mat units.
- Develop a list of supplies used on the scene by the Haz Mat Sector
- Coordinate return of decontaminated and unused equipment to haz mat units.
- Work closely with the Equipment Sector to ensure readiness of haz mat units.
- Prepare written summary of activities and submit to Haz Mat Command.

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM

SUBJECT: EQUIPMENT OFFICER

DATE IMPLEMENTED: January 1, 2006

REVISED:

POLICY: The driver of Hazardous Materials Response Vehicle 9901 will assume the Equipment Officer unless otherwise assigned by Haz Mat Command. It will be the responsibility of the Equipment Group to prepare 9901 for a "ready-to-respond" status immediately after the conclusion of the hazardous materials incident. A list of any discarded or destroyed equipment will be forwarded to Haz Mat Command after the incident has terminated.

Prepare a written summary of activities and submit it to Haz Mat Command. Complete all required reports and records of equipment used on 9901.

The driver of Hazardous Materials Response Vehicle 9902 will assume responsibility for the distribution and record keeping of all equipment used off that vehicle unless otherwise assigned by Haz Mat Command. It will be the responsibility of the driver to prepare 9902 for a "ready-to-respond" status immediately after the conclusion of the hazardous materials incident. A list of any discarded or destroyed equipment will be forwarded to the Equipment Officer after the incident has terminated

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM

SUBJECT: EQUIPMENT OFFICER CHECKLIST

DATE IMPLEMENTED: January 1, 2006

REVISED:

- Obtain briefing from Haz Mat Command
- Don Equipment Officer Vest
- Park 9901/9902 in location designated by Haz Mat Command
 - Document all equipment distributed from 9901/9902
 - what equipment is removed
 - who that equipment was distributed to
- Ensure that all equipment has been returned to 9901/9902 and is placed in position according to previous designation.

- Complete and submit all required forms to Haz Mat Command

- Identify information regarding equipment that has been:
 - destroyed during the incident
 - needing to be decontaminated from an outside agency
 - lost during the incident
 - left at the scene to be recovered later
 - other reasons equipment cannot be returned to 9901/9902

- Submit information list to Haz Mat Command

**MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM
SUBJECT: DECONTAMINATION (DECON) OFFICER**

DATE IMPLEMENTED: JANUARY 1, 2006

REVISED:

POLICY: The Decon Officer gathers equipment and personnel for decontamination activities. Decon will be set up in an upwind, up-terrain manner with one (1) entrance and one (1) exit.

GUIDELINE:

1. Obtain briefing from Haz Mat Command.
2. Determine correct level of protection for Decon personnel.
3. Identify Decon solution and method of Decon from Reference Sector.
4. Establish Decon site.
5. Set up Decon.
6. All personnel required to wear personal protective equipment, must complete physical assessment by EMS sector prior to working in DECON Sector.
7. Terminate Decon sector in accordance with *Decon Termination Procedures*
8. Complete the Decon Data Sheet of the Emergency Response Plan , and forward to Haz Mat Command.

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM

SUBJECT: CHECKLIST FOR DECON SECTOR

DATE IMPLEMENTED: JANUARY 1, 2006

REVISED:

- Obtain briefing from Haz Mat Command.
- Determine location of Decon Sector by conferring with Safety Officer.
- Form Decon Team of Team Members or responding communities who are at least Operations level certified.
- All Decon team members wearing encapsulated suits must complete on site assessment by EMS Sector (See Site Safety Plan).
- Remove all necessary equipment from vehicle.
- Construct Decon area.
- Use as many safety cones as needed to mark and isolate the Decon area.
- Determine decontamination solution required by contacting the Reference Sector.
- Gather the entire Decon Team together and discuss the proper guidelines.
- Notify Haz Mat Command and Safety Officer when Decon Sector is operational.
- Review Decon Termination guidelines.
- Do not remove contaminated product (recovery drums) from the Decon Sector.
- Submit summary of activities and Emergency Response Plan to Haz Mat Command.

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM
SUBJECT: DECONTAMINATION - CONTAMINATION REDUCTION GUIDELINE

The Six (6) levels of decontamination are:

- Level A: Light hazard.
- Level B: Medium hazard.
- Level C: Extreme hazard.
- Level D: Water reactive products.
- Level E: Etiologic agents.
- Level R: Radioactive materials.

The nine (9) step process:

1. Entry team personnel enter decontamination area:
 - a) Drop tools and equipment.
 - b) Excess product should be removed if possible.
2. Step into first pool and shower:
 - a) This should be done closest to the Hot Zone.
 - b) This will remove most of the product
3. Step into second pool:
 - a) Use decontamination solutions in spray cans and brushes/sponges.
 - b) Rinse suits off with low-pressure spray wands.
 - c) Pump excessive product from pools if necessary.
4. Step into Warm Zone, third pool:
 - a) Decon team will wash suits with brushes/sponges.
 - b) Decon solution will be applied with spray cans.
 - c) Rinse suits off with low-pressure spray.
 - d) Towel dry suits.
 - e) Decon team will remove excessive product from pool.

DECONTAMINATION GUIDELINES CONTINUED:

5. Remove outer protection:
 - a) Remove boots.
 - b) Remove suit with outer gloves still attached.
 - c) Bag all outerwear protection.

6. SCBA
 - a) Remove SCBA
 - b) OR, Service SCBA for re-entry (must complete medical re-assessment)

7. Remove personal protective clothing, worn under encapsulated suit (if applicable):
 - a) Remove cotton gloves.
 - b) Remove nomex hood.
 - c) Remove flame-retardant jumpsuit.
 - d) Bag all items for disposal or decontamination.

1. Put on clean clothing:
 - a) Remove uniform if necessary.
 - b) Dress in regular coveralls.

2. Medical assessment (Exposure Log attached)
 - a) Enter medical rehabilitation (Rehab) sector.
 - b) Complete medical assessment.
 - c) Transport to hospital if necessary.

The decontamination area must begin at the Hot Zone and end at the start of the Cold Zone. The area will be divided into three (3) clearly marked sections in order to isolate each level of contamination. All product runoff from Decon pools must be retained in salvage drums and left on scene for pick-up by a licensed hazardous material waste hauler.

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM

SUBJECT: DECONTAMINATION GUIDELINES

DATE IMPLEMENTED: JANUARY 1, 2006 REVISED:

POLICY: Decontamination is the process of making a chemical less dangerous. This process is done by degradation, dilution, neutralization and/or the physical removal of a chemical. Decontamination shall be established and shall be operational before personnel enter the restricted (Hot) zone during confirmed or suspected hazardous material incidents.

If proper decontamination will be too difficult because the hazardous material is beyond the capability of the Decon sector, strong consideration should be given to request the Division 10 decon trailer. However, the response time for this trailer should be considered especially when victims or potential victims require immediate gross decontamination.

GUIDELINE:

1. Haz Mat Command shall assign an individual as Decon Officer.
2. The Decon Officer shall confer with the Science Officer to obtain the appropriate decontamination solutions.
3. The decontamination area shall be located uphill and upwind in the Warm Zone, at the designated entrance and egress points of the incident.
4. Decontamination personnel shall wear the appropriate level of Personal Protective equipment including respiratory protection.
5. Personnel shall control all water and solutions by using pools, dikes and basins to prevent environmental pollution.
6. All items that are contaminated or suspected to be contaminated, shall be placed in plastic bags or recovery drums.
7. The normal decontamination solution shall be soap and water. Victims *must be* decontaminated as much as possible at the scene.

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM

SUBJECT: DECON SOLUTIONS

DATE IMPLEMENTED: JANUARY 1, 2006

REVISED:

POLICY: Guidelines for preparing decontamination solutions should be obtained from the Reference Sector.

GUIDELINE:

I. When dealing with unknowns under emergency conditions: Decontamination solutions are normally solutions of water and chemical compounds designed to react with and neutralize specific contaminants. The temperature of the liquid and contact time should be given consideration to be sure complete neutralization has taken place. In some cases firefighters may be faced with an unknown hazardous material and will require decontamination after leaving the Hot Zone. The following solutions should be used for unknowns since they are effective for a variety of contaminants:

DECON SOLUTION A: A solution containing 5% sodium Carbonate (Na_2CO_3) and 5% Trisodium Phosphate (Na_3PO_4).

Mix 6.4 oz. each to one (1) gallon of water.

DECON SOLUTION B: A solution containing Sodium Hypochlorite (Bleach). Mix 25.5 oz. to one (1) gallon of water.

A general-purpose rinse solution for both decontamination solutions is a 5% solution of Trisodium phosphate. To prepare the rinse, mix 6.4 oz. to one (1) gallon of water.

II. Decon Using Degradation Chemicals for Known Materials:

Five (5) general purpose decontamination solutions are available for ten (10) basic hazardous classes. These are:

DECON SOLUTION A: A solution containing 5% sodium Carbonate (Na_2CO_3) and 5% Trisodium Phosphate (Na_3PO_4). Mix 6.4 oz. each to one (1) gallon of water.

DECON SOLUTION B: A solution containing Sodium Hypochlorite (Bleach). Mix 25.5 oz. to one (1) gallon of water. Stir with a wooden or plastic mixer.

