9 Risk Assessment

9.1 Fire Hazards

9.1.1 Risk of Fire Outbreak

The proposed activity will consist of the handling of relatively inflammable materials such as fuels and bituminous compounds. If not properly managed, the process may pose severe fire hazards and it is therefore a prerequisite that the activities are carried out safely. In case of fire tremendous quantities of smoke will be produced and even toxic gases.

In case not managed properly human lives can be at risk and flames may reach $600^\circ\text{C}$ to $1200^\circ\text{C}$. Also buildings and the plant will be destroyed. Hence a contingency plan needs to be developed to minimise the adverse effect in case of fire.

9.1.2 Precautions and Contingency Plan

The contingency plan will consists of the followings:

- A proper fire alarm system covering the plant as well as offices and storage areas
- Fire fighting system will be put in place including all its amenities
- Installation of foam extinguishers at several locations
- Training to personnel in case of fire outbreak
- Regular maintenance of the electrical system
- Provision of safety circuit breakers in case of overload
- Fixing of appropriate emergency instructions
- Contact number of fire stations will be displayed at various locations
9.2 Spillage

Bitumen or diesel spillage can be harmful to the employees and can also cause environmental damage. Spills can pollute the groundwater, surface water and can cause harm to the persons working on the plant.

9.2.1 Risk of Bitumen and Diesel Spillage

Some of the risks where spillage can occur are as follows:

- Overfilling of storage tanks
- Leakages in the transmission system
- Corrosion of the storage tanks

9.2.2 Precautions and Contingency Plan

- Storage tanks will be made of galvanised metal sheets to minimise the risk of corrosion
- Bundwalls will be constructed around the storage tanks
- Materials such as rocksand can be used to contain the spills material to prevent spreading
- Place absorbent material on spills materials
- Clean spills right away
- Personal to wear safety kit to handle spills material
- Training of employees in case of spills
- Check tank level before filling to avoid overfilling
9.3 Cyclonic Conditions

9.3.1 Risk of Cyclones

Any Plant in Mauritius should cater for cyclonic conditions as it might affect the plant and can be a potential risk for the surrounding environment. Recently we have witnessed several flash floods which had several adverse effects. At any point in time Mauritius can witness a cyclone and should be prepare for it. As such this EIA covers also the possible precautions and contingency plan in case of cyclone.

9.3.2 Precautions and Contingency Plan

- The plant and all proposed structure have been designed to withstand a wind speed of 280 km/hr in case of cyclonic conditions
- Storm water drainage will be provided in case of heavy rainfalls
- Establishing Emergency procedures in case of cyclones
- All equipment and machinery will be checked before closing the plant
- Covering of materials
- Checking all storage tanks if sealed properly to prevent water penetration