

**ETHEKWINI MUNICIPALITY
COMMUNITY AND EMERGENCY SERVICES CLUSTER
HEALTH UNIT**

**APPLICATION FOR ISSUING OF A SCHEDULED ACTIVITIES PERMIT
IN TERMS OF THE ETHEKWINI MUNICIPALITY: SCHEDULED ACTIVITIES BYLAW,
2020**

I... Sesakho Magadla hereby make application in terms of **Section 5(1)** of the **Scheduled activities Bylaw of the eThekweni municipality 2020**, for permission to undertake a listed activity and hereby submit the following information in support thereof:

- 1. Section 1 Facility information**
- 2. Section 2 Process, plant and/or production**
 - 2.1 Process description
 - 2.2 Hours of operation
 - 2.3 Graphical process information
- 3. Section 3 Raw materials**
 - 3.1 Raw materials used
 - 3.2 Production rates
 - 3.3 By-Product Produced
- 4. Section 4 Environmental Management**
 - 4.1 Dust Management
 - 4.2 Noise Management
 - 4.3 Waste Management
- 5. Section 5 Occupational Health and Safety**
- 6. Section 6 Major Hazard Installation**
- 7. Section 7 Emergency Response and Contingency Measures**
- 8. Section 8 Effluent Discharge**
- 9. Section 9 Transportation**
- 10. Attachments**

SECTION 1 PERMIT HOLDER DETAILS

1 FACILITY INFORMATION

Facility Name	Central Energy Fund (CEF) SOC (Ltd)
Company Trading Name	CEF
Type of Facility, e.g. Company/Close Corporation/Trust, etc.	Company
Company/Close Corporation/Trust Registration Number (Registration Numbers if Joint Venture)	1976 / 001441 / 30
Physical Address / Description of Site (Where No Street Address)	1 Refinery Road, Prospecton, 4110
Coordinates of Approximate Centre of Operations	Latitude: -29.97416727 Longitude: 30.96538118
Postal Address	P.O. Box 786141 Sandton 2146
Telephone Number (General)	This information will be provided post application as acquisition of Refinery by CEF is currently being finalized
Company Email Address	As per Contact References below
Industry Type/Nature of Activity	Petroleum Manufacturing
Land Use Zoning as per Town Planning Scheme	<i>Attached a copy of the land use zoning certificate</i>
Land Use Rights if outside Town Planning Scheme	N/a
Occupation Certificate	
Name of the Land owner or Landlord	Sesakho Magadla
Responsible Person Name	
Telephone Number	N/a
Cell Phone Number	0836422104
E-mail Address	sesakhom@cefgroup.co.za
Name of SHEQ Official if available	Dian Annalisa John
Telephone Number	N/a
Cell Phone Number	0835347901
E-mail Address	Dian.john@petrosa.co.za
After Hours Contact Details	Will be provided at a later stage

Location and extent of plant: Attach a map or a block plan detailing the location of your premises in relation to the external environment.



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2 SECTION 2 PROCESS, PLANT AND/OR PRODUCTION

2.1 Process description

Please provide a detailed description of the entire production process including the purpose or function of each unit process. Processes Conducted (Attach additional information)

CEF SOC Ltd (CEF), a scheduled 2 State Owned Company has purchased the SAPREF Refinery Precinct Asset from Shell and BP, with certain condition precedents to ensure completion of transfer of the asset by 30 October 2024. The Refinery is currently in temporary park mode with the restart of the Refinery to be potentially evaluated at a later stage. There are currently no changes to process activities fully stipulated in, and this will remain as per operation of the Refinery under SAPREF.

A minimum of units are currently operational, which includes the Tank farm, Utilities and SBM. With the reduced activities on site any sources of noise will be unlikely. Waste generation and air emissions will be limited. Effluent discharge will mainly be rain / stormwater except during the decontamination of the storage tanks.

