



PetroSA GTL Refinery – Emergency Response During Fire Water Impairment

Reference:

Revision: 00

Page 1 of 6

Contents

1. CREDIBLE SCENARIO 1 – Hydrocarbon fires at the Road Loading Facility and toxic gas release at Alkylation Unit (North side of the GTL Refinery)
2. CREDIBLE SCENARIO 2 – Hydrocarbon fires at Tank Farm area and flash fire at High Pressure Storage Area (East side of the GTL Refinery)
3. CREDIBLE SCENARIO 3 – Hydrocarbon fires at the Liquid Effluent Control Unit (South side of the GTL Refinery)
4. CREDIBLE SCENARIO 4 – Hydrocarbon fires at Synthol and Liquid Hazardous Waste Disposal site, Solid Waste Disposal site and Catalyst Preparation Unit (West side of the GTL Refinery)

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Effective date:			



EMERGENCY RESPONSE PLAN: EMERGENCY RESPONSE DURING FIRE WATER IMPAIRMENT

Fire at Road Loading Facility (Unit 73) and toxic gas release at HF Alkylation (Unit 27)

– North Side of GTL Refinery

ACTIONS TO BE CARRIED OUT BY SHIFT MANAGER

- Upon activation of the alarm or notification of the emergency – shift manager to summon fire department to investigate the alarm
- Once the alarm is confirmed, shift manager to notify utilities department to manually start the fire water pumps at unit 56 (diesel fire water pump)
- Notify production fire team members, security personnel to respond and security standby personnel to respond

ACTIONS TO BE CARRIED OUT BY UTILITIES DEPARTMENT

- Manually start fire water pump at unit 56 (diesel fire water pump to be operated on idle)
- Open the closes fire hydrant to allow air venting within the fire water lines (minimum of 60 seconds while the pump is on idle mode)
- Valve **F97, F100, F61, F107 and F109** to be opened to allow water circulation to the North part of the plant to make incident management possible.

ACTIONS TO BE CARRIED OUT BY FIRE DEPARTMENT

- Emergency respond as per plant emergency response procedure as there will be available fire water in the area
- Carry out dynamic risk assessment; determine the extent of the problem.
- Confirm with Shift Manager the necessity of activating the JOC
- Remove all sources of heat and ignition
- Liaise with shift manager to confirm that all necessary pumps and valves have been isolated.
- Depending on the magnitude of the emergency, notify Mossel Bay fire and rescue department and Garden Route Fire Department for emergency response



Fire at Tank Farm and High-Pressure Storage (Unit 51) – East side of GTL Refinery

