



REPUBLIC OF TRINIDAD AND TOBAGO The Ministry of Energy and Energy Affairs

Guidance Document for Completing the Application Form for Storage Approval of Refined Petroleum Products at 'End-User' Facilities

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1. Scope

The document provides guidance for completing the application form for storage approval of Refined Petroleum Products at 'End-User' facilities (*Doc No.: MEEA-HSEM-A001*). It does not outline the requirements for design and construction of the storage system. The references listed herein may be consulted for more information on the same.

2. Applicability

All applications for the approval of petroleum by-products storage systems made after May 30, 2012 must be done so by use of the application form (*Doc No.: MEEA-HSEM-A001*).

This application form should only be used if the storage capacity of a singular petroleum by-product exceeds a cumulative capacity of 100 Imperial Gallons on the premises where it is to be stored. Such products include; diesel, kerosene, gasoline, jet A1 fuel, used oil, and lubricants/ lube oils. The storage tanks may be aboveground or underground.

The application form **should not be used for:**

- terminals and other energy based facilities for which the petroleum by-products systems are considered part of the entire facility and for which the facility is approved by the Ministry of Energy and Energy Affairs.
- marine storage systems.
- the storage of Liquefied Petroleum Gas (LPG) systems.
- road transportation systems for petroleum by-products.
- Non-hydrocarbon liquids, e.g. liquid oxygen, hydrogen.
- storage systems at Service Stations.
- the re-approval of petroleum by-products storage systems.

3. General Rules on Completing the Application Form

The following are general rules for completing the application form:

- 1) The content of the form must not be altered in any way.
- 2) Information must ONLY be entered in the check boxes and the gray shaded areas.
- 3) Avoid the use of correction fluid on the completed application form.
- 4) Supplemental information that can aid in the processing of your application may be attached.

- 5) The application form must be completed as thoroughly as possible. Incomplete applications will not be processed. Following completion, the signed form (and attachments) must be forwarded in hard copy by the owner of the facility, the installation contractor or anyone appointed on behalf of the former to the following address:

Chief Mechanical Engineer
 Ministry of Energy and Energy Affairs
 Maska Building
 South Trunk Road
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- 6) Installations that are not approved within one (1) year of the application date will require resubmission of an application form.
- 7) There are no fees associated with processing of the application.
- 8) Forwarding an application to the Ministry does not guarantee that approval will be granted for the storage system.

4. Step by Step Procedure for Completion of the Application Form

The following tabulated information gives a step by step guide to completing the application. The letter-number references (e.g. A1, B2, etc.) outlined herein is consistent with the application form.

Ref.	Guidance notes
Cover Page	
	Insert the applicant's file reference number, if any.
	Insert the applicant's title, name and position. <i>Applicant refers to the person filling out the application form. The applicant must ensure that the information is true and correct and that he/she is authorised by the installation owner/s to act on his/their behalf. Incorrect information will render the application being deemed incomplete.</i>
	Insert the date of the application form.
Section A – Installation Owner Information	
A1/A2/ A3	Specify the (i) name, (ii) mailing address and, (iii) contact information of the company which owns or to which the storage system is leased.
Section B – Installer Information	
B1/B2/ B3	Specify the (i) name, (ii) mailing and, (iii) contact information of the company that will be installing the storage system. <i>All personnel involved in the installation of LPG systems must be suitably trained and qualified. The MEEA may request copies of the training and qualification records, if so desired.</i>
Section C – Storage Information	
C1	Specify the total volume of products to be stored on the premises. <i>Approval is only required if the cumulative capacity of a singular product exceeds 100 Imperial Gallons.</i>
C2	Specify the number of tanks to be installed. <i>The application form may be used for a maximum of six (6) tanks. For more than three (3) tanks used the supplement form.</i>
C3	Specify the physical address of the installation. <i>If the address is the same as in section A, tick the (same as in A2) box and do not re-enter the information</i>
C4	Choose the type of facility where the storage system is to be installed. <i>If your facility is not listed, enter it in the blank box provided.</i>
C5a	Give a brief description of the purpose or use of the storage system at the intended location. <i>Intricate details of the process utilizing the product to be stored are not necessary.</i>
C5b	If the storage system is used to fuel a fleet of vehicles, give a brief description of the make/type of vehicle and the number of the make/type in the fleet, for example, forklifts – 3, road tanker wagons – 5, trucks – 2, generator – 1, etc.
C6	Specify if this application to the Ministry is the first for the storage system. <i>Note that this will not affect approval of the storage system. If no, provide the date of the application, if possible.</i>
C7	Specify where the product/s to be stored will be obtained from. <i>That is:</i> <ul style="list-style-type: none"> • Internally (i.e. within the company) • Offshore Vessel • Petroleum Distributor • Refinery