List all unit processes conducted

Unit Process	Unit Process Function	Batch or Continuous Process NB: Refinery is currently in park mode with all unit processes offline, EXCEPT the Tank Farm and Loading Areas	Emissions released
Crude Distillation Units including Solvents and TCS	Separation of the crude into naphtha, kerosene, light gas oil, heavy gas oil and long residue fractions.	Continuous	Fugitive emissions, stack emissions
Catalytic Reforming Unit – Platformer	A catalytic reformer using a platinum based catalyst to increase the octane number in naphtha stream to produce petrol	Continuous	Fugitive emissions, stack emissions
Isomerisation Unit	Upgrading of low octane gasoline component to high octane product.	Continuous	Fugitive emissions
Thermal Cracking	Processing of short residue and asphalt propane under high temperature conditions.	Continuous	Fugitive emissions, stack emissions

Catalytic Cracking	Use catalyst to convert waxy distillate feed into saleable products, including blending and bituminous products.	Continuous	Fugitive emissions, stack emissions
Hydrofluoric Acid (HF) Alkylation	Hydrofluoric acid is used as catalyst to combine light and volatile hydrocarbons such as propylene and butylene with isobutene to produce alkylate. The alkylate is used in premium quality motor fuel.	Continuous	Fugitive emissions
Hydrosulphurisation / Hydrotreating	Reduces sulphur content of gasoline, kerosene or gasoil fraction hydrocarbons.	Continuous	Fugitive emissions, stack emissions
Sulphur Recovery Processes	Recover sulphur as a product to clean up sulphur rich refinery waste gas streams.	Continuous	Fugitive emissions, stack emissions
Gas recovery & treatment	Propylene splitters and light end recovery.	Continuous	Fugitive emissions, stack emissions
Utilities Boilers	Steam generation and associated facilities	Continuous	Fugitive emissions, stack emissions
Utilities Cooling Water	Standard cooling water systems	Continuous	Fugitive emissions
Lube Units	Formulation of lubricants	Continuous	Fugitive emissions
Crude Oil Storage Tanks	Storage of crude oil before processing	Continuous	Fugitive emissions
Product Storage Tanks	Storage of intermediate and finished products	Continuous	Fugitive emissions
Loading Facility	Loading of finished products (LPG, Bitumen and Solvents)	Batch	Fugitive emissions

Type of Waste transported (Pls tick where applicable)						
Health Care Risk Waste (HCRW)	Domestic	Hazardous	Commercial	Garden	Recyclables	Other (specify)
N/a						

