

TAB #9: Emergency Response Procedures at a Contaminated Site

DESCRIPTION:

Site assessment and remediation activities are two of the most important action elements in response to "release" or "spill" incidences. Proper planning for effective initial response to a release and/or spill incident is critical to the limiting of both the degree of hazard and the extent of contamination.

CONTINGENCY PLANNING Contingency planning is essential for a successful response to a hazardous material incident. A Contingency Plan should be developed for sites having the potential to release contaminants. The plan can be subdivided into the following six areas:

- **Activation:** This section deals with how emergency calls are processed and emergency action initiated. The words "24 Hour Emergency Calls" should be prominently displayed in the text. Emergency calls should be processed with the aid of a pre-printed response form, entitled Pollution Incident Report.
- **Response Tasks:** This section should provide sufficient information to minimize the danger posed to those first on the scene (e.g. evacuation procedures, initial handling of hazardous materials, and protective equipment).
- **Organizational Structure:** An organizational structure should be included in the plan. An on-site coordinator should be identified, as well as the personnel needed for the response and a description of their general functions. A contact list should also be provided.
- **Health and Safety Program:** The most important consideration of an emergency response is the health and safety of personnel at the site. **TAB #11** deals with health and safety considerations at contaminated sites. It should be used in conjunction with this TAB when addressing an emergency response situation.
- **Characteristics of the Site:** A site characterization should be included in the plan. It should contain information pertaining to the site's physical structures, the contaminants present, the terrain and hydrogeology, and the nature and proximity of exposures.
- **Preparedness:** Emergency response scenarios should be developed and practiced.

EMERGENCY SITE MANAGEMENT

This section outlines the various steps that should be taken during an emergency response. The procedures listed below are general guidelines and should be modified to meet the needs of your site. Preliminary control measures should be put into place as soon as is safely possible. In some cases, preliminary control measures can be installed before a complete characterization is undertaken. **Remember to give priority to health and safety.**

Step #1: Initiating the Emergency Response

In cases where an emergency response plan is in place, the plan should identify the measures required to initiate the emergency response. Where there has been no planning, information should be obtained and recorded on the **Pollution Incident Report Form**, and personnel and resources should be assembled to manage the site.

In the event of a spill/discharge at a Federal Facility in Ontario, report the incident as soon as possible to: The Ontario Ministry of Environment (MOE) Spill Action Centre; (416) 325-6000 or 1 (800) 268-6060.

Step #2: Off-Site Characterization

As much information as possible should be gathered **before site entry**, so that all potential hazards may be assessed, and measures developed to protect initial entry personnel. It is particularly important to identify the conditions that pose an Immediate Danger to Life and Health (IDLH). There are two main sources of information during the off-site characterization phase: **Documentation Review/Interviews, and Perimeter Reconnaissance.**

The information obtained from the off-site characterization phase should be used to determine the work to be accomplished, the safety procedures to be followed, and the personal protective equipment (PPE) to be worn by the response team throughout the on-site characterization.

Step #3: On-Site Characterization

On-Site Characterization provides the information required to identify specific site hazards and to determine the appropriate health and safety procedures needed to protect employees and the public from the hazards throughout the emergency response. It is critical that this information be as accurate, detailed, and comprehensive as possible, so that procedures can be tailored to specific hazards that will be encountered.

Step #4: Hazard Assessment

After the available information is collected, the degree of risk can be established (refer to **TAB #2**).

Step #5: Control of Hazardous Materials

Control can be defined as those methods which prevent or reduce the impact of the incident. Preliminary control measures are generally instituted as rapidly as possible in emergency situations. As additional information is developed through recognition and evaluation, control actions are modified. **Personnel and public safety is always given priority in an emergency response.**

Step #6: Monitoring

On-going characterization is required to enable constant monitoring of worker and public safety. Monitoring should continue on and off-site throughout the duration of the emergency response. When a significant change occurs, the hazards should be re-assessed, and practices modified to conform to new hazards.

Proper and accurate documentation of communications, the quality of data collected, and the rationale given for making safety decisions are important. They could be needed as evidence in case of legal action. The documentation required is site-specific.

FOLLOW-UP REPORTING

Follow-up reporting is an essential component of Emergency Response Protocols. Reporting should include a full description of the incident, the emergency response procedures that were implemented, and conclusions about the effectiveness of the response.

SOURCES

GZA GeoEnvironmental, Inc. (1991). *OSHA Hazardous Material Incident Response Operations Training Course*.

Lambton College (1991). *Transportation of Dangerous Goods-Emergency Response*.

Operating Engineers (Local 115) Joint Apprenticeship and Training Plan (1991). *Occupational Health and Safety Guidance Manual for Contaminated Sites Activities*.