Ref.	Guidance notes
	<ul style="list-style-type: none"> • Service Station • Other <p>If "Other" or Petroleum Distributor is the source of the product to be stored, give details of the same in the box provided.</p>
C8	Specify the approximate volume of fuel to be utilised per month, if applicable. <i>This section is only applicable to fuels, i.e. diesel, kerosene, jet A1 and gasolene storages. The volume may be specified in any of the listed units of measure.</i>
C9	Specify the approximate volume of fuel to be purchased per month, if applicable. <i>This section is only applicable to fuels, i.e. diesel, kerosene, jet A1 and gasolene storages. The volume may be specified in any of the listed units of measure.</i>
C10	Specify if the tanks are in the same location, where more than one tank is to be installed. <i>Tanks are considered to be in the same location, if they are adjacent, installed in the same bund or interconnected.</i>
C11	Specify if the tanks are interconnected, where more than one tank is to be installed. <i>Tanks are considered to be interconnected if there is fluid (gas or liquid) communication between them.</i>
C12	Specify the tentative date by which installation is expected to be completed, if applicable. <i>An exact date is not necessary. For tanks that are already installed, specify the date the storage system was installed.</i>
C13	Specify if any of the listed products are on the same premises and are not part of the application.
C14	Specify the type of buildings on the same premises. <i>If the type of building is not listed, choose 'Other' and specify the same in the box provided. More than one box may be ticked. Examples of Public Assemblage are schools, churches, shopping malls, etc.</i>
C15	Specify if the area City/Regional/ Borough Corporation has been advised of the installation.
C16	Specify if your company is registered and approved by the Ministry of Energy and Energy Affairs for the purchasing of diesel fuel at the subsidised price. <i>If yes, specify the registration number or date of approval.</i>
Section D – Piping Information	
D1	Specify if the hydrocarbon piping is: <ul style="list-style-type: none"> • Underground or aboveground. • Indoor or outdoor
D2	Specify the material of construction of underground and aboveground sections of piping.
D3	Specify the type of piping joints. <i>Where the type of joint is not listed, specify the same.</i>
D4	Specify the minimum depth of underground piping, if applicable.
D5	Specify the type of corrosion protection for underground piping, if applicable.
D6	Specify if the underground piping is double-walled. <i>If yes, specify the material of construction of the outer wall.</i>
Section E – Tanks Information	
E1	Specify the type of product to be stored in each tank. <i>The following product may be applied for approval. A product that is not listed may be specified in the "Other" box provided.</i> <ul style="list-style-type: none"> • Bunker Fuel • Chemical • Diesel • Jet A1 • Kerosene • Oilfield Wastes • Premium Gasolene • Produced Water • Regular Gasolene • Super Gasolene • Used Oil • Water (if part of the storage system and used for fire fighting)
E2	Specify the operational status of each tank. <i>This includes one of the following for the tank:</i> <ul style="list-style-type: none"> • Currently in use. • Installed but not in use. • Partly in use

