

DEPARTMENT OF THE ENVIRONMENT (DOE)

ENVIRONMENTAL GUIDELINES FOR
SERVICE STATIONS

These Guidelines are for Operational Standards which are provided for environmentally acceptable functioning of the service station. Operators are contractually bound to manage their service stations according to these standards.

1. *VEHICLE FUELING:*

- a. Restrict spillage on driveway during filling and confine to appropriately designed and well maintained sumps where present.
- b. Mop small spills (less than 1 liter) from surfaced driveways immediately to prevent contamination of stormwater runoff. Use dry sand or sawdust to soak up spill. Do not use water as this will spread the fuel or oil.

2. *VEHICLE REPAIR:*

- a. Use appropriate panel beating equipment and methods to limit noise disturbance and strictly limit to daytime hours.
- b. Control use of substance used for parts washing, including detergents, and dispose of through an oil interceptor and sand trap into the local sewer.
- c. Use only non-toxic and non-corrosive products for cleaning.
- d. Use and stock only "ozone friendly" propellants.
- e. Prevent spillage of toxic or corrosive substances used in vehicle servicing.
- f. Discarded parts and scrap material should be stored in an appropriate location out of eyesight until removal.
- g. Restrict unnecessary running of engines to prevent high levels of harmful gaseous emissions.

3. *CAR WASHING:*

- a. Use only non-toxic and non-corrosive detergents.
- b. Foaming agents that are not biodegradable should not be used.
- c. Collect waste water and ensure that it passes through oil separation and sand traps.

4. DRAINAGE SYSTEMS:

- a. Clean out (monthly) all sand traps, gulleys and drainage channels to ensure free flow of water effluent.
- b. Arrange for petroleum/oil interceptors to be cleaned every six months (and after a spill).

5. TANK MAINTENANCE AND FUEL DELIVERY:

- a. Solvents used for cleaning and the resultant effluent must not be allowed to enter storm water drains, or septic tanks, or any natural water bodies (eg. streams, wetlands, ponds, lakes). Effluent must pass through an oil interceptor and sand trap into the local sewer.
- b. If possible avoid delivery and filling of tanks at peak traffic periods.
- c. Avoid spillage (connecting/disconnecting) or overfilling during delivery by proper training staff.

6. VEHICLE CONTROL:

- a. Do not allow vehicles to idle unnecessarily (limit emissions and save fuel).
- b. Ensure that directional markings on driveway are clear (prevent congestion).

7. WASTE STORAGE, INTERCEPTION AND REMOVAL:

- a. Waste originating from the workshop and driveway should be sorted (i.e. scrap metal, discarded parts, tires, empty metal/plastic/paper container, air filters, oil filters, batteries and other corrosive substances, different oils, oily rags and sawdust) and recycled where possible.
- b. All waste oil should be regarded as harmful. Approved storage for waste oil should be provided and arrangements made for disposal.
- c. Burning of waste should not be allowed. only organic waste may be buried if necessary.
- d. Pit sludge should be cleaned out and stored for collection and proper disposal. Do not dispose of into sewers, water courses, septic tanks, or stormwater drains.
- e. Prevent foreign substances from entering septic tank systems, eg. large volume of detergents.
- f. Erect notices in toilets serviced by a septic tank to warn the public not to deposit foreign substance or objects.

8. *LITTER CONTROL:*

- a. Provide adequate waste bins of appropriate design.
- b. Provide litter bags for customers to keep in their vehicles. Collect car litter bags regularly.
- c. Provide containers for items which can be recycled.

9. *ENERGY MANAGEMENT:*

- a. Lighting is a high energy user and should be managed by replacing lamps to match those originally fitted and with time switches on those circuits not required during certain periods.
- b. Heating and cooling equipment should be properly maintained and vents, grilles and filters kept clean through a regular housekeeping programme.

10. *PRODUCT STORAGE:*

- a. Inflammable substances should be stored separately, away from electrical

installations etc.

- b. Keep toxic substances out of reach of children.

11. HOUSEKEEPING / BUILDING MAINTENANCE:

- a. Ensure that gardens are well maintained. Use indigenous plants as they require minimal care.
- b. Use water sparingly in maintaining gardens.
- c. Keep temporary signage to a minimum and remove when no longer applicable.
- d. Ensure that service station lightning does not disturb surrounding residents (eg. direction, glare, flashing).
- e. Institute an appropriate building and site maintenance programme.
- f. Ensure that fire fighting equipment is adequate and regularly serviced.
- g. Avoid using CFC's and Halogen propellants in fire extinguishers.
- h. Maintain a strict odor control policy (eg. fuel vapors, sewage vents, toilets).
- i. Regularly inspect paving at filling points for impermeability.
- j. Strictly control noise from equipment, workshop, and car wash.

