



# Polokwane Waste Tyre Pre-Processing Depot Emergency Preparedness and Response Plan

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## **APPENDIX J1: EMERGENCY PREPAREDNESS AND RESPONSE PLAN FOR POLOKWANE WASTE TYRE PRE-PROCESSING DEPOT**

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**Accident:** An accident arising out of and in the course of an employee's employment and resulting in a personal injury, illness or death of employee.

**Hazard:** A source of exposure to danger

**General Incident:** Is defined as minor incidents or non-conformances to the EMP that are confined to the operation area and/or have minimal impact on the environment with no long-term effects.

**Precautionary principle:** Where a risk is unknown; the assumption of the worst-case situation and the making of provision for such a situation.

**Receptor:** Sensitive component of the ecosystem that reacts to or is influenced by environmental stressors.

**Recycle:** The use, re-use, or reclamation of a material so that it re-enters the industrial process rather than becoming a waste.

**Reportable Incident:** Is defined as 'an unexpected sudden occurrence, including a major emission, fire or explosion leading to serious danger to the public or potentially serious pollution of or detriment to the environment, whether immediate or delayed' NEMA Section 30, 'includes any incident or accident in which a substance (a) pollutes or has the potential to pollute a water resource; or (b) has, or is likely to have, a detrimental effect on a water resource.' NWA Section 20.

**Responsible person:** Depot Owner/ Depot Manager or appointed representative is responsible for the incident;

**Relevant authority** means –

- i. Local municipality under which area of jurisdiction the incident occurred.
- ii. Head of Department or any other Provincial official designated with that responsibility where the incident occurred.
- iii. The Director-General
- iv. Any other Director-General of a national department

### **DEFINITION OF AN EMERGENCY SITUATION**

- An emergency situation can be described as:
- An Uncontrolled Fire/ Uncontrolled Explosion
- Uncontrolled Spillage and the Environment
- Bomb Threat
- Natural disasters — floods, heavy winds, lightning, and earth quakes.

No person will be allowed to enter the emergency area without specific authorization from the emergency controller in charge. Depending on the type of emergency, only the persons identified by the emergency

controller in charge, will enter the emergency area. All other personnel will gather at the emergency assembly points, depending on the type of emergency.

Boundaries of emergency response will be determined by the size of the emergency, the material involved in the emergency e.g. hazardous material/ explosive material and the direct impact on the surrounding areas.

When needed, the SHEQ Official will determine where and how the safe barricading of an emergency area will take place.

## 1. PURPOSE AND SCOPE

(a) To ensure that all depot personnel are familiar with hazards of their work environment and that they are prepared for emergencies and understand the procedures that need to be followed in cases of emergencies.

(b) To minimise the possibility of injury and loss of life and damage to property, equipment, product and environment.

(c) That all incidents are recorded and reported to the relevant bodies (REDISA and relevant government Departments) within legislated timeframes (where specified).

(d) To outline the actions that needs to be taken in case of emergency arising at the depot.

This procedure is applicable to, people working for or on behalf of the company, Contractors, Service Providers, Ad Hoc Contractors, deliveries, visitors and all other personnel on site during an emergency situation. Definition of the word "Personnel" -It refers to employees, people working for or on behalf of the company, Contractors, Service Providers, AD-Hoc Contractors, deliveries, visitors and all personnel on site all the Polokwane Waste Tyre Depot

## 2. SITE DESCRIPTION

Phasha Property Investments CC, a small, medium and micro enterprise (SMME) supported by the Recycling and Economic Development Initiative South Africa NPC (REDISA), is currently operating a Waste Tyre Pre-processing Depot on Farm Plot 10 in Geluk outside Polokwane (off R71 towards Tzaneen); S: 23° 54' 15.09" E: 29° 32' 2.42", Limpopo Province. The activities being undertaken on site involve bailing of tyres in a waste management facility that has a total operational area of ±10500m<sup>2</sup> (of which ±200m<sup>2</sup> is the baling area/ warehouse and ±10300m<sup>2</sup> is the storage area). The types of tyre waste being handled on site include the following:

- Passenger vehicle tyres
- Truck tyres
- Motorbike tyres and
- 4x4 vehicle tyres
- Light commercial vehicle tyres
- Off-The-Road tyres (OTR) with <35inch/89cm diameter.