Ref.	Guidance notes
	<ul style="list-style-type: none"> Temporarily out of use. To be installed. <p>Storage systems that are in use will be given a sixty (60) days' time period following a Ministry's inspection to have them approved. Systems that do not meet the minimal requirements of the Ministry may require relocation or retrofit works before approval can be granted.</p>
E3	Specify the location of each tank. <i>More than one box may be ticked. If the intended location is not listed, specify the other type in the box provided.</i>
E4	Specify if each tank is: <ul style="list-style-type: none"> a) Fixed or mobile. A tank is considered mobile if its storage location can vary. b) Permanent or temporary. A storage system is considered temporary if approval is sought for a maximum period of one (1) year. A temporary storage system may not necessarily be exempted from all the necessary requirements for a permanent system. c) New or used. Used tanks must be hydrotested before being allowed to return to useful service. Hydrotesting refers to filling the tank with water (or fluid with a specific gravity greater than the product to be stored), allowing it to stand for a minimum period of twenty four hours and observing for any leaks. d) Shop-built or field-erected e) Rigid or flexible. A tank is considered flexible if the shape varies.
E5	Choose the means by which product will flow from each tank. <i>The following may be chosen.</i> <ul style="list-style-type: none"> Gravity Pump Pump and gravity. <i>If the means of product flow is not listed, choose "Other" and specify in the box provided.</i>
E6	Choose the material of construction for each tank foundation/ supports. <i>If the material of construction is not listed, specify the other type in the box provided.</i>
E7	Choose the type of terrain in the vicinity of each tank. <i>This may be:</i> <ul style="list-style-type: none"> Flat Hilly Sloping Undulating
E8	Specify the type of auxiliary equipment to be installed with the tanks. <i>All equipment must be designed for the intended service. Manufacturer specifications sheets for each piece of equipment installed in the system may be requested following review of the application. If the intended auxiliary equipment is not listed, specify the other type in the box provided.</i>
E9	Specify if the tank will be used to supply fuel to marine vessels.
E10	Specify (by ticking) if the listed items are within 50 feet of any of the tanks. <i>Where yes, the item of interest and actual set back distance must be illustrated on a plot plan of the storage system to be attached to the application.</i>
E11	Specify if any of the tanks will be readily available to the public. <i>Tanks that are readily accessible will require protection against public tampering and manipulation of valves.</i>
E12	Specify the water capacity of each tank. <i>This refers to the maximum volume of water the tank is capable of storing.</i>
E13	Choose the shape of each tank. <i>The following may be specified:</i> <ul style="list-style-type: none"> Upright cylindrical Horizontal cylindrical Rectangular Irregular Spherical Other
E14	Specify the dimensions of each tank. <i>The size of each parameter must be entered in the 'Value' box. Rows are provided to list either:</i> <ul style="list-style-type: none"> diameter for a spherical tank; diameter X length for a horizontal cylindrical tank; diameter X height for a upright cylindrical tank, or length X width X height for a rectangular tank. <i>The dimensions are not necessary for irregularly shaped tanks.</i>
E15	Specify the minimum shell (wall) thickness of each tank.

Ref.	Guidance notes
E16	Specify the material of construction of each tank.
E17	Specify if each tank is atmospheric. <i>A tank is atmospheric if the liquid in the tank is held at atmospheric pressure, i.e. the internal and external pressure of the tank is the same. If the tank is not atmospheric, specify the working pressure.</i>
E18	Specify the approximate Date of Manufacture of each tank.
E19	Specify the Manufacturer's Serial Number of each tank, if available.
E20	Specify the primary means by which liquid level and volume will be determined in each tank. <i>The following may be specified:</i> <ul style="list-style-type: none"> • Gauging rod • Level indicator • Level sensor • None • Other <i>If other, specify the method in the box provided.</i>
E21	Specify the manufacture code/standard for each tank. <i>The following may be specified:</i> <ul style="list-style-type: none"> • API – American Petroleum Institute • ASME – American Society of Mechanical Engineers • AS – Australian Standard • DOT – Department of Transportation • UL – Underwriters Laboratory • Other <i>Where the code/standard is listed as other, specify the same in the box provided. Such manufacture codes/standards must be agreed by the Ministry for construction of the tanks.</i>
E22	Specify the diameter of the fill piping of each tank.
E23	Specify the diameter of the discharge piping of each tank.
E24	Specify the diameter of the vent piping of each tank.
E25a	Specify the type of secondary containment provided for each tank.
E25b	If a double-walled tank is to be installed, specify the material of construction of the outer shell.
E25c	If a double walled tank is to be installed, choose the primary method of leak detection for the interstitial space (space between the inner and outer shell). <i>The following may be specified:</i> <ul style="list-style-type: none"> • Bleed valve • Gauge rod • Inspection hatch • Sensor • Sight glass • None • Other <i>If other, specify the method in the box provided.</i>
E25d	If there is more than one tank and the tanks are banded, specify if all the tanks are located in the same bund. <i>If yes, specify the dimensions of the bund.</i>
E25e	If the answer is 'no' to E25d, specify the dimensions of the bund for each tank.
E26	Specify the material of construction of the bund wall.
E27	Specify the minimum shell to shell spacing between the tanks, if applicable.
Section F – Attachments	
Specify if the following are attached to the application. <i>The submission of the documents marked with asterisks is not necessary at the application stage, but will be required before final approval can be granted for the storage system.</i>	
F1	Plot Plan of the storage system and surrounding infrastructure <i>This must show all the items specified in Section E10. Applications that are not accompanied with a Plot Plan drawing will be rendered incomplete until the submission of the same.</i>

