PUBLIC NOTICE – NPA. N. 017

REQUIREMENTS FOR A PERMIT TO CONSTRUCT A PETROLEUM REFINERY/PETROCHEMICAL PLANT IN GHANA

A permit shall be granted in the following sequential stages culminating in the grant of a license to operate the plant.

a. Licence to establish a Refinery
b. Permit to construct a Refinery, and
c. Licence to operate a Refinery.

A LICENCE TO ESTABLISH A REFINERY

The application for a licence to establish a Refinery shall be accompanied by a non-refundable administrative fee of USD$20,000.00 as well as the following documents or information:

1.1 BASIC INFORMATION

a. Company's Name and Address.
b. Street and Mailing Address of the Applicants' principal office,
c. Direct Telephone Number, Fax Number and Email Address, if available,
d. Certificate of Incorporation,
e. Certificate to Commence Business,
f. Regulations 8 to 82; Second Schedule to the Companies Code, 1963 (Act 179)
g. Proof of Title to the land,
h. Feasibility studies of the Refinery project.

1.2 BASIC DESIGN AND CONCEPT ENGINEERING

To facilitate the approval, the following data shall be provided by the applicant:

1.21 Conceptual Study

i. Preliminary Marketing Plan, indicating whether domestic, export, or if both markets are being targeted.
ii. Preliminary product slate, indicating volumes or tonnage and product specifications. The specifications must conform to local specifications if the product is to be sold on the domestic market.

iii. Preliminary crude oil or feedstock slate and assays of the proposed crude and/or feedstock.
iv. Proposed site.
v. Block flow scheme showing process configurations and capacities including utilities, offsite and wastewater treatment facilities.
vi. List of proposed process technologies, and relevant licensors.
vii. Proposed crude oil or feedstock supply and product evacuation scheme.
viii. Proposed safety provisions and preliminary environmental impact statements.
ix. Infrastructural support strategy (community support plan/programme).
x. Preliminary organization plan, including staff training plans, and
xi. Financial Plan.

1.22 Basic Design

i. Refinery design philosophy (hydroskimming, complex refinery, etc.),
ii. Preliminary process flow diagram of the process units,
iii. Crude oil and product monitoring systems and proving procedures,
iv. Preliminary Plot Plan,
v. Proposed project implementing schedule and
vi. Hazard review report of the designed and engineered plant (HAZOP and HAZAN).

1.3 QUALIFICATION FOR DETAILED ENGINEERING

Having fulfilled the above requirements, the Authority may grant the applicant the licence to establish the Refinery as a result of which the applicant may proceed with the detailed Engineering, Procurement and Construction Phase of the Refinery.

B PERMIT TO CONSTRUCT A PETROLEUM REFINERY

The applicant shall submit the following for review to ensure statutory compliance:

a. A Development and Building Permit from the Area\Town Planning Authority approving the construction of the Refinery, a petroleum storage depot, bulk sale and distribution on the proposed site.
b. A fire report signed by the Chief Fire Officer or a Regional Fire Officer evidencing that arrangements proposed for the prevention and fighting of fire coupled with good housekeeping at the site are satisfactory,
c. A Geotechnical Report indicating the general geology of the project area, seismicity of the area, soil profile, groundwater condition, etc.
d. Environmental Impact Assessment culminating in the grant and issue of an Environmental Permit from the Environmental Protection Agency

After satisfying the statutory requirements the applicant shall submit the detailed engineering of the Refinery to the Authority as specified in the following guidelines.

2.1 ENGINEERING DESIGN AND PROCUREMENT

The detailed engineering and equipment specifications shall conform to acceptable National/International Standards listed in **Appendix 1** or their equivalents, so as to guarantee the safety and operability of the plant and equipment.

The following documents shall be submitted to the Authority to ensure compliance:

i. Process Flow Diagram, Detailed Piping and Instrumentation Diagram (P&ID) of the process units, utilities and off sites,
ii. Final process technology selection and licensors,
iii. Detailed Material balances,
iv. List of equipment,
v. Equipment test procedures,
vi. Approved building plans,
vii. Quality control program of the designers,
viii. Final Project implementation schedule,
ix. Detailed Post Construction Environmental Impact Assessment,
x. Detailed crude oil (feedstock) supply and product meter proving procedure and evacuation schemes and
xi. Electrical single line diagrams.

The Authority's Engineers shall participate in the project monitoring/construction and supervision, including all project review meetings. The Authority's Engineers shall liaise with the project consultant to monitor the progress of work during the constructional phase of the project. Additionally, the project proponent shall provide logistical support to the Authority for project monitoring.

2.2 CONSTRUCTION PERMIT FEE FOR REFINERY

The Refinery construction permit fee is based on the production capacity of the Refinery as detailed in **Table 1.0** below:

Production Capacity	**Less than 1,000 MT/day**	**1,000-5,000 MT/day**	**Greater than 5,000MT/day**
Fees (USD)	**30,000.00**	**75,000**	**100,000.00**

Table 1.0

C LICENCE TO OPERATE

Following the completion of mechanical erection, the Authority's Engineers will carry out on-the-spot physical inspection of the plant to ascertain conformity with the approved design. Upon the receipt of a satisfactory report, the Authority will grant approval for commissioning of the plant and subsequently issue a license to operate the Refinery.

The company shall pay an annual fee comprising a fixed fee and a capacity charge based on the production capacity of the Refinery as detailed in the **Table 2.0** below:

Production Capacity	**Less than 1,000MT/day**	**1,000-5,000 MT/day**	**Greater than 5,000MT/day**
Fees (USD)	**50,000/yr + capacity charge o (500/1,000bpsd)/yr**	**150,000/yr + capacity charge of (500/1,000bpsd)/yr**	**300,000/yr + capacity charge of (500/1,000bpsd)/yr**

Table 2.0

APPENDIX 1
REFERENCE CODES
STANDARDS AND SPECIFICAITONS

The design parameters shall among others generally follow the specifications codes outlined in the current editions of:

- Refining Safety Code Part 3 of the Institute of Petroleum Model Code of Safe Practice.-
- API Standard 2510 Design and Construction of LP Gas Installation at Marine and Pipeline Terminals, Natural Gas Processing Plants, Refineries, Petrochemical Plants and Tank Farm.
- API Recommended Practices 520 and 521 for pressure relieving and depressurizing systems.
- National Fire Protection Association (NFPA) Standards No. 59A.
- Liquefied Petroleum Gas Association Code of Practice.
- Electrical Safety Code: Part 1 of the Institute of Petroleum Model Code of Safe Practice
- American National Standard Institute (ANSI) B31-3-Pressure Piping of Chemical Plant and Petroleum Refining Piping.
- American Society of Mechanical Engineers – ASME – Boiler Pressure Vessel Code, (Section 1).
- American Society of Mechanical Engineers (ASME) Mechanical Standards Class “B” Heat Exchangers Section 7.
- API 510 Pressure Vessel inspection code – Maintenance, inspection, rating, repair and alteration.
- API RP 550 Manual on installation of Refinery instruments and control systems.
- API Standard 650 Welded steel tanks for oil storage
- National Electrical Manufacturers Association (NEMA)
- Tubular Exchanger Manufacturers Association (TEMA) Standards for shell and tube exchangers.