2.2 Hours of operation

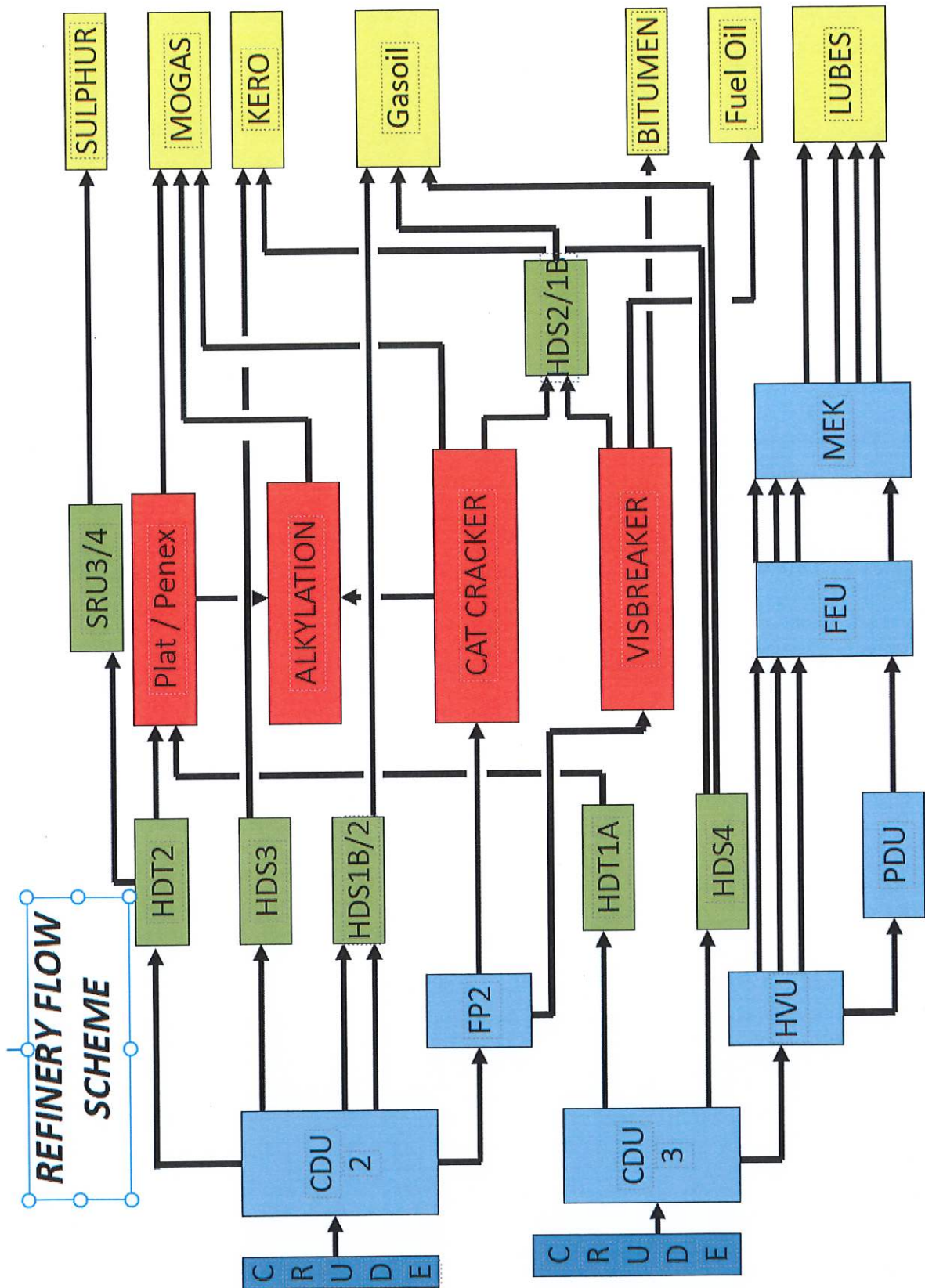
Provide the hours of operation

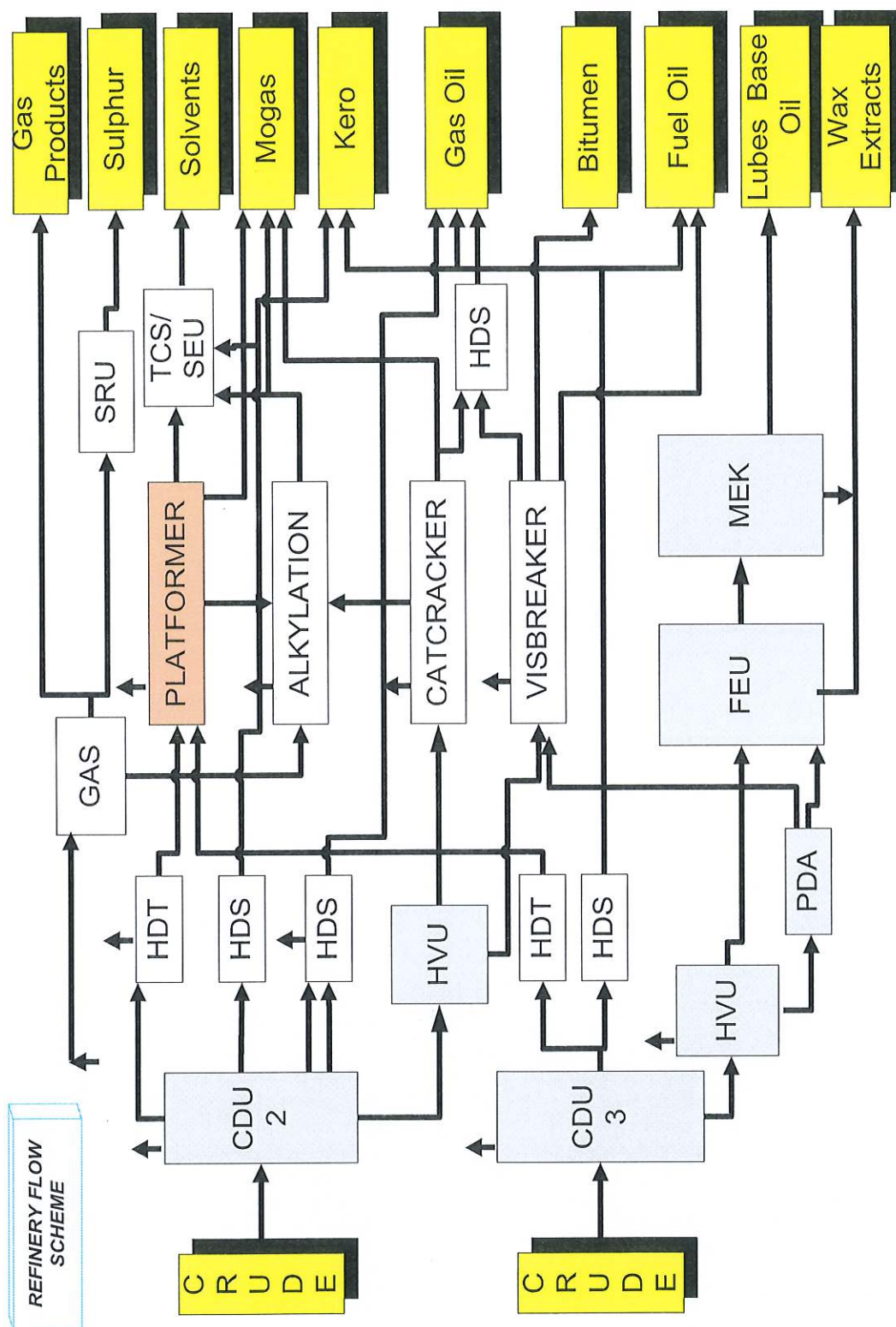
Unit Process	Operating Hours NB: Refinery is currently in park mode with all unit processes offline, EXCEPT the Tank Farm and Loading Areas	Number of Days Operated per Year
Crude Distillation Units including Solvents and TCS	24	365
Catalytic Reforming Unit – Platformer	24	365
Isomerisation Unit	24	365
Thermal Cracking	24	365
Catalytic Cracking	24	365
HF Alkylation	24	365
Hydrosulphurisation / Hydrotreating	24	365
Sulphur Recovery Processes	24	365
Gas recovery & treatment	24	365
Utilities Boilers	24	365
Utilities Cooling Water	24	365
Lube Units	24	365
Crude Oil Storage Tanks	24	365
Product Storage Tanks	24	365
Loading Facility	24	365