The operation is mechanized and involves the following process:

### **Storage of Tyres**

Receiving, offloading and sorting of waste tyres at the temporary storage area, according to tyre sizes. Waste tyres are offloaded manually/by use of support vehicles, e.g. forklift, depending on size of tyres; stacked and

stored according to the requirements of the Waste Tyre Regulations, R. No. 149 of 13 February 2009. Once tyres have been stockpiled and stored on site, they are subject to the following pre-processing activities:

### Baling

The baling of waste tyres is through mechanised processes. The baling is designed for compaction of waste tyres. The machine is placed on a flat base on a 3m x 3m floor space, operating from a 415V 3-phase supply. The material is then deposited in the large capacity loading chamber and then compressed by the twin vertical rams. When enough material exists in the chamber to form a bale, the wire is then secured around the material and a bale material is produced. Bales are then moved from the baling area using a forklift vehicle and baled tyres are temporarily stored in the storage area. The material on average is compressed to 1/5 (average) of its original volume.

### Bales and Waste Tyres

The bales and other tyres are removed from site on a daily basis by approved transporters and delivered to approved processors for recycling purposes. Please refer to Figure 1 below for the process flow diagram. Infrastructures available at the depot include an administration building with a staff change room, ablution facilities area and a shaded area for baling activities. The depot is operated by Phasha Property Investments CC and employs 9 permanent staff members.

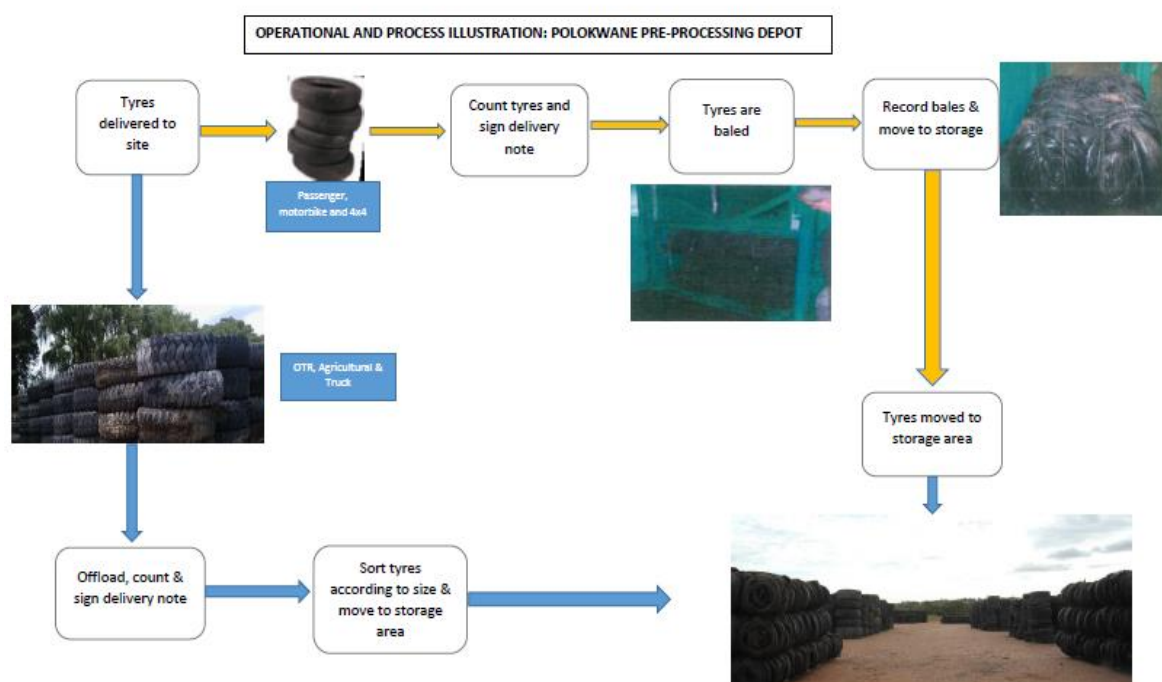


Figure 1: Operational and Process Flow Diagram

There is a possibility of an emergency situation such as;

- Injury to persons,
- Fires,
- Damage to machinery and/or vehicles, etc. as a result of work process and waste handled, hence the Emergency Preparedness and Response Plan is developed.