DECON SOLUTION C: A solution containing 5% trisodium phosphate (Na_3PO_4). This solution can also be used as a general purpose rinse. Mix 6.4 oz. to one (1) gallon of water.

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM

DECONTAMINATION SOLUTIONS CONTINUED:

DECONSOLUTION D: A dilute solution of hydrochloric acid (HCl). Mix 6.4 oz. to one (1) gallon of water. Stir with a wooden or plastic mixer.

DECON SOLUTION E: A concentrated solution of Tide or other detergent and water. Mix into a paste and scrub with a brush. Rinse with water.

DECON SOLUTION R: Soap (non-oxidizing type) and water

The following chart should be used as a guideline for selecting degradation chemicals for the type of hazard identified:

Decon Solution A: Inorganic acids, metal processing wastes, PCB's and PBB's Solvents and organic compounds such as Trichlorethylene, Chloroform and Toluene.

Decon Solution B: Heavy metals, mercury, lead, cadmium, etc., pesticides, chlorinated phenols, dioxins and PCB's, Cyanides, ammonia and other non-acidic inorganic wastes, Etiologic Agents.

Decon Solution C: Solvents and organic compounds such as Trichlorethylene, Chloroform, Toluene, PBB's and PCB's, Oily, greasy unspecified wastes not suspected to be contaminated with pesticides.

Decon Solution D: Inorganic bases, alkali and caustic wastes.

Decon Solution E: Etiologic Agents, all equipment (except leather, which is burned)

Decon Solution R: Radioactive Materials

Information for this Subject was obtained from: San Francisco Fire Department Decontamination Guidelines; Hazardous Materials Incident Response Operations, U.S. Environmental Protection Agency Training Manual, Unit 3, 1981; U.S. Army Medical Science Department, Aberdeen Proving Ground, Maryland; Radiological Handbook, U.S. Department of Health, Education and Welfare.

CAUTION: The decontamination solutions listed above are recommended for ten (10) general groups of hazardous materials. Always contact expert assistance from manufacturers, poison control centers, medical specialists, etc., to determine the best solution to use.

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM

SUBJECT: ZONES OF THE DECON SECTOR

DATE IMPLEMENTED: JANUARY 1, 2006

REVISED:

SECTION 1:

HOT ZONE OF THE DECON SECTOR - STEPS 1, 2 and 3:

1. No Decon team members will be in this area unless:
 - a) entry personnel are physically incapable of completing proper first step decon.
 - b) gross decontamination is required.
 - c) they are assisting contaminated victims
2. If Decon team is required in this area, they are to wear one (1) level of protection below that required by the entry team personnel.
3. The water flow to the showers will be controlled in SECTION 2.

EQUIPMENT:

Decontamination solutions should be chosen according to the hazardous product. This information is available in a number of resource manuals at the reference sector.

SECTION 2:

WARM ZONE OF THE DECON SECTOR - STEPS 4 AND 5:

1. Decon Team in this Section wearing Level C PVC suits with air supplied masks from a cascade system. Boots and neoprene gloves will also be worn.
2. Total of six (6) Decon Team Members in this area.
3. Wash suits thoroughly with appropriate decontamination solution.
4. Use low pressure shower wand to rinse product.
5. Pump product from pool into recovery drum if necessary.
6. Decon Team Members in this area must never touch the inside of the encapsulated suit.
7. Remove boots, encapsulated suit and outer gloves from Entry Team. All items removed must be placed in bags to be disposed or examined.

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM ZONES OF

DECONTAMINATION CONTINUED:

EQUIPMENT:

All equipment is located on 9901.

The proper decontamination solution should be provided by the Reference Sector

SECTION 3:

COLD ZONE OF THE DECON SECTOR - STEPS 6, 7 AND 8:

1. No special protection required for Team Members in this Section.
2. Remove SCBA from Entry Team and isolate that equipment.
3. Remove the inner gloves, nomex hood and flame retardant coveralls. Place all items in bags.
4. Provide jumpsuit for all personnel if necessary.
5. Assist Entry Team personnel to the Haz Mat EMS Sector for physical assessment.

EQUIPMENT:

All equipment is located on 9901

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM

SUBJECT: DECON TERMINATION GUIDELINES

DATE IMPLEMENTED: JANUARY 1, 2006

REVISED:

It is extremely important to properly terminate the Decon Sector after an incident. This will help reduce contamination to the surrounding area and preserve as much equipment as possible.

1. All Decon team members must be wearing the appropriate level of protection.
2. Remove product from pools and place in recovery drums.
3. Disassemble showers and pools. Clean items thoroughly. Recover all runoff.
4. Clean all brushes, sponges and pails (if possible). Recover all runoff
5. Remove all product from diked area.
6. Remove plastic sheet and dispose along with recovered runoff product.
7. Drain tube diking and re-roll.
8. Gather all breathing apparatus and inspect for damage and examine for contamination.
9. Place all PVC suits and neoprene gloves in bags to be disposed.
10. Dispose all equipment that cannot be decontaminated.
11. Re-roll tarp (if salvageable).
12. Provide medical assessment for all Decon team members.
13. Notify Haz Mat Command when the Decon Sector is no longer operational.
14. Do Not Remove Contaminated Product from the Scene!!
15. Use common sense.

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM

SUBJECT: ENTRY OFFICER

DATE IMPLEMENTED: January 1, 2006

REVISED:

POLICY: The Entry Officer has the job of reconnaissance and relaying those observations to Haz Mat Command. The Entry Officer is to assign teams to make entry and acquire as much information as is safely possible. A team of three should be considered appropriate for entry.

All corrective measures will be decided by Haz Mat Command after consulting the Incident Commander.

Information regarding the characteristics of the product involved and personal protective equipment required should be received from the Reference Sector. Contact with the EMS should be established for pre-entry physicals of entry team members. Personal Protective Equipment will be procured from the Equipment Sector.

GUIDELINE:

1. Conduct SCBA check and double-check. Cylinders must be comparable.
2. Issue appropriate encapsulated suit and check for leaks or physical damage.
3. Supply appropriate hand protection (number of layers and type of glove).
4. Procure tarps or plastic sheets to lay equipment on.
5. Assign team members to assist with the donning of entry suits.
6. Obtain chairs, stools, benches to sit on.
7. Assign back-up personnel (RIT) to wear an equal level of protection,
8. See that all entry personnel have radios turned on to ENTRY TEAM CHANNEL
9. Determine the need for flash protection suits. *If needed, reconsider strategy.*
10. Issue writing tools for gathering information.
11. Check communication method and radio frequency with entry team leader.
12. Provide water for all entry personnel before they don encapsulated protective clothing.
13. Assign an individual to monitor the air use of each entry team member. Utilize the *Calculations for Working Time form.*
14. Complete and submit to Haz Mat Command, the *Entry PPE Data Sheet* of the Emergency Response Plan

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM
SUBJECT: ENTRY OFFICER'S CHECKLIST

DATE IMPLEMENTED: January 1, 2006

REVISED:

- Obtain briefing and strategic goals from Haz Mat Command
- Contact Science Officer for level of protection required.
- Secure site safety emergency escape plan from Science Officer.
- Select Entry site.
- Review, assignment, emergency signals, emergency escape plan, suit and SCBA failure, DECON setup and access/egress routes with entry team.
- Check SCBA levels of entry team members. **Pressures must be equal.**
- Entry suits must be checked for leaks and visible damage.
- Obtain tarps/plastic sheets to lay equipment on.
- Obtain chairs, stools, benches to sit on.
- Assign team members to assist with the donning of entry suits.
- Assign timekeeper to track air consumption of entry teams .
- Follow protective clothing checklist .
- Assign *rescue to entry personnel* in an equal level of protection in a ready to go mode and ensure the buddy system.
- Make sure that the exposure log has been made out for each person donning an entry suit.
- Determine if flammable vapors are present.
- Supply clipboard and/or writing utensils for gathering information.
- Radio frequencies determined: **ENTRY TEAM RADIO CHANNEL**
- Complete the Entry PPE Data Sheet and forward to Haz Mat Command van.

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM

SUBJECT: ENTRY AND BACK UP TEAM RESPONSIBILITIES

DATE IMPLEMENTED: JANUARY 1, 2006

REVISED:

POLICY: The hazardous materials entry team shall work under control of the Haz Mat Command and shall use all safety guidelines.

GUIDELINE:

1. Medical assessment to be performed prior to donning encapsulated protective clothing.
2. There will be a minimum of two (2) team members wearing the same level of protection, including SCBA, to be prepared as a back up team (RIT) for rescue efforts if necessary.
3. If RIT is needed they will take a rope bag and skeds as appropriate.
4. The chemical compatibility of the protective clothing shall be checked and approved before the entry and back up teams are suited up.
5. Any personnel wearing encapsulated protective clothing will drink fluids prior to donning entry suit.
6. A check list on proper donning shall be used for safety.
7. Back up team is to make sure that radios are on the ENTRY TEAM channel
8. The SCBA duration sheet will be filled out for each entry team member. The access control officer shall be responsible for assuring that the time each member starts on air is recorded and will notify them when it is time to begin contamination reduction.
9. Personnel must use suits cautiously and avoid kneeling, rubbing and/or direct contact with the chemical involved.
10. Allotted time to be spent in the Hot Zone shall be determined by factors such as:
 - The physical condition of the entry team member.
 - The amount of air in the SCBA.
 - Permeation, penetration or degradation time of protective clothing.
 - Weather conditions (high heat index).
 - Physical activities already performed by the team member.

**MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM
ENTRY AND BACK UP TEAM CONTINUED:**

9. Entry team personnel shall be medically checked; fluid replacement and rested after completion of decontamination.
10. The back up team shall be prepared to enter the restricted (Hot) zone to rescue the entry team if necessary. Personnel should avoid using tank air until there is a need to enter Hot Zone.
11. The back up team shall not enter the Hot Zone until a new back up team is prepared except for an emergency rescue.
12. The safety of the entry team is the top priority at all times. Operations conducted at the incident should support their safety.
13. Heat stress monitoring shall be completed on every entry team member.

SUBJECT: Haz Mat EMS OFFICER'S RESPONSIBILITIES:
DATE IMPLEMENTED: JANUARY 1, 2006 **REVISED:**

GUIDELINE: Primary responsibility is the monitoring and evaluation of all personnel in the hot, warm and cold zones and any victims that have gone through Decon.

1. Request additional ambulances and resources if needed.
 - a) Designate ALS ambulance for entry team
 - b) Obtain MSDS and necessary information from Reference Sector.
2. Perform pre-entry assessment. Ascertain medical history, medications and vitals.
3. Perform post-entry evaluation including EKG, if required.
4. Identify potential hazards for emergency actions.
5. Complete all reports, documentation and summary of activities, including the Medical Monitoring Sheet of the Emergency Response Plan and submit to Haz Mat Command.

SUBJECT: Haz Mat EMERGENCY MEDICAL TEAM CHECKLIST

DATE EMPLMEENTED: JANUARY 1, 2006

REVISED:

- _____ Obtain briefing and strategic goals from Haz Mat Command.
- _____ Contact poison control for toxicology of exposure. (1-800-942-5969)
- _____ Assign a paramedic ambulance for entry team
- _____ Brief EMS sector personnel on signs, symptoms and treatment of possible exposure to the chemical involved and potential heat stress risk.
- _____ Establish a rehabilitation (Rehab) area within the support in the cold zone.
- _____ Coordinate with incident EMS sector for casualties.
- _____ Notify Medical Control of the situation
- _____ Supervise re-entry evaluations; (According to NIOSH, April 1986, *Assessing Heat Stress and Strain*).
 - A) **no re-entry** if systolic >180 or diastolic >100.
 - B) **no entry** if pulse > 110 or if 110 on *re-entry*, shorten work time by 33%.
 - C) **no entry** if temperature is > 99' or if 99 on *re-entry*, shorten work by 33% and no *re-entry* if temperature exceeds 100.6'.
- _____ IV therapy should be initiated and patient transported as determined by the medical person incharge.
- _____ When treatment at the hospital is indicated, send all field evaluations with personnel. Have all paperwork entered in each individuals permanent record. **As per Federal regulations.**
- _____ Determine your need for additional personnel and resources.
- _____ Obtain as much information from the Reference Officer as possible about any long term and immediate health effects to contaminated personnel. All unidentified hazardous materials are considered deadly until proven otherwise.
- _____ Vitals documented on all personnel wearing Personal Protective Equipment
- _____ Complete exposure logs for all personnel being evaluated and use standard EMS run reports for medical assessment. (see: Site Safety Plan)
- _____ Special consideration should be given to the following: rashes, irritations, disorientation, heat related signs and symptoms from entry team and DECON personnel after wearing encapsulated suits.
- _____ Complete Medical Monitoring Sheet of the Emergency Response Plan and submit to Haz Mat Command.

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM

SUBJECT: MEDICAL POLICY

DATE EMPLEMENTED: JANUARY 1, 2006

REVISED:

Hazardous materials incidents have the potential for extreme medical problems. Patients may include civilians, injured prior to the arrival of Fire Department personnel or team personnel injured in the line of duty. Every effort must be directed towards reducing the risk of injuries to team personnel and to aiding injured civilians.

Rapid and correct treatment of these patients is paramount if a favorable outcome is to be achieved. Emergency medical personnel must be able to communicate accurate information to the medical facility in a timely fashion.

In the event patients are exposed and/or contaminated by a hazardous material Fire Department personnel must establish a medical sector immediately. They must also identify the chemicals involved. Relay this information to the nearest, most appropriate medical facility.

During triage, it may be required to provide special protective clothing to EMS Personnel. Whenever possible, Command should assign a HAZ MEDIC to the Haz Mat EMS Sector. Reference material should be made available to the Haz Mat EMS Sector to assist with determining the proper treatment of exposed victims.

Protocols currently in place are to be utilized, including MABAS mass casualty plans.

It is especially important to research patient treatment, prior to entry personnel becoming contaminated. Medications not normally carried on ALS ambulances may be required. If this situation should arise, contact the nearest, most appropriate medical facility in order to acquire the necessary medication(s).

Any information found in Haz Mat reference books should be relayed to the hospital.

SUBJECT: EMS FUNCTIONS AT Haz Mat INCIDENT

DATE IMPLEMENTED: JANUARY 1, 2006

REVISED:

RESPONSIBILITIES: Those persons who, in the course of their normal duties, may be called upon to perform patient care activities in the cold zone at a hazardous materials incident. They shall provide care only to those individuals who no longer pose a significant risk of secondary contamination (NFPA 473, 2002 Edition).

PRE-INCIDENT:

- Develop safety guidelines.
- Develop basic and advanced life support protocol for haz mat incidents.
- Develop and maintain resource list of medical consultants.
- Develop and maintain first aid kits and medic kits for the Haz Mat Team.
- ID possible haz mat incident medical related problems and symptoms.
- Ascertain pertinent medical history of entry team members.
- Participate in regular Haz Mat Team training.
- Train EMS Personnel regarding EMS matters related to haz mat incidents.

ON THE SCENE:

- Serve as Haz Mat EMS Group Officer.
- Consult Haz Mat Command regarding emergency medical matters.
- Maintain exposure records.
- Provide for initial emergency care for Entry Team Members.
- Assist field EMS personnel with providing care for specific exposure problems.
- Obtain information regarding medical treatment, signs and symptoms from the Reference Sector.

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM

EMS FUNCTIONS CONTINUED:

POST INCIDENT:

- Coordinate Decontamination of ambulances and EMS equipment.
- Assist with conducting critique of incident.
- Coordinate follow-up care of entry personnel exposed to hazardous materials.
- Complete all required documentation and summary of activities to be forwarded to Haz Mat Command. (see: Site Safety Plan)

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM

SUBJECT: Haz Mat EMERGENCY MEDICAL TEAM RESPONSIBILITIES

DATE IMPLEMENTED: JANUARY 1, 2006

REVISED:

POLICY: The ambulance crew assigned to medical evaluation of entry team personnel will have a minimum of two (2) paramedics and one (1) advanced life support ambulance. All Entry Team Members will be evaluated before and after each entry and a complete log is to be kept on each person. The medical team assigned to the team should not leave the scene unless it is absolutely necessary at which point a second ALS ambulance should be made available for the haz mat team.

GUIDELINE:

1. Determine your need for additional personnel and resources.
2. Obtain as much information from the Science Officer as possible about any long term and immediate health effects to contaminated personnel. All unidentified hazardous materials are considered deadly until proven otherwise.
3. If in your opinion a toxicologist's knowledge will be helpful, contact Haz Mat Command.
4. Vital signs must be documented on all entry personnel before and after leaving the Hot Zone.
5. Collect filled out hazardous material exposure logs for all entry personnel from the Haz Mat Safety Officer and use standard EMS run reports for evaluations.
6. Special consideration should be given to the following: rashes, irritations, disorientation, heat related signs and symptoms from entry team personnel. Monitor DECON team as well
7. Personnel may require transport to a hospital for additional medical treatment. Transportation is not to be done by the ambulance crew assigned to the Haz Mat EMS Sector.
8. When treatment at the hospital is indicated, send all field evaluations with personnel. Have all paperwork entered in each individuals permanent record. This is a Federal law (CFR 1910.120).

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM

SUBJECT: HEAT STRESS MONITORING

DATE IMPLEMENTED: JANUARY 1, 2006

REVISED:

POLICY: Heat stress monitoring shall be completed on every member wearing personnel protective clothing (encapsulated suits) including Decon Sector workers.

GUIDELINE: (NIOSH Occupational Exposure to Hot Environments, April 1986)

1. Haz Mat Medical Team personnel shall monitor and record information on each Member.
2. Monitor heart rate (pulse) as soon as possible during the rest period. Initial heart rate should not exceed 110. If the pulse is higher, the next work period should be shortened by 1/3.
3. Oral temperature shall not exceed 99 degrees F. If it does, the next work period should be reduced by 1/3. Semi-permeable or non-permeable protective clothing should not be worn if the temperature exceeds 100.6 degrees F.
4. Anticipate the loss of body fluids and replace as soon as possible.
5. Communicate your findings with the Safety Officer and Entry Officer.

MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM

SUBJECT: HANDLING CHEMICALLY POISONED OR CONTAMINATED VICTIMS

DATE IMPLEMENTED: JANUARY 1, 2006 REVISED:

POLICY: A victim who is poisoned or chemically contaminated must be handled properly. The safety of the response personnel and the optimum care of the victim are the end result.

GUIDELINE:

1. The following three (3) determinations have to be completed before the victim is handled:
 - A. That the victim is poisoned or contaminated.
 - B. That the victim is alive or has a chance of surviving.
 - C. That the product has been identified.

2. Movement of the victim:
 - A. Response personnel involved in the rescue attempt shall wear the proper protective equipment.
 - B. The victim should be moved from the area of contamination to the decontamination area. Victims may walk to decontamination on their own or with assistance. If the victim has to be carried, use a metal back board, stokes basket, or sked.

3. Patient assessment in decontamination area:
 - A. If the victim is conscious and with no life threatening injuries, decontamination and treatment should follow
 - B. If the victim has suffered a life threatening injury or is unconscious, he should be transported after decontamination.
 - C. If a contaminated victim is to be transported, the following must be done:
 - a) Cover the inside of the ambulance and the cot with plastic.
 - b) All EMS personnel shall be instructed to wear protective clothing.
 - c) Advise the hospital that a contaminated victim is en route to them.

**MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM
CONTAMINATED VICTIMS CONTINUED:**

4. Decontaminate the victim:
 - A. Remove all victim's clothing while protecting the victim from public view.

- B. Wash the victim thoroughly with soap and water. Retain all run-off water, if possible.
 - C. Repeat wash down.
 - D. If the victim complains of any dizziness, nausea or headache, omit the second wash.
 - E. If the victim becomes unconscious at any time, transport immediately.
 - F. Care should be taken not to contaminate any of the EMS personnel.
5. Treatment area:
- A. The treatment area shall be located just inside the Warm Zone to prevent any spreading of contamination.
 - B. The victim should be protected from hot and cold conditions. Disposable clothing or blankets should be furnished to the victim
 - C. All body fluids should be considered contaminated.
6. Treatment of victims:
- A. The victim should be reassessed by EMS personnel and given the proper treatment.
 - B. EMS personnel shall wear appropriate protective clothing while administering emergency medical care to victims.
7. On-site safety:
- A. All personnel shall keep in mind that protection is a priority.
 - B. Do not create additional victims by disregarding safety guidelines

**MABAS DIVISION 24 HAZARDOUS MATERIALS RESPONSE TEAM
SITE SAFETY PLAN**

A. SITE DESCRIPTION

DATE _____ LOCATION _____
 HAZARDS _____
 AREA AFFECTED _____

CONTAINERS _____ TYPE _____
 NUMBER _____ CONDITION _____
 LOCATION OF SEWERS _____

 WATER SUPPLIES _____

 POSSIBLE IGNITION SOURCES _____

 SURROUNDING POPULATION _____
 TOPOGRAPHY _____
 WEATHER CONDITIONS _____

 ADDITIONAL INFORMATION _____

B. ENTRY OBJECTIVES - The objective of the initial entry team to the contaminated area is to _____

 ADDITIONAL ENTRY TEAMS _____

C. ON SITE ORGANIZATION AND COORDINATION The following personnel are designated to carry out the stated job function on site.

INCIDENT COMMANDER _____
 HAZ-MAT COMMAND _____
 SCIENCE OFFICER _____
 LOGISTICS OFFICER _____
 SAFETY OFFICER _____
 STAGING OFFICER _____
 PUBLIC INFORMATION _____
 ACCESS CONTROL OFFICER _____
 ENTRY TEAM OFFICER _____
 ENTRY TEAM MEMBERS _____

SITE-SAFETY PLAN

C. (continued)
 FEDERAL AGENCY REPS. _____

 STATE AGENCY REPS. _____

 LOCAL AGENCY REPS. _____

CONTRACTORS _____

All personnel arriving or departing the site should log in and out with the Resource Officer. All activities on the site must be cleared through the IC and the HAZ-MAT Officer.

D. ON SITE CONTROL

_____ has been designated to coordinate control and security on the site. A safe perimeter has been established at _____

No unauthorized person should be within this area.

The Command Post and Staging area have been established at _____

The prevailing wind conditions are _____ and these locations are up wind from the Hot Zone.

Control Boundaries have been established and the HOT ZONE (red), WARM ZONE (yellow), and COLD ZONE (green) have been identified and designated as follows _____

These boundaries are identified by: _____

SITE SAFETY PLAN

E. HAZARD EVALUATION

The following substances are known or suspected to be on site. The primary hazards of each are identified.

SUBSTANCE INVOLVED	CONCENTRATIONS	PRIMARY-HAZARD
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

The following additional-hazards are expected on site: _____

F. PERSONAL PROTECTIVE EQUIPMENT,

Location	Job Function'	Level-Of Protection
HOT ZONE	_____	A B C D Other
	_____	A B C D Other
	_____	A B C D Other
	_____	A B C D Other
WARM ZONE	_____	A B C D Other

Specific protective equipment for each level of protection is as follows.

LEVEL A - Fully encapsulated Gas Tight suit, 1hour SCBA, triple gloved-, over boots

LEVEL B - Fully encapsulated suit, 1 hour SCBA, triple gloved, over boots

LEVEL C - splash protection suit, full face canister respirator r SCBA, over boots, gloves

LEVEL D Full Bunker Gear

OTHER _____

SITE SAFETY PLAN

The following protective clothing materials are required for the involved substances:

<u>SUBSTANCE</u>	<u>SUIT MATERIAL</u>
_____	_____
_____	_____
_____	_____
_____	_____

If air purifying respirators are authorized, _____ is the appropriate canister for use with the involved substances and concentrations.

NO CHANGES TO THE SPECIFIED LEVELS OF PROTECTION SHALL BE MADE WITH OUT THE APPROVAL OF THE SAFETY OFFICER AND HAZ-MAT SECTOR OFFICER.

G. ONSITE WORK PLANS

Work party(s) consisting of the following persons will perform the following tasks:

	NAMES	FUNCTION
ENTRY TEAM LEADER	_____	_____
ENTRY TEAM #1	_____	_____
	_____	_____
	_____	_____
ENTRY TEAM #2	_____	_____
	_____	_____
	_____	_____
RESCUE TEAM	_____	_____
	_____	_____
	_____	_____
DECOON TEAM	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____

The work(s) were briefed on the contents of this plan at _____

SITE SAFETY PLAN

H. COMMUNICATION PROCEDURES

Channel_____ has been designated as the radio frequency for personnel In the HOT ZONE. All other communications will use another channel

Personnel in the HOT ZONE should remain in constant communication or within sight of the Entry Team Officer. Any failure of radio communication requires an evaluation. Personnel should leave the Hot Zone immediately.

The following standard hand signals will be used in case of failure of radio communications:

Hand gripping throat ----- Out of air, can't breathe Grip partner's wrist or ----- Leave area immediately both hands around waist

Hands on top of head ----- Need assistance

Thumbs up----- Ok, I'm all right, I understand

Thumbs down ----- No, negative

Telephone communications to the command post should be established as soon as practicable. The phone number will be _____

I. DECONTAMINATION PROCEDURES

Personnel and equipment leaving the Hot Zone shall be thoroughly decontaminated. The standard decontamination protocol shall be used with the following decontamination stations.

- | | | |
|--------|--------|--------|
| 1_____ | 2_____ | 3_____ |
| 4_____ | 5_____ | 6_____ |
| 7_____ | 8_____ | 9_____ |

Other_____

—

Emergency decontamination will include the following stations _____

_____ will be the decontamination solution.

J. SITE SAFETY AND HEALTH PLAN

1._____ is the designated Safety Officer and is directly responsible to the Haz-Mat Officer for safety recommendations on site.

2. Emergency Medical Care

_____ & _____ are the qualified Paramedics on site. _____ at _____ phone # _____ is located _____ minutes from this location. _____ was contacted at and briefed on the situation, the potential hazards, and the substances involved.

There shall be one ALS ambulance assigned to the Haz-Mat Officer for the onsite personnel.

Emergency medical information for substances present

<u>SUBSTANCE</u>	<u>EXPOSURE SYMPTOMS</u>	<u>FIRST-AID INSTRUCTIONS</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

3. Environmental Monitoring

The following environmental monitoring instruments shall be used on (cross out if not applicable) at the specified intervals."

Combustible Gas Indicator	---	continuous/hourly/daily/other
O2 Monitors	---	continuous/hourly/daily/other
Colorimetric Tubes (type);	---	continuous/hourly/daily/other
_____	---	_____
_____	---	_____
_____	---	_____
Other _____	---	_____

SITE SAFETY PLAN

4. Emergency Procedures

The following standard emergency procedure will be used by onsite personnel. The Safety Officer shall be notified of any onsite emergencies and be responsible for ensuring that the appropriate procedures are followed.

Personnel injury in the HOT Zone: Upon notification of an injury in the Hot Zone, The designated emergency signal 5 AIR HORN BLASTS shall be sounded. All site personnel shall assemble, at the Cold end of the decontamination line. The rescue team will enter the Hot Zone (if required) to remove the injured person to the decontamination area. The Safety Officer and the Entry Team Officer should evaluate the nature of the injury, and the affected person should be decontaminated to the extent possible prior to movement to the Cold Zone. The onsite EMS shall initiate the appropriate first aid, and contact should be made with the designated medical facility (if required). No persons shall reenter the Hot Zone until the cause of the injury or symptom is determined.