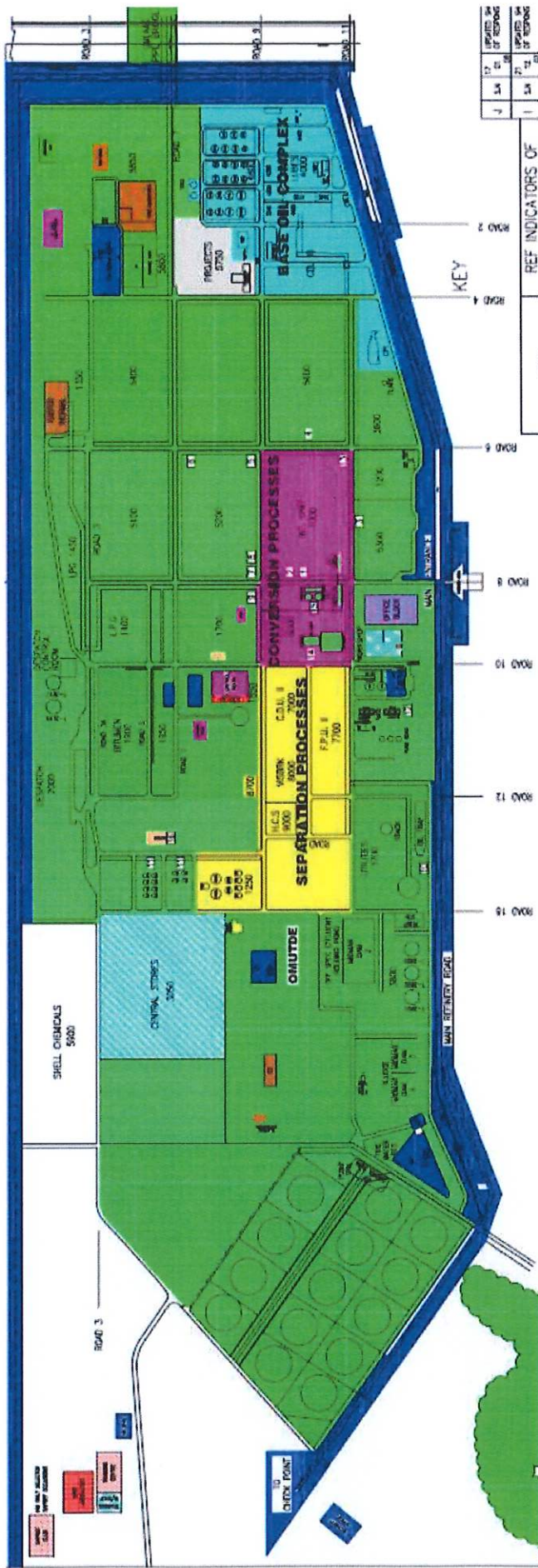
2.3 Graphical process information

2.3.1 Attach the following for the entire operation being undertaken at the site:

- Simplified block diagram with the name of each unit process in a block; showing links between all unit processes or blocks.
- Site layout diagram (plan view and to scale) indicating location of unit processes, plants, buildings, stacks, stockpiles and roads (include true north arrow and scale).
- Attach a color-coded site drainage plan detailing the layout of the premises with the drainage facilities (trade effluent, domestic sewer and storm water, onsite pretreatment facilities, demarcated safety zones and storage areas).







ISLAND VIEW	BASE OIL COMPLEX	OMUTDE	CONVERSION PROCESS	SEPARATION PROCESS	EMERGENCY SERVICES AND PERMITTER	CENTRAL/PERM. STORES	CORE CONTRACTORS	PROJECTS	OFFICE BLOCK	LABORATORY	ELECTRICAL/INST./AM/MECHANICAL W/SHOP	TRAINING CENTRE	TURNOVER FACILITIES	KOBE ROAD SITE
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3 SECTION 3 RAW MATERIALS

3.1 Raw materials used (Attach additional information)

Raw Material Type	Design Consumption Rate (Quantity in Units)	Actual Consumption Rate (Quantity in Units)	Quantity in Units /Period
Crude Oil	180 000	0 (Refinery is currently in park mode)	Barrels/day

3.2 Production rates

Production Name	Design Production Capacity (Quantity in Units)	Actual Production Capacity (Quantity in Units) (Refinery is currently in park mode)	Units (Quantity in Units /Period)
AGO (Gas Oil; Diesel)	9047	0	kT/day
MOG (Petrol)	9900	0	kT/day
MFO (Marine Fuel Oil)	7858	0	kT/day
DPK (Dual Purpose Kerosene)	3508	0	kT/day
SOL (Solvents)	700	0	kT/day
LUB (Lubes)	2000	0	kT/day
BIT (Bitumen Products)	500	0	kT/day

3.3 By-Product Produced

By-Product Name	Maximum Capacity (Quantity)	Production Permitted	Design Production Capacity (Quantity)	Actual Production Capacity (Quantity)	Units (Quantity/Period)
Sulphur	282			0 (Refinery is currently in park mode)	Tons/day

4. SECTION 4 ENVIRONMENTAL MANAGEMENT

4.1 **Dust Management** (Dust Regulations and Section 22 of AQ Bylaw)

4.1.1 Identify all sources of dust and list mitigation measures (Attach copies of recent dust monitoring reports):

- There is potential for dust during Grit blasting activities on tanks and vessels (inhalable only).