### 3. EMERGENCY CONTACT DETAILS

The following emergency contact details must be on display at the site office:

<b>Emergency Services</b>	
Depot Manager/Health and Safety Representative: Oscar Phasha	084 4579370
Local Fire Department	(015)2902623
Provincial Dept. of Environmental Affairs	
Local SAPS office	015-2906577
Netcare/ Hospital	911

**Or Dial 112 from your Mobile  
No air time required this is a free call**

<b>Site Emergency Personnel</b>	
Health and Safety Representative	
Fire Team Leader	
First Aider	

### 4. DESIGNATED EMERGENCY AREA

In the event of an evacuation, all personnel must proceed to the identified **Assembly Point**, located just outside of the entrance gate to the depot.

### 5. DUTIES OF THE APPOINTED PERSONNEL

Appointed personnel have undergone the necessary training and have been officially appointed to take on the duties, as detailed in the appointment letters. The appointment letter can be viewed in the Safety, Health and Environmental File at the depot office.

#### 6.1 HEALTH AND SAFETY REPRESENTATIVE

- » Review the effectiveness of the Health and Safety measures within depot.
- » Assess the potential hazards to the Health and Safety of the employees.
- » Investigate complaints from the employees relating to their Health and Safety
- » Maintain the Complaints and Incidents Register
- » Inspect the workplace and report on such inspection, and the aspects mentioned above, to REDISA
- » Conduct investigations into incidents
- » Attend Health and Safety Committee Meetings as per the aspects mentioned in Section 19 and 20 of the OHSAct
- » Participate in all aspects of Health and Safety at the depot

## **6.2 FIRE TEAM LEADER**

The Fire Team Leader's responsibility includes:

- » Leading and supervising the depot personnel in a fire evacuation.
- » Formally inspect firefighting equipment monthly and informal inspections conducted periodically during the month.
- » Take corrective/preventive action for any non-conformances, and report to Depot Manager.
- » Make all employees aware of appointment as fire team leader.
- » Conduct fire drills at least once every six months.

## **6.3 FIRST AIDER**

The First Aider's responsibilities include:

- » First aid treatment activities within the depot.
- » Ensure that the first aid box is adequately stocked at all times by scheduling a stock check inspection.
- » Ensure that your first aid box is maintained in a neat, tidy and clean condition.
- » Ensure that your identification as a first aider is visible on the first aid box.
- » Ensure that your first aid box is ready for monthly inspections by your Health and Safety Representative/Depot Manager.

## **6. SITE SIGNAGE**

The Depot Manager must ensure that appropriate signage is in place at the entrance to the site as well as at identified areas within the depot. Personnel must make sure that they understand and obey all signs in and around the work area. The Depot Manager/Health and Safety Representative must provide training to all personnel on dangers of their work areas.

## **7. FIRE EQUIPMENT**

Fire equipment must be installed according to the requirements of the Municipal Fire Department and in absence of that, the Depot Manager should comply to REDISA's minimum Fire equipment requirements for his/her particular depot.

## **8. FIRST AID**

A First Aid Box must also be kept at the depot with appropriate signage, and it is recommended that it be located near the Assembly Point.

## **9. EMERGENCY PROCEDURE**

Depot personnel must receive appropriate training from accredited training providers, to take on respective Health and Safety roles in the following (as a minimum);

- » Basic Fire Fighting,
- » First Aid,
- » Health and Safety Representative.

All Emergency personnel must be officially appointed and the signed letters must be filed in the Health and Safety file for record keeping.

**All personnel must know the following:**

- » Escape routes
- » Assembly point
- » Alarms
- » Fire fighter(s)
- » First Aider
- » SHE Representative

In the event of an emergency (e.g. bomb scare, power failure, natural disaster, fire):

- » Phone emergency services
- » Stay calm
- » Give proper information and directions
- » Direct the emergency team to the incident site

Not knowing what to do in an emergency could kill you. Make sure you know the following:

- » Correct use of extinguishers
- » Escape routes
- » Assembly points and procedures

**The Site Emergency Procedures considered:**

**FIRE**

**Small fire** — use nearest fire extinguisher to extinguish fire. Make sure that the correct type of extinguisher is used for the type of fire (electrical/paper/wood, liquid flammable etc.)

- Report incident to supervisor and complete incident form.