Personnel injury in the Cold Zone: Upon notification of an injury in the Cold-Zone, the Haz-Mat Officer and the Safety officer, will assess the nature of the injury. If the cause of the injury or loss of the injured person does not affect the performance of site personnel, operations may continue, with the onsite Pm's initiating the appropriate first aid and necessary follow-up as stated above. If the injury increases the risk to others, the designated emergency signal 5 AIR HORN BLASTS shall be sounded and all site personnel shall move to the decontamination line for further instructions. Activities on the site will stop until the added risk is removed or minimized.

Fire/Explosion: Upon notification of a fire or explosion on the Site, the designated emergency signal 5 AIR HORN BLASTS will be sounded and all site personnel will assemble at the decontamination lines. Entry Team members will be decontaminated and all personnel moved to a safe distance from the involved area. The Haz-Mat Officer and the Safety Officer will meet with the Incident Commander and will assist him in any way possible with the fire firefighting activities.

Personal Protective Equipment Failure: If any site worker experiences a failure, or alteration of protective equipment that affects the protection factor, that person and his partner shall immediately leave the Hot/Warm Zone. Reentry shall not be permitted until the equipment has been repaired or replaced. Any personal protective equipment failure shall be reported to the Safety Officer and the Haz-Mat Officer.

SITE SAFETY PLAN

4. Emergency Procedures (continued)

Other Equipment Failures: If any other equipment on site fails to operate properly, the Haz-Mat Officer and the Safety Officer shall be notified and then determine the effect of the failure on continuing the operation. If the failure affects the safety of the personnel or prevents the completion of the work plan, all personnel shall leave the Hot Zone until the situation is evaluated and appropriate action is taken.

Should any of the previous situation accrue during the work plan operations it shall be the responsibility of the Haz-Mat Officer to inform the Incident Commander as soon as possible.

Emergency Escape Routes: The following emergency escape routes are designated for use in those situations where egress from the Hot Zone cannot occur through the decontamination area:

5. Personal Monitoring

The following-personal monitoring will be in effect on site:
Personal exposure sampling:

6. Medical Monitoring: The expected air temperature will be _____ If it is determined that heat stress monitoring is required (mandatory over 70 degrees F) the following procedures shall be followed:

PRODUCT DATA SHEETS

Separate forms must be competed for each product involved.

PRODUCT NAME: _____

SYNONYMS: _____

FORMULA: _____

STRUCTURAL - _____

EMPIRICAL - _____

IDENTIFICATION NUMBERS:

U.N. CLASS/DIVISION _____ U.N. IDENT. _____ CAS.#- _____

STCC - _____ EPA. REGISTRATION _____

EPA. ESTABLISHMENT # - _____

NFPA 704 DESIGNATION:

HEALTH _____ FLAMMABILITY _____

REACTIVE _____ SPECIAL HAZARDS _____

HAZARD COMMUNICATIONS/HMIS DESIGNATION:

HEALTH _____ FLAMMABILITY _____

REACTIVE _____ SPECIAL HAZARDS _____

RELEASE STATUS:

NO RELEASE ONGOING RELEASE UNKNOWN

COMPLETE RELEASE ANTICIPATED RELEASE

QUANTITY

REPORTABLE QUANTITY (RQ) - _____ -

RELEASED - _____ AVAILABLE FOR RELEASE - _____

R-1

PROPERTIES:

REFERENCE SOURCES	1. Pg.	2. Pg.	3. Pg.
-------------------	-----------	-----------	-----------

PHYSICAL

ODOR			
ODOR THRESHOLD			
COLOR			
PHYSICAL STATE			
PHYSICAL FORM			
Compressed Liquefied gas Molten solid Cryogenic liquid			
BOIL / CONDENSE PT.			
FREEZE / MELT PT.			
SUBLIMATION			
SPECIFIC GRAVITY			
VAPOR DENSITY			
VAPOR PRESSURE			
WATER SOLUBILITY			

R-2

FLAMMABILITY OR

NON FLAMMABILITY

REFERENCE SOURCE	1. Pg.	2. Pg.	3. Pg.
LEL			
UEL			
FLASH POINT			
IGNITION TEMP.			
DECOMPOSITION Y/N			
EXPLOSION POTENTIAL			

TOXICITY

TLV			
PEL / REL			
IDLH			
STEL			
CEILING			
LD50			
LC50			
Exposure Routes (I) inhalation (D) ingestion (S) skin abs,			
TARGET ORGAN			
SYMPTOMS OF EXPOSURE			
FIRST AID			

REACTIVITY

REFERENCE SOURCE	1. Pg.	2. Pg.	3. Pg.
OXYDIZER Y/ N			
PYROPHORIC			
CORROSIVE Y / N			
PH ANTICIPATED			
MSST			
SADT			
EXPLOSION			
POLYMERIZATION			
RADIOACTIVE Y/N			
Alpha			
Bata			
Gamma			
Other			

REFERENCE SOURCE	1. Pg.	2. Pg.	3. Pg.
COMPATABILITIES			
SUBSTANCES			
PPE			
INCOMPATABILITIE S Substances			
PPE			

PROTECTION

ISOLATION DISTANCE

Small qty. _____

Large qty. _____

EVACUATION

Small qty. _____

Large qty. _____

MONITORING DATA

ANTICIPATED ATMOSPHERE HAZARDS:

Oxidizer ____ Oxygen Deficient ____ Oxygen Enriched ____
 Corrosive ____ Radiation ____ Flammable ____
 Toxic ____

Relative Response Conversion Factors: _____
 Substance Ionization Potential- _____ e.v.

Readings

INSTRUMENT USED CGI	Initial	Corrected	Location	Comments
Oxygen %				
PH Meter				
Colorimetric pH Paper				
Tubes (specify)				
1.				
2.				
3.				
Other (specify)				
Radiation (specify)				
PID				
FID				

R-5

CONTAINER DATA

Separate forms must be completed for each container involved.

TYPE OF CONTAINER

Portable _____

Non-bulk (less than 119 gal./882lbs. capacity) _____

Bag _____ Bottle/Jar _____ Box _____
Drum
Fiber _____ Steel _____ Stainless steel _____
Plastic _____ 35 gal. _____ 55 gal. _____
Cylinder
Liquefied compressed gas _____
Compressed gas _____
Other _____

Bulk _____

Large container (tote, del, etc.) _____
Intermodal
Container/COFC _____ Trailer/TOFC _____
IM 101 _____ IM 102 _____
SPEC 51 _____
Capacity: Gallons _____ Pounds _____ cu. ft. _____

Fixed Container _____

Atmospheric
Fixed/cone roof _____ Floating roof _____
Internal floater _____ Retrofit floater _____

Low pressure
Dome roof _____

High pressure
Horizontal pressure _____ Pressure sphere _____
Reactor/process vessel _____

Other: _____

R-6

Transportation: applies _____ does not apply _____

Mode: Highway ___ Rail ___ Air ___
Water ___ Pipeline ___

Highway: applies ___ does not apply ___

Box ___ Van ___ Refrigerated ___ Flatbed ___ Dry bulk ___
MC 306/DOT 406 ___ MC 307/DOT 407 ___
MC 312/DOT 412 ___ MC 331 ___ MC 338 ___
Tube trailer ___

Rail: applies ___ does not apply ___

Flat ___ Box ___ Hopper/gondola ___ Dry bulk ___ Tube ___

Tank car ___

Non-pressure (low pressure) ___
DOT 103 ___ DOT 104 ___ DOT 111 ___

Pressure
DOT 105 ___ DOT 112 ___ DOT 114 ___

Miscellaneous
DOT 113 ___ DOT 115 ___ DOT 106 ___
DOT 109 ___ DOT 110 ___

Other: _____

Air: applies ___ does not apply ___

Passenger craft ___ Cargo craft ___

Water: applies ___ does not apply ___

Ship: Tanker ___ Container ___ Bulk cargo ___
Other: _____

Barge: Liquid ___ Liquefied gas ___ Dry bulk ___
Other: _____

Pipeline: applies ___ does not apply ___

Liquid ___ Gas ___ Slurry ___

R-7

CONTAINER PRESSURE

Atmospheric ___ Low ___ High ___ Ultra-High ___

RELIEF DEVICES

None ___ Spring loaded ___ Rupture disk ___ Fusible plug/ling ___

CONSTRUCTION MATERIAL

Non-metallic: Paper ___ Cardboard ___ Wood ___
Glass ___ Plastic ___

Metallic: ___
Aluminum (AL) ___ Standard steel ___

For rail and high pressure:
High temper low alloy (HTLA) ___
Quench-tempered (QT) ___

Brittle steel ___ (pre-1966/515-B and 212-B. Use 2in minimum radius for rail)
Ductile steel ___ (post-1966/TC-128. Use 4in minimum radius for rail)
Stainless steel (SS) ___

COMPARTMENTS

Yes ___ Number _____ No ___

Capacity and arrangement of each compartment:

CODES OF CONSTRUCTION

49 CFR ___ NFPA ___ Page ___ Section ___

SPECIFICATION MATERIALS THICKNESS

Wall/Shell/Barrel ___ Head ___

WEIGHT **Gross** ___ **Tare** ___

R-8

STRESSORS

Thermal: Radiant ___ Impingement ___ Chemical ___

Chemical: Corrosive ___ Acid ___ Base ___ Oxidation ___
Substance expansion ___
Reaction ___ Type _____

Mechanical: Impact ___ Friction ___ Pressure ___

Pressure source _____

Radiation

TYPE AND DEGREE OF DAMAGE

Damage
Thermal ___ Deformation ___ Expansion ___
Dents ___ Burns ___ Scores ___ Gouges ___

Additional information: _____

Rail and pressure: Dent radius _____
Dent depth _____

Breach

Location
Openings ___ Shell/wall ___ piping ___
Valving/attachments ___ Relief devices ___

Additional information: _____

R-9

Type and degree
Corrosion ___ Thermal burn-through ___ Pin-hole ___ Split/tear ___

Crack ___ Complete failure ___

Additional information: _____

Depth on rail and pressure containers

1/16" (little damage) ___ 1/8" (product transfer) ___

1/4" (critical) ___

CONTAINER COMPROMISE

Is the structural integrity presently compromised? Yes ___ No ___

If so, by which stressor? Thermal ___ Chemical ___ Mechanical ___

Is it possible structural integrity may become compromised? Yes ___ No ___

If so, by which stressor? Thermal ___ Chemical ___ Mechanical ___

NET THICKNESS: Container thickness minus the depth of the damage

Specification thickness: _____

Is the net thickness less than the specification thickness?

Yes ___ No ___

Rail and pressure containers

Container is critical ___ Container is not critical ___

If the container is critical, immediately consider tactical options.

R-10

ENVIRONMENTAL DATA SHEETS

Basic Incident Information

LOCATION: _____

OCCUPANCY OR TRANSPORTATION TYPE: _____

DATE: _____

INITIAL TIME (ALL TIMES MUST USE MILITARY TIME: _____

UPDATED TIMES: _____

SITUATION STATUS (UPON ARRIVAL):

Spill (release) (Y/N)

Type of Contaminant, Solid _____ Liquid _____ Gas _____

Size of Contaminated Area _____

Fire (Y/N)

Fuel: Product _____ Container _____ Exposure _____

Explosion (Y/N)

Occurred _____ Ongoing _____

Other information: _____

CONFINEMENT

WITHIN A STRUCTURE _____ OUTSIDE _____

CONFINEMENT DEVICES:

Dikes _____ Retention Pond _____ Detention Pond _____ Retention Tanks _____

Other: _____

CONDUITS

DRAINAGE DITCH/SWALE _____ STORM SEWERS _____ GULLIES _____

EXPOSURES

PEOPLE/POPULATIONS

VICTIMS:

Involved _____ Contaminated _____ Injured _____ Entrapped, Number _____

POPULATION/OCCUPANCIES ENDANGERED

Residential _____ Commercial _____ Mercantile _____ Industrial _____ Mixed _____

Hospital _____ Nursing Home _____ School _____ Prison _____ Transportation _____

Corridor _____

Other: _____

R-11

STRUCTURES/PROPERTY

TYPES:

Structures _____ Processes _____ Containers _____ Vehicles _____ Water wells _____
Closed water storage/treatment _____ Sewage treatment _____
Food production/handling facilities _____
Other _____

NATURAL

Bodies of water:

Stream _____ River _____ Pond _____ Lake _____ Open reservoir _____
Wetlands _____ Estuary _____ Ground water _____

Soils:

Sand _____ Gravel _____ Clay _____ Compacted ground _____
Asphalt _____ Concrete _____

Living organisms:

Dead animals/plants _____

Animal:

Mammal _____ Fish _____ Bird _____ Endangered species _____
Farm animals _____

Plants:

Agricultural _____ Aquatic _____

R-12

WEATHER

Meteorological readings should be taken every 15 minutes. In critical situations, readings may be needed at intervals of less than 15 minutes. In non-critical situations, intervals may be longer.

ON-SCENE WEATHER STATION

Time							
Temperature							
Humidity							
Dew Point							
Wind							
Direction							
Speed							
Barometric Pressure							

NOAA

Time							
Temperature							
Humidity							
Dew Point							
Wind							
Direction							
Speed							
Barometric Pressure							

OTHER SOURCE (SPECIFY)

Time							
Temperature							
Humidity							
Dew Point							
Wind							
Direction							
Speed							
Barometric Pressure							

ESTIMATING INCIDENT COURSE AND HARM

SPILL

PRESENT _____ POSSIBLE _____ ANTICIPATED _____

TYPE:

Gas/Air _____ Liquid/Surface _____ Liquid/Water _____ Solid/Surface _____

ANTICIPATED SPREAD: _____

ANTICIPATED IMPACT:

Responders- _____

Victims- _____

Public- _____

Exposures-

Structures _____ Other containers _____ Other substances _____
Production processes _____ Animals _____ Vegetation _____

LEAK

PRESENT _____ POSSIBLE _____ ANTICIPATED _____

TYPE: _____

ANTICIPATED COURSE

Remain Static _____ Expand _____ Container Failure _____

ANTICIPATED FAILURE

Type: Explosive _____ Violent _____ Non-violent _____

ANTICIPATED HARM OF FAILURE TO:

Responders: _____

Public: _____

Other Containers: _____

Other Substances: _____

Other Exposures: _____

FIRE PRESENT: YES _____ NO _____ **POSSIBLE:** YES _____ NO _____

ANTICIPATED: YES _____ NO _____

POSSIBLE IGNITION SOURCES: _____

ANTICIPATED COURSE:

Remain Static _____ Spread to Exposures _____ Intensify _____

Results in Explosion(s) _____

ANTICIPATED HARM OF CONTROLLED BURN:

Highly contaminated smoke _____ Possible explosion(s) _____

Threaten exposures _____

ANTICIPATED HARM OF CONTROLLED BURN ON:

Responders: _____

Public: _____

Other Containers: _____

Other Exposures: _____

ANTICIPATED HARM OF SUPPRESSION:

Highly contaminant smoke _____ Contaminated run-off _____

Mixing of substances _____ Water reactions _____ Explosions _____

Contamination spread to:

Responders _____ Public _____ Structures _____ Production process _____

Surface water _____ Animals _____ Plants _____ Ground water _____

ANTICIPATED HARM OF SUPPRESSION ON:

Responders: _____ Public: _____

_____ Other

Containers: _____ Other

Substances: _____ Other

Exposures: _____

STRATEGIC GOAL SHEET

ISOLATION

ESTABLISH UPON ARRIVAL

Isolation _____ Perimeter _____ Initial evacuation _____ Staging _____
Access Control: Zones _____ Scene _____
Zones: Hot _____ Location _____
Warm _____ Location _____
Cold _____ Location _____
Modifications
Zones: Hot _____ Location _____
Warm _____ Location _____
Cold _____ Location _____
Initial evacuation _____ Shelter in-place _____
Comments: _____

NOTIFICATION

COMMUNICATION CAPABILITIES:

Communications Office Assigned _____
Communications Links Established _____

INITIATED UPON ARRIVAL:

Fire _____ EMS _____ Police _____
CHEMTREC _____ National Response Center _____ State Response Center _____
LEPC/Emerg. Mgt. Agency _____

ADDITIONAL NOTIFICATIONS REQUIRED:

Fire _____ EMS _____ Police _____
CHEMTREC _____ National Response Center _____ State Response Center _____
LEPC/Emerg. Mgt. Agency _____ Prison Control _____ Shipper _____
Carrier _____ Manufacturer _____

IDENTIFICATION

PLACARDS _____
Types/Class/Etc. _____
ID NUMBERS _____
SHIPPING PAPERS _____
TYPES: _____
SITE SPECIFIC PREINCIDENT SURVEY _____ LEPC PLAN _____
RECON REQUIRED _____ RECON COMPLETED _____

PROTECTION

EVACUATION _____ EMS _____ DECONTAMINATION _____ RESCUE _____
MONITORING _____ SHELTER IN-PLACE _____
PPE: DECON _____ ENTRY _____ BACK-UP _____

SPILL CONTROL

SPILL TYPE:

Gas/Air _____ Liquid/Surface _____ Liquid/Water _____ Solid/Surface _____

GAS/AIR:

Disperse _____ Divert _____ Absorb _____ Ventilation _____ Blanket _____ etc.

LIQUID/SURFACE:

Dike _____ Divert _____ Adsorb _____ Retain _____ Solidify _____ etc.

LIQUID/WATER:

Boom _____ Dam _____ Absorb/Adsorb _____ Divert _____ etc.

SOLID/SURFACE:

Blanket _____

LEAK CONTROL

LEAK TYPE: _____

Plug _____ Patch _____ Over-pack _____ Displace _____ Pressure Reduction _____
Remote Shut-off _____ Product Transfer _____ etc.

FIRE CONTROL

EXPOSURE PROTECTION _____ PERSONNEL PROTECTION _____
VAPOR SUPPRESSION _____ FIRE SUPPRESSION _____

RECOVERY/TERMINATION

RECOVERY:

Equipment Decontamination _____ Release Companies _____ Clean-up Oversight _____
Waste Labeling _____ etc.