4.2 **Noise Management** (Noise Regulations and SANS10103)

Identify all potential noise sources and for each noise source identified describe:

4.2.1 The anticipated impact on surrounding communities:

- During the operation of the Refinery, noise levels may potentially impact the surrounding community during any planned and unplanned flaring and steam venting related to unit upsets and planned maintenance. The impact will also depend on wind direction.
- **Take note that the Refinery is currently in park mode, the flare is offline, and sources of noise will be unlikely.**

4.2.2 The details of the noise control measures implemented/ to be implemented:

- Silencers replacement program was implemented and the North Zone silencer completed.
- Silencer steam vents.

Attach copy of latest noise measurement report completed.

- Refer to the Annual Performance Report of 2023, which includes the assessment of audiometric measurements and is indicative during the operation of the Refinery under SAPREF. The Refinery has been offline since April 2022.
- Additional / new noise measurements will be assessed on restart of the Refinery

4.3 **Waste Management**

4.3.1 Identify all waste streams associated with the operation, Give details below:

- Refer to Waste Register for list of all waste types generated during operation of the refinery. This waste was generated during the operation of the Refinery under SAPREF, some of which will be applicable under the operation of the Refinery under CEF ownership, in terms of domestic and office waste.
- New waste streams will be identified during the evaluation for the restart of the Refinery and or under the ownership and management of CEF.

Type of Waste	Composition / constituents of waste	Volume Generated	Storage	Disposal Method	Frequency of disposal	Approved Waste service Provider	Final Disposal point

4.3.2 Describe system of record keeping for tracking each waste. Are Waste disposal certificates kept to account for all wastes removed by a service provider?

- Historical Waste records that were kept were waste manifests & waste disposal certificates for each skip/drum loads to recovery, recycling and disposal sites during the management of the Refinery under SAPREF.
- This system will continue for the management of and record keeping of waste.

4.3.3 Provide detail of any toxicity testing completed.

- Each hazardous waste stream will be assessed and classified prior to disposal in accordance with the latest National Norms and Standards for the Assessment of Waste for Landfill Disposal promulgated on 23 August 2013.

4.3.4 Details of waste management systems

- Waste specific management procedures will be available and may be supplied on request.

4.3.5 Provide waste minimisation activities

The following waste minimisation activities will be implemented under the management of the Refinery by CEF:

- Recycling - Paper, cardboard, plastic, cans & glass recovered from domestic waste
- Re-use/Recovery - Used printer cartridges returned to supplier for re-use,

The following will be evaluated and or initiated if relevant, once the Refinery site is online:

- Refinery catalysts (FCCU, HDS & PENEX) are recovered and regenerated for re-use, liquid hydrocarbon recovered for re-use onsite or sent to cement kilns, scrap metal sold to recycling company

4.4 Surface and Ground Water Quality monitoring (DWS requirements to be considered)

4.4.1 Describe measures in place for the protection of surface and ground water sources

During the management of the Refinery under SAPREF, potential sources of releases into the soil and groundwater were identified for the various areas and procedural and engineering control were identified and implemented. These included bunding for chemical storage, maintenance programs for valves, flanges, seals and storage tanks. The following must be taken note of:

- Refinery is currently in park mode
- Environmental impact management and or monitoring will continue on the same basis, reviewed and updated accordingly in line with the current activities of the Refinery.
- Maintenance programs as per the current operational processes of the Refinery will be evaluated and implemented accordingly in line with a Risk Based Integrity (RBI) methodology.

There are no surface water sources in the area. The Reunion stormwater canals run adjacent to the property while the Transnet stormwater canals run through the property from the old airport site.

Attach copies water sampling reports that may have been completed.

- All reports will be indicative of sampling and monitoring during the operation of the Refinery under SAPREF.