Ref.	Guidance notes
F2	Drawing of the tanks and piping. <i>The drawing must be isometric or orthographic projections showing all connections and physical details of the tank. All dimensions must be displayed as well. If all tanks are the same, only the submission of one drawing is necessary. Applications that are not accompanied with a drawing of the tank and piping will be rendered incomplete until the submission of the same.</i>
F3	*Underground Piping Pressure Test Certificate.
F4	*Standard Operating Procedures
F5	*Emergency Response Plan
F6	*Fire Service Division report/ approval
F7	Certificate of Environmental Clearance. <i>Storages that have a cumulative capacity in excess of 500 barrels (17,500 IG) will require a certificate of environmental clearance (CEC) from the Environmental Management Agency (EMA).</i>
F8	Manufacturer's Specification Sheets for Auxiliary Equipment
F9	*City/Borough/Regional Corporation letter of approval.
F10	Proof of Deed of Ownership of the land earmarked for the construction/ installation of the storage system or Letter of Permission from the Owner of the land to construct/install the storage system.
F11	Any other attachments may be specified in the blank boxes provided.
Section G – Other Information	
Insert any information that may be useful in the processing of the application.	

5. Frequently Asked Questions (FAQs)

The following is a list of FAQs and the corresponding response of the MEEA.

- **Is there any fee associated with the processing of my application?**
No, there are no fees associated with the processing of the application form.
- **What will render my storage system not being approved?**
Any of the following may render the storage system not being approved:
 - a) *The system not meeting the minimum requirements of the Petroleum Act, Chapter 62:01, NFPA 30 – Flammable and Combustible Liquids and other applicable internationally recognized standards.*
 - b) *The system not being approved by the other regulatory agencies having legal jurisdiction.*
 - c) *The Operator/ Owner not being approved for the purchase of diesel fuel at the subsidized price by the MEEA.*
 - d) *Failure of the Operator/ Owner of the facility to implement the requirements of the MEEA.*
 - e) *The Operator's inability to reasonably justify the purpose/use of the storage system.*
- **How long will the approval process take?**
Following submission of an application, the MEEA will conduct a site inspection within two (2) weeks of receipt of the same. If the intended site and the design of the tank are acceptable, clearance will be given to commence construction within one (1) week of the site assessment. Following completion of construction, the MEEA must be notified to conduct a close-out inspection. If all the necessary requirements are met, a certificate of approval will be granted within one (1) week of the inspection.
- **Can I apply for approval of my storage system if it is already in operation?**
Yes. Storage systems that were never approved will be allowed ninety (90) days to correct all deficiencies identified by the Ministry of Energy and Energy Affairs. Failure to comply will result in having to remove the storage system from useful service.
- **How long is approval valid for?**
Approval is valid for a maximum period of five (5) after which re-approval for the storage system must be sought. The approval period for temporary storage systems may vary, but in no case exceed one (1) year.

6. List of Acronyms:

- API – American Petroleum Institute
- AS – Australian Standard
- ASME – American Society of Mechanical Engineers
- CEC – Certificate of Environmental Clearance

- DOT – Department of Transportation
- EMA – Environmental Management Agency
- ft. – feet
- gal – gallon
- in. – inches
- kPa – kilo Pascal (pressure rating)
- LPG – Liquefied Petroleum Gas
- MEEA – Ministry of Energy and Energy Affairs
- m. – metre
- mm – millimeter
- NA – Not Applicable
- NFPA – National Fire Protection Association
- OSHA – Occupational Safety and Health Agency
- psi – pound per square inch (pressure rating)
- scf – standard cubic feet (volume)
- TCPD – Town and Country Planning Division
- UL – Underwriters Laboratory

7. References:

- ASME B31.3, *Process Piping*, 2004 edition.
- ASME *Boiler and Pressure Vessel Code*, 2004 edition
- API 650 – *Welded Tanks for Oil Storage*, 11th Edition, June 2007
- NFPA 30, *Flammable and Combustible Liquids Code*, 2008 edition.
- NFPA 70, *National Electrical Code*, 2008 edition.
- *Ministry of Energy and Energy Affairs Aboveground Hydrocarbons Storage Tanks (Horizontal) Installation Inspection Checklist (Doc No.: MEEA-HSEM-C002), Rev. 0 - June 2011.*

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