**Major fires**

- 1) Major Fire - out of control — person who discovers the fire must make alarm and inform supervisor immediately.
- 2) Trained firefighting employees to start fighting fire - make use of fire hoses/ fire hydrants to fight fire without endangering own safety.
- 3) If the fire cannot be extinguished within five minutes the emergency alarm must be sounded and the area/building must be evacuated.
- 4) Supervisor/Emergency Controller to call Emergency Services if the fire cannot be handled by internal staff.
- 5) Depot Manager to confirm that the Fire Department has been advised.
- 6) Tackle the fire, if possible, to avoid spreading.
- 7) Ensure correct PPE and firefighting equipment is utilized.
- 8) Coordinate all firefighting activities until the fire brigade arrives.
  1. Hand control to the fire brigade on arrival.
  2. Assemble at the designated assembly area in front of the entrance gate. Remain there until Depot Manager confirms it is safe to go back inside. Do not return to the premise for any reason until authorized to do so.

# SHORTENED EMERGENCY PROCEDURE



## FIRE



### IN THE EVENT OF A FIRE

	<p>If it's a small fire, use the nearest fire extinguisher. <b>Make sure that the correct type of fire extinguisher is used for the type of fire (electrical/ paper/ wood?)</b></p>
	<p>If it's a big fire, or the fire is out of control or big volumes of flammable liquids / materials are present in the vicinity of the fire, <b>activate the nearest emergency alarm for evacuation!</b></p>
	<p>The evacuation must take place <b>orderly to the emergency assembly point outdoor.</b></p>
	<p><b>Stay calm and call the Emergency Services</b></p>
	<p><b>Explain the location of the fire. Give directions to the area/ building/offices /fire and a contact number as well</b></p>
	<p><b>At the emergency assembly point, the emergency controller/ supervisor must take roll call to determine if all employees have left the area. If someone cannot be accounted for, the emergency services must be informed immediately upon arrival.</b></p>
	<p><b>Only after the emergency services have declared the area safe may personnel return back to their work stations.</b></p>



## Bomb Alert:









### On being made aware of a bomb alert:

- 1) Do not panic.
- 2) Power down all equipment if it is safe to do so.
- 3) Take your personal effects with you.
- 4) Leave the premise at the nearest fire escape route as quickly as possible. LEAVE ALL DOORS OPEN.
- 5) Assemble at the appropriate assembly point. Remain there. Do not return to the premise for any reason until authorized to do so.

## SHORTENED EMERGENCY PROCEDURE BOMB THREAT



### IN THE EVENT OF A BOMB THREAT

	<b>When receiving a bomb threat telephonically, stay calm and complete bomb threat questionnaire.</b>
	<b>Hang up immediately when finished and inform your emergency controller/ supervisor</b>
	<b>Do not activate the alarm! Emergency controller/ Supervisor informs other employees to evacuate the building orderly to the emergency assembly point</b>
	<b>The Emergency Controller/ Supervisor calls the Emergency Services - 10111</b>
	<b>Give information on the bomb threat received. Give directions to the area/offices/building and a contact number and any other information available from questionnaire when asked</b>
	<b>All employees must assemble outdoor, move in a group away from the emergency assembly point to a far safe distance. Stay together.</b>
	<b>The emergency controller/ supervisors must take roll call to determine if all employees are present. If someone cannot be accounted for, the emergency services must be informed immediately upon arrival.</b>
	<b>Only after the emergency services have declared the area safe may employees return back to their work stations.</b>

## Dealing with snakes

- 1) If a snake is observed, immediately report to the Depot Health and Safety Representative/Depot Manager.
- 2) Snake to be left alone and monitored.
- 3) Local snake handler must be contacted immediately to come and remove the snake.
- 4) If Employee is bitten by snake, report to the Depot First Aider/ Depot Manager, to attend to the matter immediately.
- 5) Record incidents and report to REDISA, as per Procedure

## Spill Response

Responsible Person/s

The spill is reported to the **safety representative/Depot Manager**

All employees/sub-contractors should be made aware of the procedure in case of a spill/leaking of hydrocarbons from haulage vehicles or operation machinery.

The Depot Manager should report to **relevant authorities** if contamination occurs and if spill falls within the definition of an emergency incident.