12. EQUIPMENT MAINTENANCE:

- a. Ensure optimum functioning of workshop machinery such as compressor and car wash to limit noise levels and vibration.
- b. Prevent leakage of pumps, valves, taps and other equipment by regular inspection and repair.

13. SERVICE STATION STAFF:

- a. Staff should be informed as part of an ongoing education programme so that they can

understand the reasons behind various procedures. This is the responsibility of the operator.

14. STOCK CONTROL:

- a. Ensure that leakages are detected and treated as early as possible.

ENVIRONMENTAL CONTINGENCY PROCEDURES
FOR
PRODUCT SPILLS, FIRES & TANK LEAKS

Any environmental problem arising from unforeseen incidents must be reported immediately to the Department of the Environment (DOE) and contingency procedures implemented by the operator in conjunction with the relevant person or body.

PRODUCT SPILLS:

SPILLAGE OF OIL/FUELS/CHEMICALS ON PAVING (LARGE):

- a. Prevent any of these substances from entering stormwater systems or septic tanks, or from contaminating any natural water system.
- b. Mop up and contain spill immediately with Drizit, sandbags, sand or soil.
- c. If any of the spills enters the stormwater system the flow must be intercepted before it can contaminate other environments.
- d. If natural water systems are contaminated use straw bales, sorbent booms and sandbag dams for containment and absorption.

SPILLAGE OF OIL/FUEL/CHEMICALS ON SOIL (LARGE):

- a. Prevent spread of the substance by using sandbags, sand or soil, sorbent booms or planking to divert flow.
- b. Prevent any of these substances from contaminating groundwater (it may be necessary to remove contaminated oil).
- c. Rescue any endangered plants immediately.
- d. Plough soil for aeration and apply fertilizer/suitable neutralizing chemicals if viable (not detergents).
- e. Water soil to bring oil to surface - "mop up" with sorbent material such as Drizit.

FIRE

- a. Prevent spread of fire to surrounding buildings or vegetation.
- b. Limit use of toxic substances for fire fighting.

- c. Prevent effluent from fire fighting (foam, water, fuel, chemicals) from entering surface/groundwater, stormwater systems and septic tanks.

TANK AND PIPELINE LEAKS

- a. Operator should inform the Department of the Environment (DOE) immediately of any leaks.
- b. Find the source of the leaks and stop any further leakage.
- c. If soil has been contaminated it must be rehabilitated as follows: plough soil for aeration, apply fertilizer, keep moist. For very permeable soils, venting and bio treatments including nutrient and bacteria are required.
- d. Prevent fuel from contaminating groundwater.

GUIDELINES FOR THE SITING AND PLACEMENT OF FUEL STORAGE TANKS FOR A SERVICE STATION

I. SURFACE TANKS:

- (1) When above ground these tanks should be:
 - (a) A minimum of thirty (30) feet away from any building within the compound.
 - (b) A minimum of twenty (20) feet away from the property line.
 - (c) A minimum of seventy-five (75) feet away from the nearest residence or any other potential source of ignition.
- (2) The tanks should be placed on a concrete pavement above ground (the pavement should be steel floated).
- (3) A catchment area around the tank will need to be constructed. The capacity of the catchment area should be 110% of the total capacity of the tank(s). This area should be secured/fenced to prevent easy access to unauthorized persons.
- (4) The fuel pump, when extended to its maximum length, should not be within five (5) feet from the edge of any waterway.
- (5) Adequate disposal facility must be provided for the disposal of the containers from the lubricants.
- (6) Each tank must have two vents of not less than twelve feet (12') high.
- (7) Space for the parking of the oil tankers, should be adequately provided.
- (8) Proper equipments and gears for the workers must be provided (OSHA Standards).
- (9) Inventory of fuels should be kept and proper mixing facilities should be made available.
- (10) No smoking signs and other safety measures must be undertaken.

II. UNDERGROUND TANKS

- (1) When underground, these tanks should be:
 - a) Covered with a minimum of three (3) feet of earth and six (6) inch thick concrete slab.

- b) A minimum of fifteen (15) feet away from any building within the compound.
 - c) A minimum of ten (10) feet away from the property line.
 - d) A minimum of thirty (30) feet away from the nearest residence.
- (2) Proper construction of the pit that will house the tanks.
 - (3) A catchment area connected to a pump, in case of a spill, should be installed. The capacity of the catchment area should be 110% of the capacity of the tank(s).
 - (4) Each tank must have two vents no less than twelve (12) feet high.
 - (5) Adequate disposal facility must be provided for the disposal of the containers from the lubricants.
 - (6) Space for the parking of the oil tankers, should be adequately provided.
 - (7) Proper equipment and gears for the workers must be provided (OSHA Standards).
 - (8) Inventory of fuels should be kept and proper mixing facilities should be made available.
 - (9) The area should be properly ventilated, should have fire extinguishers and proper lighting.
 - (10) No smoking signs and other safety measures must be undertaken.