5. SECTION 5 OCCUPATIONAL HEALTH & SAFETY

5.1 Have all the potential occupational hazards/risks relating to the internal operations been identified. (Y/N) -comments :

- Yes,
- These were identified during the operation of the Refinery under the management of SAPREF.
- Potential occupational hazards/risks will be re-evaluated since the Refinery is under park mode with limited operational activities.

5.2 Provide a list of all such stressor / hazards identified i.e physical, chemical, biological, ergonomical, other:

Type	Stressors
Physical Stressors	Noise Heat, Ionisation radiation
Chemical	Benzene, Toluene, Xylene, Furfural, Hydrogen peroxide, Sodium hydroxide Hydrogen sulphide, Hydrochloric acid, Sulfuric acid, Mek, Sulphur dioxide, Carbon monoxide, Phenols
Biological	Legionella
Ergonomical	Manual handling

5.3 Do you believe that any of the above risks / hazards will be at a level which may pose a health risk to the employees:

- Yes, however since the Refinery is under park mode with limited activities, the risk will be re-evaluated and controls put in place to mitigate against these risks/hazards, if applicable.

5.4 List all methods which will be used to control Health Risks

The following methods were used during the operation of the Refinery under SAPREF and remain applicable under management of CEF:

- Automation of processes where possible,
- Substitution of hazardous substances,
- Safe working procedures,
- Limited amount of period spent in noisy areas,
- Engineering methods
- Personal protective clothing and respiratory protective equipment

5.5 Provide details of envisaged Health and Safety training for employees.

- Training will include the following but not limited to noise awareness, hazardous chemical agents awareness, basic health and safety induction, alky induction, and or any other relevant training that will be required, will be implemented post-acquisition of the Refinery site by CEF SOC (Ltd) (CEF).

5.6 Have staff undergone pre-employment medicals (if so, provide details) (Y/N)

- Yes,
- Since employees are transferring from SAPREF to CEF they will undergo exit medicals. The exit medicals will be used by CEF as the baseline for the for-pre-employment medicals into CEF.
- Pre-employment medicals will thus be available that have assessed fitness to work according to the job specification. These examinations include recording the patient's history (medical and occupational), a clinical examination and such tests as appropriate to the job under consideration, and the age of the candidate. Where there are legal requirements attached to the job (e.g. vehicle drivers) the examination will include an assessment according to these requirements

Attach latest Occupational Health list programme and compliance report. Occupational health risk assessment, occupational exposure monitoring reports and occupational health/ medical report to be reviewed

- An occupational Health program will be compiled post-acquisition of the Refinery by CEF. The Refinery is currently in park mode with limited employees on site.
- Refer to the Annual Performance Report for 2023, for the monitoring results in relation to the Occupational Health Program under SAPREF.

6. SECTION 6 MAJOR HAZARD INSTALLATION

Provide the list of operation (s) that constitute a Major Hazard Installation including mitigation measures that are in place.

- Refinery Process units
- South Tank Farm
- North Tank Farm
- Pipelines from Refinery to Island View Complex

7. SECTION 7 EMERGENCY RESPONSE AND CONTINGENCY MEASURES

The Emergency Response plan takes cognisance of foreseen environmental emergency scenarios, the method of managing such emergencies, the responsible person / team and resources required.

Attach copy of Emergency and response plan if available

- This will be provided, post-acquisition of the Refinery by CEF.

8. SECTION 8 EFFLUENT DISCHARGE

Describe the composition and volume of any effluent discharged or to be discharged to sewer.
(Application for an Effluent discharge permit with EWS is required)

- The site has an existing Trade Effluent Discharge Permit (TEP) under the governance of SAPREF, however transfer application for a TEP as per change of ownership to CEF SOC (Ltd) is currently in process.

Effluent Treatment Plant / Odour Management (If applicable)

9. SECTION 9 TRANSPORTATION

List details of all vehicles used in the transportation of waste:
Washing / base premises / Application for the transportation of waste
__N/A__

I declare that the information provided above is in all respect factually true and correct.

Signature of Applicant:  Date: 30/10/2024

NOTE: This application must be completed in full and signed by the Applicant

