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Drawings

ESSD B Sensitive Receptor Plan

1. Introduction

- 1.1. There is a requirement that an Environmental Accident Management Plan be produced which can be put into action as and when required. This document has been produced to meet this requirement and to provide guidance to prevent or reduce the impacts that accidents occurring at NRS Saredon Aggregates Ltd, Great Saredon Road, Saredon, Staffordshire, WV10 7LL (Site) may have on the surrounding environment. This Environmental Accident Management Plan forms part of the Environmental Management System (EMS) for the Site.
- 1.2. This Environmental Accident Management Plan has identified risks from the activities carried out that could damage human health or the environment, assessed how likely they are to happen, described the actions needed to minimise the potential causes and identified how to minimise the consequences if they do happen.
- 1.3. If an accident occurs, the Environmental Accident Management Plan must be followed, and all reasonable steps must be taken to protect the environment. A review of the Environmental Accident Management Plan may be necessary after an incident to help prevent its reoccurrence.
- 1.4. This Plan will be reviewed:
 - Every 4 years.
 - If an accident occurs.

2. Identification of Possible Accidents

- 2.1. Accidents are not always preventable, but identification of potential accidents will enable preventative measures to be developed at the Site in order that those accidents might be avoided.
- 2.2. A thorough investigation into the causes and types of accidents possible at the Site due to the waste operations has been carried out as part of the production of this report.
- 2.3. Those accidents identified as part of that investigation are as follows:
 - Leaks or spillages e.g., of liquids during refuelling.
 - Failure of plant or equipment leakages/puncture due to faulty pipe work, valves, over-pressure, blockages, corrosion, severe weather, ground movement and so on.
 - Fire
 - Cross-contamination.
 - Flooding
 - Failure of utilities i.e., water, gas, electricity.
 - Unauthorised entry and tampering or malicious damage to plant and equipment.
- 2.4. A Sensitive Receptor Plan has been produced for the Site that identifies the potential receptors within a 1km radius of the Site. Distances have been measured as the minimum distance between the permit boundary and the boundary of the receptorSensitive Receptor Plan.

3. Likelihood of Accidents

- 3.1. The likelihood of each of these accidents occurring is dependent on different scenarios, for example, under normal and abnormal working conditions, activities being undertaken and in worst-case scenarios, in terms of weather, temperature or breakdowns.
- 3.2. Each identified accident has been reviewed to determine the likelihood of occurrence and the preventative measures in place.
- 3.3. Where applicable, response actions are outlined for accidents following occurrence.

Leaks or Spillages

- 3.4. The environmental impact of leaks or spillages is the contamination / pollution of land, drains, groundwater, and watercourses.
- 3.5. Fuel and oil have the potential to leak (whilst being stored) or be spilled (during refuelling activities).
- 3.6. No fuel or oil is stored lin this part of the site; however, refuelling does take place on Site and fuel is transferred to Site using a tanker when required.
- 3.7. It is considered there is no risk associated with a fuel leak due to no fuel being stored on Site.
- 3.8. Plant operated on the Site consists of mobile plant including, front shovel loaders, excavators, crusher, wash plant and screen. There is the possibility that something may malfunction as blockages and corrosion of the plant could occur, which could cause a leak of fuel or oil. The likelihood of corrosion will increase depending on the age of the plant being used.
- 3.9. There is a potential for spillages in the event of refuelling of plant or vehicles oil and fuel tanks. Refuelling frequency is dependent on the level of activity on the Site. The low occurrence of refuelling on Site causes a low likelihood that spills will occur.
- 3.10. It is considered that the likelihood of spillage during refuelling is low due to no fuel or oil being stored on Site and the requirement for refuelling to be completed on level ground, for spill trays to be used and staff are trained in refuelling operations.

Failure of Plant or Equipment

- 3.11. The environmental impact of plant or equipment failure is the contamination / pollution of land, drains, and groundwater from the release of fuel, oil, hydraulic oil etc.
- 3.12. Plant operated on Site consists of front shovel loaders, excavators, wash plant, crusher and screen. There is the possibility that something may malfunction,

- the likelihood of failure will increase depending on the age of the plant being used.
- 3.13. It is considered that the likelihood of plant or equipment failure is low due to the preventative measures implemented on Site.

Fire

- 3.14. The environmental impact of fire is air pollution (from emission of smoke and particulates) and generation of firewater which can contaminate / pollute land, drains, and groundwater.
- 3.15. It is considered that the likelihood of onsite fires is low as authorised inert soils have less than 1% combustibility and are not explosive. The likelihood of fires is low due to the preventative measures implemented on Site:
 - Combustible, unauthorised wastes are rejected from Site, see EMS Procedures and Forms, Procedure.
 - Combustible, contravening wastes picked from stockpiles are stored in small quantities and in designated containers.
 - Combustible, contravening wastes picked from stockpiles are not treated and stored in their maximum particle size to allow for heat dissipation.
 - Implementation and maintenance of Site security measures will minimise the risk from arson and vandalism.
 - There is a no smoking policy on Site.
 - Maintenance on plant and equipment, including checking for hot exhausts and accumulation of dust, debris, grease, and oil.
- 3.16. The likelihood of fire is considered to be low due to the preventative measures implemented on Site.

