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**Hazmat Response Contingency Plan**

Read in conjunction with Overstrand Disaster Management Plan

**Introduction**

In industries where the handling, processing and storage of hazardous substances are central to operations, the establishment of a Hazmat Response Contingency Plan is critical. This plan serves as a comprehensive framework designed to mitigate the potential consequences of major incidents, such as fires, explosions, or chemical releases, within the facility. By outlining proactive measures, response protocols, and recovery strategies, the contingency plan aims to safeguard personnel, surrounding communities, and the environment while ensuring continuity of operations. Through meticulous risk assessment, robust emergency response procedures, and regular drills and training, organizations can effectively manage and mitigate the risks associated with major hazards, demonstrating a commitment to safety, resilience, and responsible industrial practices.

The plan has been prepared to ensure quick access to all the information required in responding to an emergency event. Personnel are expected to comply with all procedures described in this document.

**Purpose**

The purpose of the Emergency Preparedness and Response Plan is:

- To assist personnel to prepare for and respond quickly and safely to MHI (Major Hazard Installation) incidents, and to establish a state of readiness which will enable prompt and effective responses to possible events.
- To control or limit any effect that an MHI incidents or potential emergency may have on site or on neighboring areas.
- To facilitate emergency responses and to provide such assistance on the site as is appropriate to the occasion.
- To ensure communication of all vital information as soon as possible.
- To facilitate the reorganization and reconstruction activities so that normal operations can be resumed.
- To provide for training so that a high level of preparedness can be continually maintained.

**Standard Operating Procedures include the following:**

- Identification of areas where accidents and emergency situations occur.
- Identification of communities and individuals that may be impacted.
- Response procedure.
- Provisions of equipment and resources.



- Designation of responsibilities.
- Communication.
- Periodic training to ensure effective response to potentially affected communities.

**Dispatch:**

In most circumstances the Fire Services will be called first to such an incident. The following agencies must also be notified and alerted, depending on the magnitude of the incident:

- Disaster Management
- Traffic
- Law Enforcement
- Social Services
- Health Services (EMS)
- SAPS
- Overberg District Municipality

Response to the incidents will not be limited to the above, but as initial activation the above role players will be informed. The Incident Commander will request more resources as the needs sees fit.

**Command and Control**

For the purpose of this contingency plan, Command will be assumed in terms of the Fire Brigade Services Act, No 99 of 1987 by the most senior Fire Service representative. Legislative mandates may however apply in exceptional cases.

Emergency Services have adopted an acronym to build a report for alerting others about the incident. It is the recognized model for passing incident information between services and their control rooms. The first arriving officer must report according to METHANE:

METHANE stands for:

- M**ajor Incident declared
- E**xact location
- T**ype of incident
- H**azards
- A**ccess
- N**umber and type of casualties
- E**mergency services present and required

**Establishment of an Incident Command Post:**

- As soon as reasonably possible, an Incident Command Post must be established to indicate the position of the ICP. The ICP must be situated in such a position that access control and other administrative activities can be easily administered. The ICP can also be housed in a building or other structure depending on the availability thereof and the circumstances.
- The senior member must act as Incident Commander until the official Incident Commander has been appointed. This member will remain in control of the scene until he/she can hand the scene over to the Incident Commander.
- The Incident Command (IC) will consist of a command team made up by a representative from each agency represented at the scene. The representative must be able to take decisions on behalf of his/her agency and have them executed. The agency representative must always be available at the ICP.
- Depending on the size of the incident, the ICP staff should consist of the following, in addition to the agency representatives:
  - Safety Officer



- b. Weather Officer
  - c. Support Coordinator
  - d. Public Liaison Officer
  - e. Communications Officer
  - f. Technical advisors
- e) It is important that cognizance be taken of the fact that the IC is in overall command of the incident. Each discipline will still have its own functional command structures in order to execute their specific duties and responsibilities on the scene effectively.
- f) The main role of the IC is to coordinate all actions on the scene and to control activities that may have mutual effects.

