

NATURAL RESOURCES CONSERVATION AUTHORITY

PETROLEUM STORAGE FACILITIES

DRAFT GUIDELINES FOR PROJECT PROPONENTS

1. INTRODUCTION

This document should be used in conjunction with the “Guideline for Project Proponents for the Permit and Licence System”. Under Section 9 of the Natural Resources Conservation Authority (NRCA) Act, 1991, and the Natural Resources Conservation (Permits and Licences) Regulations, 1996, industrial projects involving petroleum production, refinery, storage and production require a Permit.

For the purposes of this Regulation the NRCA has defined a petroleum product as follows:

Petroleum product – a single product or mixture of at least 70% Hydrocarbons, refined from crude oil, with or without additives, that is used, or could be used, as a fuel, lubricant, or power transmitter. Without restricting the foregoing, such products include gasoline, diesel fuel, aviation fuel, kerosene, naphtha, lubricating oil, fuel oil, engine oil (including used oil), **propane and butane gases (LPG)**.

2. REQUIREMENTS

The following summarises the requirements of the NRCA for the installation and operation of Petroleum Storage Facilities:

- i) All petroleum storage tanks shall be equipped with some form of **secondary containment** to ensure that all leaks are effectively contained.
- ii) All Underground Storage Tanks (USTs) shall have a **leak detection system** to ensure that no leak goes undetected.
- iii) All USTs shall be equipped with a **line leak detection system** to ensure that there is no further pumping of product once a leak has developed in the pipeline.
- iv) All storage tanks shall have properly functioning **overflow protection devices**.

- v) **Spill protection** shall be in place at all facilities to ensure that there is no spillage to the environment during the transfer of product.
- vi) All USTs shall have **corrosion protection**.
- vii) All Aboveground Storage Tanks (ASTs) shall have a bund constructed to contain at least 120 % of the maximum volume of product being stored in the tank.
- viii) Structural integrity (**pressure**) tests shall be conducted on all storage tanks and pipelines as follows:
 - a) at installation,
 - b) six (6) months after commencement of operation, and
 - c) annually thereafter.

A **Precision Test** shall be conducted on all tanks and pipelines once every five (5) years.

- ix) Monitoring activities involving **leak detection** and **structural integrity tests** shall be undertaken and reports submitted to the NRCA, with copies to the Water Resources Authority (WRA) and the Environmental Health Unit of the Ministry of Health as follows:
 - a) Half yearly during the first year of operation, and
 - b) Annually after the first year of operation
- x) All petroleum storage installations shall have appropriate fire defence systems which have been inspected and approved by the Fire Department, before any product is received in any tank.

3. GENERAL RECOMMENDATION

Corrective measures shall be undertaken immediately once a leak or spill is detected and the NRCA informed within twenty-four (24) hours of the incident.