Cross contamination

- 3.17. Cross contamination could occur from loss of containment of material which could cause contamination.
- 3.18. The likelihood of waste mixing is regarded to be low as any inert waste is discharged directly into the void.
- 3.19. Staff will implement the requirements of the Waste Storage and Handling procedure to ensure the correct storage of waste.

Flooding

- 3.20. Flooding can arise from heavy rainfall, settlement lagoon overflow, watercourse floodwater, blocked drains, burst water main and firewater.
- 3.21. It is considered that the likelihood of flooding is low due to the following:
 - It is considered that the likelihood of flooding is low from heavy rainfall due to the location of the Site in Flood Zone 1 (low risk of flooding from due to surface water features and water courses).

- It is considered that the likelihood of flooding is low from landscape pond overflow located in the waste reception area due to regular inspection of the drainage pumps located adjacent to the settlement lagoon.
- It is considered that the overflow of water from the surface water feature located adjacent to the waste reception area to the southeast is low. The south eastern perimeter of the waste reception area is bunded making it unlikely for water to overflow it.
- It is considered that the likelihood of flooding is low due to the underlying hardstanding (which allows for percolation and its regular inspection to check its integrity).
- It is considered that the likelihood of overflow of water from the settlement lagoons located in the landfill area is low. Any water that could overflow, will be contained within the void of the landfill and subsequently absorbed into the ground.
- It is considered that the likelihood of flooding is low from a burst water main.
 Water mains are only found in the waste reception area of the Site, the large concreted surface area would make it unlikely for a flood to occur due to a burst water main.
- It is considered that the likelihood of flooding is low due to low combustibility
 of authorised wastes and the use of inert material for fire suppression which
 reduces the quantity of firewater generated.
- 3.22. Weather conditions are recorded daily in the Site diary so flooding is unlikely to be unexpected, therefore, mitigation measures can be implemented to minimise environmental impact.

Failure of Utilities

- 3.23. The Site has mains electricity and water supply.
- 3.24. The Site does not have a gas supply.
- 3.25. The Sites waste operations do not rely on mains electricity or water supply, the Site would therefore remain operational in the event of a failure of utilities.
- 3.26. Due to the above it is considered that there would be little to no risk from failure of utilities at the Site. It is not considered that there would be an increase in the risk of environmental accidents occurring as a result of utility failure.

Unauthorised Entry

- 3.27. The environmental impact of unauthorised entry is dependent on the activities completed by the trespasser. This can include arson and malicious damage to plant or equipment.
- 3.28. Environmental impacts from these activities can include air pollution, firewater generation from fires, the contamination / pollution of land, drains, groundwater, and watercourses.
- 3.29. Due to the following the likelihood of unauthorised entry is considered to be low:

- It is considered that the likelihood of unauthorised entry is low due to the Sites implementation of security measures.
- It is considered that the likelihood of unauthorised entry is low due to the entrance of the Site having a gate which is locked out of operational hours.

4. Preventative Measures

4.1. The following preventative measures are in place for each of the identified accidents.

Leaks or Spillages

- 4.2. Refuelling operations are controlled which reduces the likelihood of leaks or spillages.
- 4.3. Staff will use the spill procedure to clear up and remediate leaks or spillages
- 4.4. Due to the above preventative measures the likelihood of leaks or spillages causing environmental harm is low.

Failure of Plant or Equipment

- 4.5. The Site implement the following preventative measures relating to failure of plant or equipment:
 - Pre-use checks are completed by staff prior to use to check for indicative features (e.g., leaks, electrical failure, increased noise, and vibration).
 - Planned preventative maintenance and servicing as per manufacturer guidelines.
 - Only trained staff using plant and equipment.
- 4.6. In the event of plant or equipment failure, actions outlined in EMS should be followed to mitigate environmental impacts.
- 4.7. If the failure has resulted in a leak or spillage, staff will implement the requirements of the spill procedure, EMS. This will minimise the environmental impact of the spill.
- 4.8. Due to the above preventative measures, it is considered the likelihood of failure of any plant or equipment to cause environmental harm is low.

Fire

- 4.9. The Site implement the following preventative measures relating to fire:
 - Implementation and maintenance of Site security measures prevents arson and vandalism.
 - There is a no smoking policy on Site.
 - Maintenance and Fire Watches on plant and equipment, including checking for hot exhausts and accumulation of dust, debris, grease, and oil.
- 4.10. Waste storage and handling is controlled to minimise its environmental impact,.
- 4.11. A high standard of housekeeping will minimise the risk of fire spreading across Site and its potential impact on the environment..

Cross Contamination

4.12. Staff will implement the requirements of the waste storage and handling procedures to ensure the correct storage of waste.

Flooding

4.13. Staff will implement the requirements of the flood management procedure and will identify and relocate any plant, equipment or waste that could contaminate floodwater.

Failure of Utilities

4.14. There are no preventative measures applicable for the failure of utilities.

Unauthorised Entry

- 4.15. Appropriate actions are taken in the event of unauthorised entry.
- 4.16. Security measures are maintained.