ACTIONS TO BE CARRIED OUT BY SHIFT MANAGER

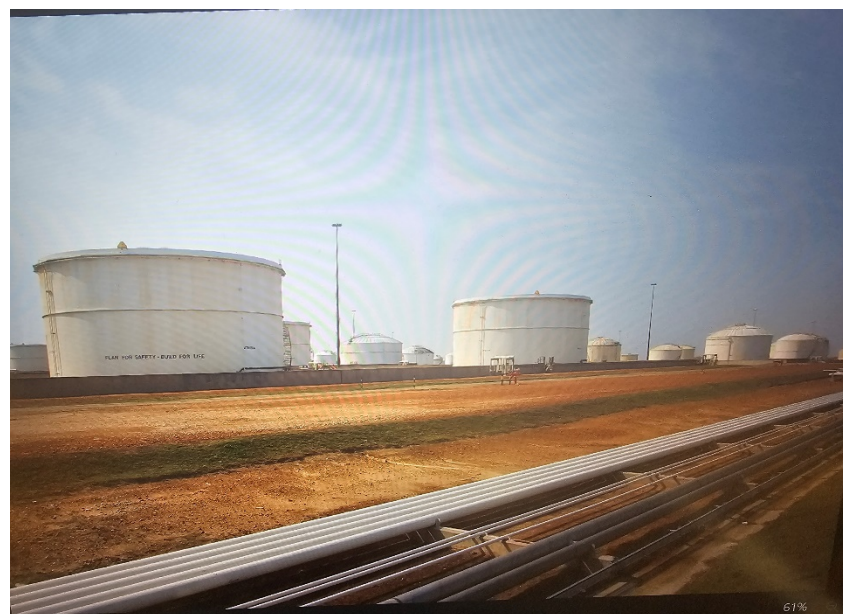
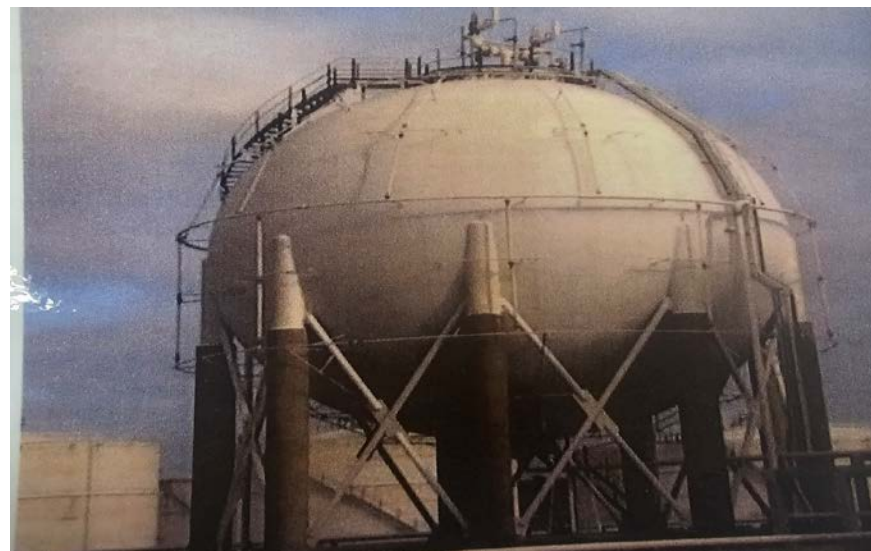
- Upon activation of the alarm or notification of the emergency – shift manager to summon fire department to investigate the alarm
- Once the alarm is confirmed, shift manager to notify utilities department to manually start the fire water pumps at unit 56 (diesel fire water pump)
- Notify production fire team members, security personnel to respond and security standby personnel to respond

ACTIONS TO BE CARRIED OUT BY UTILITIES DEPARTMENT

- Manually start fire water pump at unit 56 (diesel fire water pump to be operated on idle)
- Open the closes fire hydrant to allow air venting within the fire water lines (minimum of 60 seconds while the pump is on idle mode)
- **Emergency valve M209** to be opened to allow water circulation to the East part of the plant to make incident management possible.

ACTIONS TO BE CARRIED OUT BY FIRE DEPARTMENT

- Emergency respond as per plant emergency response procedure as there will be available fire water in the area
- Carry out dynamic risk assessment; determine the extent of the problem.
- Confirm with Shift Manager the necessity of activating the JOC
- Remove all sources of heat and ignition
- Liaise with shift manager to confirm that all necessary pumps and valves have been isolated.
- Depending on the magnitude of the emergency, notify Mossel Bay fire and rescue department and Garden Route Fire Department for emergency response



Fire at Liquid Effluent (Unit 58), Reaction Water Treatment (Unit 18) and LNG Storage (Unit 02)

Unit - South side of GTL Refinery

ACTIONS TO BE CARRIED OUT BY SHIFT MANAGER

- Upon activation of the alarm or notification of the emergency – shift manager to summon fire department to investigate the alarm
- Once the alarm is confirmed, shift manager to notify utilities department to manually start the fire water pumps at unit 56 (diesel fire water pump)
- Notify production fire team members, security personnel to respond and security standby personnel to respond

ACTIONS TO BE CARRIED OUT BY UTILITIES DEPARTMENT

- Manually start fire water pump at unit 56 (diesel fire water pump to be operated on idle)
- Open the closes fire hydrant to allow air venting within the fire water lines (minimum of 60 seconds while the pump is on idle mode)
- There is a full circulation (under gravity feed) on the South elevation of the plant (no fire water isolation on the side of the plant).