## **Roles and responsibilities**

### **Emergency control & ICC**

- Activation of Emergency Response Team
- Communication and Coordination
- Monitor the Situation
- Document and Report
- Follow-up and Support

### **Fire Service**

- Establish Command (ICS)
- Protecting incident scene.
- Suppressing fires.
- Providing emergency care, triage, and transportation of injured personnel.
- Ensuring that there is a discipline specific incident commander.
- Managing hazardous material (HAZMAT) response.
- Rescuing victims.
- Assisting in incident clearance.
- Assisting with evacuation procedures.
- Conducting media liaison activities.
- Assisting with pre-incident plans.
- Communicating with all stakeholders.
- Conducting investigation of the incident.
- Offering rehabilitation of the affected staff.
- Debriefing of staff.
- Managing record keeping.

### **Disaster management**

- Providing rehabilitation for injured staff etc.
- Assisting with evacuation procedures.
- Assisting with pre-incident plans and contingency plans.
- Assisting with communications with all stakeholders.
- Arranging transportation of non-injured patients
- Conducting media liaison.
- Ensuring that the incident control center is operational.
- Ensuring that there is a discipline specific incident commander.
- Managing record keeping.

### **Traffic**

- Securing the scene.
- Safeguarding personal property.



- Conducting discipline specific accident investigations.
- Ensuring that there is a discipline specific incident commander.
- Managing scene clearance.
- Assisting disabled motorist.
- Directing traffic.
- Managing road closures.
- Assisting with evacuation procedures.
- Ensuring there is pre-incident plans.
- Conducting Media liaison activities.
- Assisting with crowd control.
- Communicating with all stakeholders.

### **Social service**

- Providing support in the form of emergency housing, food, water, and other resources.
- Managing record keeping of affected members of the community.

### **Local Law enforcement**

- Assisting with crowd control.
- Conducting investigation of the incident.
- Communicating with all stakeholders
- Securing of incident/property.
- Managing record keeping.
- Conducting media liaison.
- Assisting with road closures.

### **External Agencies**

#### **Police service (SAPS):**

- Assisting with crowd control.
- Ensuring that there is a discipline specific incident commander.
- Conducting investigation of the incident.
- Communicating with all stakeholders
- Securing of incident/property.
- Managing record keeping.
- Conducting media liaison.
- Assisting with road closures.

#### **Health service (EMS):**

- Ensuring that there is a discipline specific incident commander.
- Managing record keeping of patients, injuries, treatment
- Communicating processes to other health establishments in case of transportation of injured patients to other establishments
- Implementing emergency plan9s) for major incidents
- Communication to metro control
- Assisting with additional medical resources to an incident scene

#### **District Municipality fire and emergency service.**

- Protecting incident scene.
- Suppressing fires.
- Providing emergency care, triage, and transportation of injured personnel.
- Ensuring that there is a discipline specific incident commander.



- Managing hazardous material (HAZMAT) response.
- Rescuing victims.
- Assisting in incident clearance.
- Assisting with evacuation procedures.

## **EARLY WARNINGS SYSTEM**

Implementing an effective early warning system for a Major Hazard Installation (MHI) is crucial for ensuring the safety of personnel, nearby communities, and the environment.

**1.Risk Assessment:** Conduct a thorough risk assessment to identify potential associated hazards, including fire, explosion, chemical release, and their potential impact on surrounding areas.

**2.Emergency Response Plan:** Develop a comprehensive emergency response plan outlining procedures for responding to different types of hazards or incidents. Ensure all personnel are trained on the plan and know their roles and responsibilities in the event of an emergency.

**3.Hazard Identification:** Identify the specific hazards present within the installation, such as chemical, fire, or structural risks. Understand the potential consequences of these hazards to the facility, personnel, and surrounding environment.