- **Procedure**

- 1) Identify nature and size of spill e.g. oil 20L. Consult MSDS for safety precautions
- 2) Prevent entry of substance to Storm water drainage line.
- 3) For a small spill (less than a liter, locate spill kit, contain spill according to the training from the spill kit suppliers
- 4) For large spill (unable to deal with on-site), contact external spill control contractors
- 5) Determine appropriate method for disposal of material based on information provided in MSDS
- 6) Determine if any contamination has occurred i.e. entry to Storm water, soil contamination etc.
- 7) If contamination has occurred, consult with authorities on need for on-going monitoring and or rehabilitation requirements.
- 8) If no contamination has occurred, determine if spill falls under definition of an "incident" and if so, report to relevant authorities.
- 9) Record in Incidents register
- 10) The ECO should review all spill reports
3. Adjustments should be made, if necessary, to the operational and emergency procedures to prevent future occurrences

# SHORTENED EMERGENCY PROCEDURE



ik-Leaf Emergency

## SPILLAGE



### IN THE EVENT OF A SPILLAGE

	<p><b>If possible, the specific contributor/ area and/or item causing the spillage must immediately be shut down safely.</b></p>
	<p><b>Priority will be given to contain the spillage to only the area involved (use saw dust or any other means to contain ANY harmful material from entering soil and water ways)</b></p>
	<p><b>Assure that correct PPE are used at all times.</b></p>
	<p><b>If the spilled product is of a Hazardous Substance (diesel, etc) nature, and the spillage is in large quantities, the area must be evacuated to a safe distance away at an emergency assembly point.</b></p>
	<p><b>No open flames/ smoking or moving vehicles will be allowed near the area.</b></p>
	<p><b>The emergency controller/ supervisors must take roll call to determine if all employees are present. If someone cannot be accounted for, the Emergency Services must be informed immediately upon arrival.</b></p>
	<p><b>Only after the Emergency Services have declared the area safe may personnel return back to their work stations.</b></p>

## HEALTHY AND SAFETY

At present there is very limited attention to emergency preparedness and response planning with respect to environment and community, as can be expected at this stage of the project. PHASHA PROPERTY INVESTMENTS CC does not currently have an emergency preparedness and response policy, however in terms of PHASHA PROPERTY INVESTMENTS CC's safety and health principles PHASHA PROPERTY INVESTMENTS CC is committed to preventing injuries or illnesses among their employees, customers and the wider community arising from work performed on site. The following Safety and Health aspirations have been established for the project:

- No harm to people;
- Zero medical incidents;
- All injuries to be reported and investigated timeously;
- All near misses to be reported and investigated; and
- Lessons from incidents to be shared as soon as possible.

PHASHA PROPERTY INVESTMENTS CC however recognises the need to develop an overall EPRP that coordinates and guides actions that are taken with respect to emergencies that may result in environmental and social risks to employees, communities and the environment.

### 10. PROCEDURE FOR REPORTING OHSA INCIDENTS

1. Upon happening of an incident whether minor or major the Divisional Depot Manager must be notified by the Depot Manager.
2. The Divisional Depot Manager will assess the severity of the injury.
3. If minor injury then enter in log, else,
4. Upon the happening of any incident, which results in injury or illness to any person, to such a degree that death or permanent physical defect may result, the Depot Operator shall report such incident to the Provincial Director of the Department of Labour and also report it to REDISA where the Depot Operator is a third party.
5. The Depot Operator shall report such an incident immediately after it has occurred telephonically and keep the relevant record of the conversation to confirm that it has been reported.
6. The Depot Operator must report injuries to the Workmen's Compensation Commissioner within 7 days after occurrence.
7. The Depot Operator shall report such incident in the form WCL 2 as published in the Compensation for Occupational Injuries and Diseases Act, 130 of 1993.
8. Upon the happening of any incident, other than those mentioned in paragraph 1 above, the Depot Operator should give notice of the incident to the Provincial Director of the Department of Labour in the form WCL 2 within fourteen days of the incident having occurred.