TERMINATION:

Debrief/Hazcom _____ Critique _____ After-action Report _____ etc.

ISOLATION SHEETS

ESTABLISHED UPON ARRIVAL

Isolation _____ Perimeter _____ Initial Evacuation _____ Staging _____

Access Control: Zones _____ Scene _____
Zones: Hot _____ Location _____
Warm _____ Location _____
Cold _____ Location _____

RESULT STATUS:

No Release _____ Ongoing Release _____ Complete Release _____ Unknown _____

IMMEDIATE NOTIFICATION

Zones: Hot _____ Location _____
Warm _____ Location _____
Cold _____ Location _____
Initial Evacuation _____ Shelter In-place _____

Comments: _____

PUBLIC PROTECTION

SHELTER IN-PLACE

Possible Option (Y/N)
Short-term Release _____ Special Need Population (disabled, infirm, etc.) _____
Total Area Contamination _____ Mass Fire Potential _____
Explosion Potential _____ Long-term Release Potential _____

EVACUATION

DISTANCES

	DOT ERG	Computer	Site Plan	Other
Isolation				
Small Qty.				
Large Qty.				
Evacuation				
Small Qty.				
Large Qty.				

PHASES:

Phase 1:

Area to be evacuated-_____

Assigned to-_____

Time initiated-_____, Time completed-_____

Phase 2:

Area to be evacuated-_____

Assigned to-_____

Time initiated-_____, Time completed-_____

Phase 3:

Area to be evacuated-_____

Assigned to-_____

Time initiated-_____, Time completed-_____

Phase 4:

Area to be evacuated-_____

Assigned to-_____

Time initiated-_____, Time completed-_____

NEEDED MODIFICATIONS

WHAT PHASE-_____

EXPLANATION-_____

ZONES:

Hot _____ Location _____

Warm _____ Location _____

Cold _____ Location _____

Initial Evacuation _____ Shelter in-place _____

Comments _____

NOTIFICATION SHEET

COMMUNICATIONS CAPABILITIES:

COMMUNICATIONS OFFICER ASSIGNED _____ NAME _____

COMMUNICATIONS LINKS ESTABLISHED _____

INITIATED UPON ARRIVAL:

Fire _____ EMS _____ Police _____

CHEMTREC _____ National Response Center _____ State Response Center _____

LEPC/Emerg. Mgt. Agency _____

ADDITIONAL NOTIFICATIONS REQUIRED:

Fire _____ EMS _____ Police _____

CHEMTREC (1-800-424-9300) _____

National Response Center (1-800-424-8802) _____

CANUTEC _____

State Response Center _____

LEPC/Emerg. Mgt. Agency _____

Prison Control _____

Shipper _____ Carrier _____

Manufacturer _____

CALLER'S NAME _____
CALLBACK NUMBER _____

INCIDENT DATA (carriers involved)

Carrier: _____
Shipper: _____
Consignee: _____
Manufacturer: _____
Facility Operator: _____
Responsible Party: _____

INCIDENT TYPE
(TRANSPORTATION)

Hwy. _____ Rail _____ Air _____ Water _____ Pipeline _____

(FIXED SITE)

Specify- _____

NATURE OF INCIDENT: _____

LOCATION: _____

TIME: _____

WEATHER: _____

PRODUCTS INVOLVED: _____

CONTAINERS: _____

TYPE(S)- _____

IDENTIFICATION NUMBERS: _____

MEDICAL MONITORING SHEETS

PRODUCT EXPOSURE DATA

PRODUCT NAME	Symptoms of Exposure
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	

ADDITIONAL COMMENTS:

PRE-ENTRY BRIEFING

Remind personnel, prior to entry, that heat stress or chemical exposure can cause alteration of physical and mental abilities. Entry personnel must be alert to any changes they note in themselves or their partner. If any such changes are noted, **both team members shall withdraw and return to decon.** Additionally, any changes noted **shall be immediately communicated to the intervention team/group leader and haz-mat safety.**

No personnel shall be allowed to enter chemical protective clothing if their vital signs are found to be above the following:

Oral temperature 99.8, Blood pressure 150/90, Pulse 110, Respiration-25.

ENTRY PERSONNEL NAME	PRE-ENTRY						POST-ENTRY					
	Temp	BP	Pulse	Resp	WT	EKG	Temp	BP	Pulse	Resp	WT	EKG
1.												
2.												
3.												
4.												
5.												
6.												
7.												
8.												
9.												
10.												
11.												
12.												
13.												
14.												
15.												
16.												

DECON PERSONNEL NAME	PRE-ENTRY						POST-ENTRY					
	Temp	BP	Pulse	Resp	WT	EKG	Temp	BP	Pulse	Resp	WT	EKG
1.												
2.												
3.												
4.												
5.												
6.												
7.												
8.												
9.												
10.												
11.												
12.												
13.												
14.												
15.												
16.												

ADDITIONAL COMMENTS:

R-25

ENTRY/PPE DATA SHEETS

PPE TYPE

Turn-outs [TO], Turn-outs/Vapor-splash [TVS], Level A [A], Level B [B], Level C [C], Level D [D], Proximity [P], Entry [E]

ENTRY PERSONNEL	PPE DATA			WORK/AIR TIMES				POST-ENTRY			
	NAME	Suit #	Suit Mtrl	Type	On Air	Entry	Out	Off Air	Med.	Mon.	Reha
1.											
2.											
3.											
4.											
5.											
6.											
7.											
8.											
9.											
10.											
11.											
12.											
13.											
14.											
15.											
16.											

DECON PERSONNEL	PPE DATA			WORK/AIR TIMES				POST-ENTRY			
	NAME	Suit #	Suit Mtrl	Type	On Air	Entry	Out	Off Air	Med.	Mon.	Rehab
1.											
2.											
3.											
4.											
5.											
6.											
7.											
8.											
9.											
10.											
11.											
12.											
13.											
14.											
15.											
16.											

**R-27
DECONTAMINATION DATA SHEETS**

PERSONAL PROTECTIVE EQUIPMENT

TYPE OF PPE USED:

Structural Turn-outs _____

Splash/Vapor over Turn-outs _____

Chemical Protective Clothing _____

Level A

Type 1 _____

Type 2 _____

Type 3 _____

Level B _____

Level C _____

High Temperature Clothing _____

Proximity _____

Entry _____

CONTAMINANT

HAZARDS:

Bio-hazard _____

Radioactive _____

Reactive _____

Poison _____

Flammable _____

Corrosive _____

Oxidizer _____

IDLH _____

TLV/PPE _____

CONTAMINANT ROUT OF EXPOSURE

Inhalation _____

Ingestion _____

Absorption/Contact _____

PROPERTIES:

Physical State: Solid _____ Liquid _____ Gas _____

Water Reactivity:

Water Reactive _____, Type of Water Reactive _____

Water Soluble _____, Degree of Solubility _____, Non-water Soluble _____

Specific Gravity _____, Vapor Density _____

Viscosity: High _____ Medium _____ Low _____

DECONTAMINATION PROCESS CHOSEN

DRY DECON _____

WET DECON:

1. Wash/Rinse/Wash/Rinse _____

2. Wash/Rinse/Rinse _____

3. Wash/Rinse _____

R-28

SOLUTIONS CHOSEN

1. Laundry Detergent _____

2. Sodium Bicarbonate_____
3. Citric Acid_____
4. Full strength bleach (sodium hypochlority)_____
5. Dilute bleach (sodium hypochlorite)_____

PERSONNEL TRACKING

ENTRY #1

Time entered decon_____

Time exited decon_____

Decon completed (Y/N)

Comments_____

ENTRY #3

Time entered decon_____

Time exited decon_____

Decon completed (Y/N)

Comments_____

ENTRY #5

Time entered decon_____

Time exited decon_____

Decon completed (Y/N)

Comments_____

ENTRY #7

Time entered decon_____

Time exited decon_____

Decon completed (Y/N)

Comments_____

ENTRY #9

Time entered decon_____

Time exited decon_____

Decon completed (Y/N)

Comments_____

ENTRY #11

Time entered decon_____

Time exited decon_____

Decon completed (Y/N)

Comments_____

ENTRY #2

Time entered decon_____

Time exited decon_____

Decon completed (Y/N)

Comments_____

ENTRY #4

Time entered decon_____

Time exited decon_____

Decon completed (Y/N)

Comments_____

ENTRY #6

Time entered decon_____

Time exited decon_____

Decon completed (Y/N)

Comments_____

ENTRY #8

Time entered decon_____

Time exited decon_____

Decon completed (Y/N)

Comments_____

ENTRY #10

Time entered decon_____

Time exited decon_____

Decon completed (Y/N)

Comments_____

ENTRY #12

Time entered decon_____

Time exited decon_____

Decon completed (Y/N)

Comments_____

R-29
SPILL CONTROL DATE SHEETS

PRODUCT CONSIDERATIONS

PHYSICAL STATE: Solid_____ Liquid_____ Gas_____

Form

Compressed liquefied gas_____ Cryogenic liquid_____
Molten solid_____ Fillings/Shavings_____
Powders/Dusts_____ Slury_____
Gel_____