**4.Emergency Communication Protocols:** Establish clear communication protocols to relay emergency information to relevant stakeholders, including employees, emergency responders, local authorities, and the public. Designate specific individuals or teams responsible for activating alarms, communicating with authorities, and coordinating response efforts.

**5.Training and Drills:** Conduct quarterly checks to ascertain if training exercises and emergency drills to familiarize personnel with the early warning system, evacuation procedures, and emergency response protocols has been done. This helps ensure a rapid and coordinated response in the event of an actual emergency.

**6.Continuous Improvement:** Regularly review and update the early warning system based on lessons learned from drills, incidents, and technological advancements. Incorporate feedback from stakeholders to enhance the effectiveness and reliability of the system over time.

**7.Coordination with Authorities:** Establish strong partnerships with local emergency management agencies, fire departments, law enforcement, and other relevant authorities to facilitate timely response and coordination during emergencies.

**8.Testing and Maintenance:** Regularly check that tests and maintenance on monitoring devices and alarm systems has been done and to ensure they are functioning properly. Conduct routine inspections and request calibration certificates as needed to maintain accuracy and reliability.

## **SAFETY ZONES**

The information contained under the safety zone is extracted from the Western Cape Hazmat Response Plan and can be amended from time to time. The information will be updated as the Response Plan is updated.

After the scene has been surveyed, safety zones are established in order to keep control of the scene for personnel and public safety. In order to execute control on scene it is divided into 3 zones; hot



zone, warm zone and cold zone. Access to zones is restricted to personnel who need to be working in a specific zone – this includes officials who are not performing responder duties. Entry and exit registers must be kept for the hot and warm zones.

The size of the zones can change, depending on the magnitude of the incident and weather conditions. The detection teams must conduct monitoring on the perimeter on a regular basis.

Conditions may differ as a result of weather conditions, available space, topography (high or low-lying areas). Such differences must be taken into consideration when establishing safety zones.

#### HOT ZONE

- a) The hot zone is the area at the center of the incident where a detectable vapour or other hazard exist
- b) The perimeter of the hot zone is determined by means of monitoring and includes the down-wind hazard area where hazardous vapours, gas, mist or dusts are detectable
- c) The hot zone may only be entered by specific functions conducted by trained personnel dressed in appropriate protective ensemble. The Safety Officer in conjunction with the Incident Commander and Agency Commanders will determine the level of protection required in the hot zone.

#### WARM ZONE

- a) The perimeter of the warm zone is established half distance to the radius of the hot zone, up-wind from the perimeter of the hot zone. For example, if the distance from the center of the hot zone to its perimeter is 100 meters, the distance from the perimeter of the hot zone to the perimeter of the warm zone would be 50 meters
- b) If a secondary device is present (in the case of explosions) it is likely to be in the warm zone. The warm zone is only established up-wind of the incident. The perimeter of the warm zone must be marked in an identifiable manner that is clearly distinguishable from that of the hot zone.
- c) The warm zone is utilized for decontamination of personnel, casualties and equipment and samples where applicable. It also serves as a safety barrier between the hot zone and the cold zone. Only personnel dressed in applicable protective ensemble, as determined by the Incident Commander, may enter the warm zone. All personnel must be decontaminated before exiting the warm zone.
- d) Other terms used to identify the warm zone are “restricted zone and yellow zone”.

#### COLD ZONE

- a) The area outside the perimeter of the warm zone is the cold zone. The cold zone is only established up-wind from the incident. The up-wind perimeter of the cold zone must again be marked clearly and differently from the zones.
- b) The cold zone is the zone that contains the command and support elements, which may consist of the ICP, sectors for different agencies, the staging sector into the warm zone, dedicated media sector, access and egress routes. Non-essential persons should not be allowed inside the cold zone, they should be accommodated elsewhere outside the cold zone.
- c) Other terms used to identify the cold zone are “safer zone and green zone”