9. When an injured person dies as a result of his/her injuries after notice of the incident in which he/she was injured has been given in terms of paragraph 4, the Depot Operator shall notify the Provincial Director of the Department of Labour of his/her death.
10. The Depot Operator will keep a record for a period of at least three years, which record shall be open for inspection by an Inspector, of all incidents which is required to be reported in terms of section 24 of the Occupational Health and Safety Act and also of any other incident which resulted in an employee or any other person having had to receive medical treatment other than first-aid.
11. The Depot Operator shall cause every incident, which must be recorded in terms of section 24 of the Occupational Health and Safety Act to be investigated by a person designated by the Depot Operator who may be a member of a health and safety committee, within three months or within the contracted period in the case of contracted workers.
12. The Depot Operator will ensure that the findings in terms of an investigation conducted under this paragraph will be entered into such record.
13. The Depot Operator will ensure that such record will be examined by the health and safety committee for that section of the workplace at its next meeting and shall ensure that the chairperson of the health and safety committee endorses the record to the effect that it has been seen and that the necessary actions have been implemented and followed up.

## **11. PROCEDURE FOR REPORTING ENVIRONMENTAL INCIDENTS (section 30 of NEMA, 1998)**

### **12.1 Take Immediate Action**

- i. Report to site manager immediately
- ii. Site supervisor to assess the extent of the incident and immediately contact authorities if the incident cannot be managed on site, i.e. uncontrollable fires.
- iii. Incident must be controlled to prevent further damage to environment and personnel.
- iv. Fires: A trained Fire fighter to put out fire using the available fire equipment
- v. Spills: use tools available on site to contain spill and prevent material from spreading
- vi. Assist any persons that may have been in the incident area to a point of safety

### **12.2 Secure Scene**

- i. Restrict access to the affected area until risk is eliminated or reduced
- ii. Make contact with emergency team for action and investigation

### **12.3 Collect Evidence**

- i. Take pictures of the incident area. Do not move items around!
- ii. Record observations as per training provided.

## **12.4 Identify and Interview**

- i. Conduct an investigation into the cause of the incident
- ii. Interview personnel working in affected area to get to the cause of the incident
- iii. Record all findings for reporting purposes

## **12.5 Analyse Evidence**

- i. Analyze evidence and prepare summary of findings, likely cause of incident and extent of damage to property/environment/personnel, for discussion at internal Health and Safety Committee meeting.

## **12.6 Controls**

### **a. Clean-up**

- i. Report incident to authorities, e.g. Municipal SWM and Provincial EA
- ii. Clean up the affected area and dispose of the spoiled soil/waste material in a facility licensed to manage the type of waste OR where specialist service providers would be required
- iii. Source an accredited external service provider to do the clean-up

### **b. Incident review**

- i. Hold a meeting with emergency team and review incident
- ii. Identify controls to be put in place to prevent recurrence of incident
- iii. Put structures (equipment, personnel, etc.) in place to enable effectiveness of
- iv. controls

## **12.7 Reporting**

- i. The incident must be logged in the incident register.
- ii. The Depot Manager must prepare an action plan within 14 days of incident, which will have time schedules and resource allocation and must include the following:
- iii. Actions to correct the impact resulting from incident
- iv. Actions to prevent incident from causing further environmental damage
- v. Measures implemented to prevent recurrence of incident
- vi. The report must be submitted to the authorities, e.g. Municipal SWM, Provincial EA, DWA, etc.
- vii. In 21 days, the Depot Manager must report on what measures were implemented to control, mitigate, rehabilitate and the investigations that are likely to take place, as had been previously addressed in the action plan mentioned in point 6(ii) above.

## **12.8 Documentation**

- i. Site EMP/Emergency Preparedness must be reviewed after each incident
- ii. Incident report must be filed in the documents file.

## 12.9 Follow –Up

Depot manager must do a follow-up and ensure that all controls agreed to are put in place.

### 13 TRAINING AND AWARENESS

- Training and communication of procedures governing the management of EHCs and emergency response plans should be done in simple language that is easily understood by relevant staff.
- Sites must ensure that the necessary emergency response equipment and response team skills are maintained.

## 12. TOOL BOX TALKS

The Depot Manager should have weekly toolbox talks; staff should be afforded an opportunity to raise any health, safety or environmental issues of concern.

### 13. REVISION

The Emergency Preparedness and Response Plan must be reviewed annually, whenever an incident occurs or when the Depot Manager is of the opinion that changes should be made

Emergency preparedness and response plans shall be maintained current to ensure that appropriate responses can be taken following incidents involving environmentally hazardous chemicals (EHCs) that can threaten the safety of people and the environment. Where appropriate, for example with transportation incidents, these plans should be coordinated with local and regional emergency response agencies.

# APPENDIX A: FIRE EMERGENCY PLAN