Other_____

RELEASE CONSIDERATIONS

STATUS

None_____ Potential_____ On-going_____ Completed_____

Type

Gas/Air_____ Liquid/Surface_____
Liquid/Water_____ Solid Surface_____

Gas/Air release tactical option chosen

Ventilation: natural_____ hydraulic_____ mechanical_____

If mechanical: house system_____ positive pressure_____
negative pressure_____

Diversion (change direction of movement)_____
Dissipation (injection of air from fog steamers or fan)_____
Dissolution (water fog for water soluble gas/vapor)_____
Blanketing (covering a liquid or solid to suppress vapors)_____

Liquid/surface release tactical option chosen

Diking_____ Method:_____

R-30

Diverting_____ Method:_____

Absorbing_____ Method:_____

Adsorbing_____ Method:_____

Neutralizing_____ Method:_____

Gelation_____ Method:_____

Solidification_____ Method:_____

Dilution_____ Method:_____

Retention_____ Method:_____

Blanketing (for vapor suppression)_____ Method:_____

Emulsification_____ Method:_____

Liquid/Water release tactical option chosen

Damming_____ Method:_____

Absorption_____ Method:_____

Booming_____ Method: 6e. Retention_____

Diversion_____ Method:_____

Solid/Surface release tactical option chosen

Blanketing_____ Method:_____

R-31

LEAK CONTROL DATA SHEETS

LEAK TYPE

State and form of product_____

Container pressure_____

Container structure stability_____

Container physical stability_____

DIRECT CONTROL OPTION(S) CHOSEN

Plug_____ Method:_____

Patch_____ Method:_____

Crimp_____ Method:_____

Overpack_____ Method:_____

Shut-offs_____ Method:_____

INDIRECT CONTROL OPTION(S) CHOSEN

Product transfer_____ Method:_____

Shut-offs_____ Method:_____

Pressure reduction_____ Method:_____

Product displacement_____ Method:_____

OTHER OPTIONS

Flare_____ Method:_____

Vent and burn_____ Method:_____

R-32

FIRE CONTROL DATA SHEETS

FIRE

Present_____ Possible_____ Not Present_____

PRODUCT INVOLVED

Explosive _____
Flammable gas _____

Flammable liquid _____
Radioactive materials _____

Flammable solid _____
Pesticide _____

Other: _____

APPROPRIATE EXTINGUISHMENT AGENT

Water _____ Foam _____ Dry chemical (ABC) _____ Dry powder _____
Hazardous materials foam _____

FOAM TYPE

Protein _____ Fluoroprotein _____ AFFF _____
FFFP _____ Polar solvent _____ Haz mat _____

EXPANSION RATIO

Low (3-10) _____ Medium (50-200) _____ High (300-3000) _____

POTENTIAL IMPACT OF FIRE

On
container _____

On
product _____

On
environment _____

R-33

POSSIBLE PYROLYSIS PRODUCTS

POTENTIAL IMPACT OF EXTINGUISHMENT

RUN-OFF CONSIDERATIONS

FOAM CALCULATIONS

FUEL TYPE

Mixture with wide boiling point range (light crude)_____

Standard boiling point range_____

Non-polar fuel_____

Polar solvent_____

Flammable (flash point 100 F or lower)_____

Combustible (flash point 100 F or higher)_____

Application rate

Polar solvents (.16 to .24 gpm/ft. sq.)

Wide boiling point range (.2 gpm/ft. sq.)

Hydrocarbon fuel (.16 gpm/ft. sq.)

Application time

Flammable liquids (65 minutes)

Combustible liquids (55 minutes)

Surface Area Calculations

X r = square foot surface area

Or

Diameter squared x .785 = square foot area

R-34

MONITORING

1. Product _____
 LEL _____ %
 IDLH _____
 OTHER _____
2. Ph _____ Oxygen level _____ % Radiation _____
3. Hydrocarbon (fid) _____ Derivative (pid) _____
 (Ev) potential
4. Flammable _____ Combustible _____
 VAPOR PRESSURE _____
 *HIGH OFF THE PRODUCT _____
 *LOW OFF THE PRODUCT _____
5. Relative responses _____
6. Vapor density: Heavy _____ Light _____
7. Approach: Wind direction _____ Mph _____
8. Humidity: _____ % Barometric pressure: _____
9. Effect/limitations of temperature: _____
10. Temperature: _____
11. Is dew predicted? Yes _____ No _____
12. Confined space? Yes _____ No _____
 Oxygen enriched? Yes _____ No _____
 Oxygen level _____ %
13. Type of monitoring device needed: _____

EPA guidelines for acceptable release is less than 1/42 of the TLV

R-35

INSTURMENT LIMITATIONS

Instrument _____

Model # _____

Temperature Range _____ To _____

Humidity Ceiling _____ %

Oxygen Range _____ To _____

Uv lamp size

(when applicable)

Calibration to _____

Temperature day calibrated _____

Cass _____ Group _____ Division _____

Responsible time _____

Limitations _____

Relative Response Table

R-36

INCIDENT DEBRIEFING FORM

Incident number _____ Date _____ Time _____
Debriefing Date _____ Time _____ Location _____

Incident
Synopsis

Time		Actions
	1. SITUATION STATUS: 2. COMMUNICATIONS: 3. ACTIONS TAKEN: 4. BY WHOM:	

Time		Actions
	1. SITUATION STATUS: 2. COMMUNICATIONS: 3. ACTIONS TAKEN: 4. BY WHOM	

Time		Actions
	1. SITUATION STATUS: 2. COMMUNICATIONS: 3. ACTIONS TAKEN: 4. BY WHOM:	

Time		Actions
	1. SITUATION STATUS 2. COMMUNICATIONS: 3. ACTIONS TAKEN: 4. BY WHOM: 5.	

Time		Actions
	1. SITUATION STATUS: 2. COMMUNICATIONS: 3. ACTIONS TAKEN 4. BY WHOM	

**R-37
POTENTIAL
EXPOSURE INFORMATION
SUBSTANCES INVOLVED**

SUBSTANCE 1

Name/Synonyms: _____

Routes of Exposure: _____

Symptoms of Exposure: _____

Actions to be Taken: _____

SUBSTANCE 2

Name/Synonyms: _____

Routes of Exposure: _____

Symptoms of Exposure: _____

Actions to be Taken: _____

SUBSTANCE 3

Name/Synonyms: _____

Routes of Exposure: _____

Symptoms of Exposure: _____

Actions to be Taken: _____

SUBSTANCE 4

Name/Synonyms: _____

Routes of Exposure: _____

Symptoms of Exposure: _____

Actions to be Taken: _____

SUBSTANCE 5

Name/Synonyms: _____

Routes of Exposure: _____

Symptoms of Exposure: _____

Actions to be Taken: _____

SUBSTANCE 6

Name/Synonyms: _____

Routes of Exposure: _____

Symptoms of Exposure: _____

Actions to be Taken: _____

SUBSTANCE 7

Name/Synonyms: _____

Routes of Exposure: _____

Symptoms of Exposure: _____

Actions to be Taken: _____

SUBSTANCE 8

Name/Synonyms: _____

Routes of Exposure: _____

Symptoms of Exposure: _____

Actions to be Taken: _____

FOR FURTHER INFORMATION OR IN THE EVENT OF SYMPTOMS, THE INCIDENT CONTACT PERSON IS:

NAME: _____

TELEPHONE NUMBER: _____

R-39

DE-BRIEFING SIGN-IN SHEET

FOR INCIDENT NUMBER: _____ **DATE:** _____ **TIME:** _____

Please print your name and department and sign at the appropriate location on this sheet. By signing this form, you are acknowledging your attendance at this debriefing and that you have been supplied with substance exposure data including the name, routes of exposure, symptoms, and contact person and procedures should symptoms be exhibited.

NAME	SIGNATURE	DEPARTMENT	PHONE
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
11.	_____	_____	_____
12.	_____	_____	_____
13.	_____	_____	_____
14.	_____	_____	_____
15.	_____	_____	_____
16.	_____	_____	_____
17.	_____	_____	_____
18.	_____	_____	_____
19.	_____	_____	_____
20.	_____	_____	_____
21.	_____	_____	_____
22.	_____	_____	_____
23.	_____	_____	_____
24.	_____	_____	_____
25.	_____	_____	_____
26.	_____	_____	_____
27.	_____	_____	_____
28.	_____	_____	_____
29.	_____	_____	_____
30.	_____	_____	_____
31.	_____	_____	_____
32.	_____	_____	_____
33.	_____	_____	_____

R-40

AFTER-ACTION REPORT

Incident number: _____ Date: _____ Time: _____
Debriefing date: _____ Time: _____ Location: _____

Incident synopsis: _____

ATTACHMENTS

SITE SAFETY PLAN _____ DEBRIEFING _____ CRITIQUE _____
OTHER (SPECIFY) _____

PROBLEMS IDENTIFIED

1. _____

2. _____

3. _____

4. _____

5. _____

SPECIFIC ISSUE	RESPONSIBLE PARTY	DATE DUE
1. _____ _____		
2. _____ _____		
3. _____ _____		
4. _____ _____		
5. _____ _____		