

Sanoca Rural Fire District, Inc.
STANDARD OPERATING PROCEDURES
Emergency Operations

Fire Company Operations

Subject: Hazardous Materials Incidents

Revised: May 17, 2003

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 exposure, corrosives, explosives, health and chemical reactions, or a 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 incident presents the potential for exposure to hazardous materials; even the products of combustion of an ordinary fire may present severe hazards to personnel safety.

This procedure is specifically applicable to known hazardous materials incidents, but it does not reduce the need for appropriate safety precautions at every incident. The use of full protective clothing and SCBA and the use of all Standard Operating Procedures on a continuing basis are foundational for this plan.

DISPATCH

The 911 Center will attempt to obtain any and all information from the person reporting a hazardous materials incident. The information should, if possible, include material name and/or type, amount and size of container(s), problem (leak, spill, fire, etc.) and dangerous properties of the materials as well as the number of persons injured or exposed. The 911 operator should remain on the telephone with the caller to gain additional information after entering the call for the dispatch.

Any additional information shall be relayed to responding units after dispatch. **THIS SHOULD INCLUDE THE SAFEST APPROACH OR BEST ACCESS TO THE INCIDENT IF AVAILABLE.**

If the call comes from a person with particular knowledge of the hazardous situation, that person should be instructed to meet and direct the arriving units. Dispatch shall relay that person's location and level of knowledge to responding units.

Dispatch will inform units as to the prevailing wind speed and direction from the monitoring station and advise responding units.

FIRST ARRIVING UNIT

The first arriving officer will establish Command and begin a size-up. The first unit must consciously avoid committing itself to a dangerous situation. When approaching, slow down or stop to assess any visible activity taking place. Evaluate effects of wind, topography and location of the situation. Route any other responding companies away from any hazards.

Command should consider ESTABLISHING LEVEL II STAGING WHENEVER POSSIBLE FOR OTHER RESPONDING UNITS. Staged companies must be in a safe location, taking into account wind, spill flow, explosion potential and similar factors in any situation. THE DOT GUIDEBOOK, NFPA REFERENCE MATERIALS, THE NIOSH POCKET GUIDE, OR ANY OTHER MATERIAL SUCH AS MSDS OR SHIPPING PAPERS AVAILABLE TO THEM SHOULD BE USED TO ESTABLISH A SAFE DISTANCE FOR STAGING.

SIZE-UP

Command must make a careful size-up before making a commitment. It may be necessary to take immediate action to make a rescue or evacuate an area. This should be attempted only after a risk/benefit analysis is completed. Personnel must take advantage of available personal protective equipment in these situations.

The objective of the size-up is to identify the nature and severity of the immediate problem and to gather sufficient information to formulate a valid action plan. Hazardous materials incidents require a cautious and deliberate size-up.

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 and weather conditions, location of the incident, and degree of risk to unprotected personnel. Take immediate action to evacuate and/or rescue persons in critical danger, if possible, providing for safety of rescuers FIRST.

The primary objective is to identify the type of materials involved in a situation, and the hazards presented, before formulating a plan of action. Look for labels, markers, DOT IDENTIFICATION NUMBERS, NFPA DIAMOND or shipping papers, etc. Refer to pre-fire plans and ask personnel at the scene for additional information (plant management, responsible party, truck drivers, Emergency Management). Use reference materials carried on apparatus and have 911 contact other sources for assistance in sizing up the problem (state agencies, fire department specialists, manufacturers of materials, etc.).

ACTION PLAN

Based on the initial size-up and any information available, Command will formulate an action plan to deal with the situation.

THE ACTION PLAN MUST PROVIDE FOR:

- *Safety of all fire personnel
- *Evacuation of endangered area, if necessary
- *Control of situation

- *Stabilization of hazardous materials, and/or
- *Disposal or removal of hazardous material

Most hazardous materials are intended to be maintained in a safe condition for handling and use through confinement in a container or protective system. The emergency is usually related to the material escaping from the protective container or system and creating a hazard on the exterior. The strategic plan may include a method to control the flow or release, get the hazardous material back into a safe container, neutralize it, allow it to dissipate safely, or coordinate proper disposal.

The specific action plan must identify the method of hazard control and identify the resources necessary 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" to wait for needed equipment or supplies.

Avoid committing personnel and equipment prematurely or "experimenting" with techniques and tactics. Many times it is necessary to evacuate and wait for special equipment or technical help.

CONTROL OF HAZARDOUS AREA

A hazardous material incident has two initial zones associated with the scene, similar to a fire. There are the LIMITED ACCESS ZONE and the EVACUATION ZONE.

LIMITED ACCESS ZONE (LAZ)

The LAZ is the area in which personnel are potentially in immediate danger from the hazardous condition. This is established by Command and controlled by the fire department. Access to this area will be rigidly controlled and only personnel with proper protective equipment and an assigned activity will enter. All companies will remain in tact in designated staging areas until assigned. Personnel will be assigned to monitor entry and exit of all personnel from the LAZ. The LAZ should be geographically described to all responding units, if possible and identified by yellow fireline tape. (A Safety Officer will be established to control access to the LAZ and maintain an awareness of which personnel are working in the area.)

- Establish a safe perimeter around hazardous area and identify with tape.
- Request adequate assistance to maintain the perimeter.
- Identify an entrance/exit point and inform Command of its location.
- Coordinate with Safety Officer or "RECON CREW" to identify required level of protection for personnel operating in the Hazard Zone.
- Collect/return accountability tags of all firefighters entering/leaving the controlled area.

Restriction of personnel access into the LAZ includes not only fire department personnel, but any others who may wish to enter the LAZ (Police, press, employees, tow truck drivers, ambulance personnel, etc.). Command is responsible for everyone's safety.

EVACUATION ZONE (EZ)

The EZ is the larger area surrounding the LAZ in which a lesser degree of risk to personnel exists. All civilians would be removed from this area. The limits of this zone will be enforced by Police, Sheriff's Deputies or Highway Patrol based on distances and directions established in consultation with Command. The area to be evacuated depends on the nature and amount of the material and type of risk it presents to unprotected personnel (toxic, explosive, etc.).

In some cases, it is necessary to completely evacuate a radius around a site for a certain distance (i.e., potential explosion).

In other cases, it may be advisable to evacuate a path downwind where toxic or flammable vapors may be carried (and control ignition sources in case of flammable vapors).

In all cases, the responsibility for safety of all potentially endangered citizens rests with Command. Once the Hazardous Materials Sector has been established, HAZ MAT personnel will define and establish a hot, warm, and cold zone. These zones will remain in effect for the remainder of the incident.

USE OF NON-FIRE DEPARTMENT PERSONNEL

In some cases, it may be advantageous to use non-fire department personnel to evaluate hazards and perform certain functions within their area of expertise. Credentials must be verified through the Incident Commander. No other persons shall be allowed into the hazard area under no circumstances.