ACTIONS TO BE CARRIED OUT BY FIRE DEPARTMENT

- Emergency respond as per plant emergency response procedure as there will be available fire water in the area
- Carry out dynamic risk assessment; determine the extent of the problem.
- Confirm with Shift Manager the necessity of activating the JOC
- Remove all sources of heat and ignition
- Liaise with shift manager to confirm that all necessary pumps and valves have been isolated.
- Depending on the magnitude of the emergency, notify Mossel Bay fire and rescue department and Garden Route Fire Department for emergency response



Fire at Synthol (Unit 14), Catalyst Preparation Unit (Unit 10), Hazardous Waste Ponds Site (Landfill), Flare Area and Unit 50/U99 – West side of GTL Refinery

ACTIONS TO BE CARRIED OUT BY SHIFT MANAGER

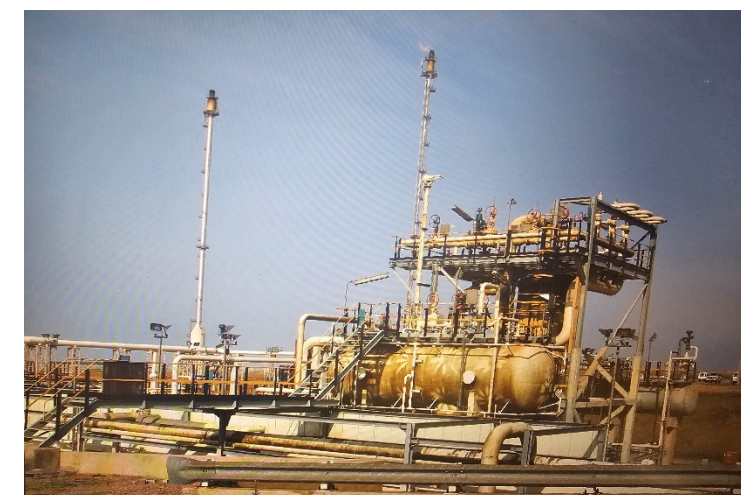
- Upon activation of the alarm or notification of the emergency (shift manager to summon fire department to investigate the alarm)
- Once the alarm is confirmed, shift manager to notify utilities department to manually start the fire water pumps at unit 56 (diesel fire water pump)
- Notify production fire team members, security personnel to respond and security standby personnel to respond

ACTIONS TO BE CARRIED OUT BY UTILITIES DEPARTMENT

- Manually start fire water pump at unit 56 (diesel fire water pump to be operated on idle)
- Open the closes fire hydrant to allow air venting within the fire water lines (minimum of 60 seconds while the pump is on idle mode)
- Valve **E47, F86 and G115** to be opened to allow water circulation to the North part of the plant to make incident management possible.

ACTIONS TO BE CARRIED OUT BY FIRE DEPARTMENT

- Emergency respond as per plant emergency response procedure as there will be available fire water in the area
- Carry out dynamic risk assessment; determine the extent of the problem.
- Confirm with Shift Manager the necessity of activating the JOC
- Remove all sources of heat and ignition
- Liaise with shift manager to confirm that all necessary pumps and valves have been isolated.
- Depending on the magnitude of the emergency, notify Mossel Bay fire and Rescue department and Garden Route Fire Department for emergency response





Hazards available onsite under the current preservation operating mode:

Area	Hazard
Road Loading Facility	ULP and Diesel
Alkylation Unit	Hydrofluoric Acid
Tank Farm	ULP and Diesel
High Pressure Sphere and bullets	LPG components
Liquid Effluent Plant	Oily Water
Flare area	Hydrocarbons residues
LNG Storage Tank	LNG residues
Catalyst Preparation Unit	Pyrophoric Catalyst
Solid Waste Disposal site (Landfill)	Solid Waste Materials and Hazardous Waste Ponds (Liquid Hydrocarbons)

Back-Up Emergency Response Personnel:

- Mossel Bay Fire Department (Mutual Aid Partner)
- Garden Route Fire Department (Mutual Aid Partner)