

Project Summary

Developer: Zach Gonsalves

Company: John Fernandes Limited

Activity: Construction of a Hazardous Materials Storage Facility

Project Location: Plantation Fairfield, Mahaicony, East Coast Demerara

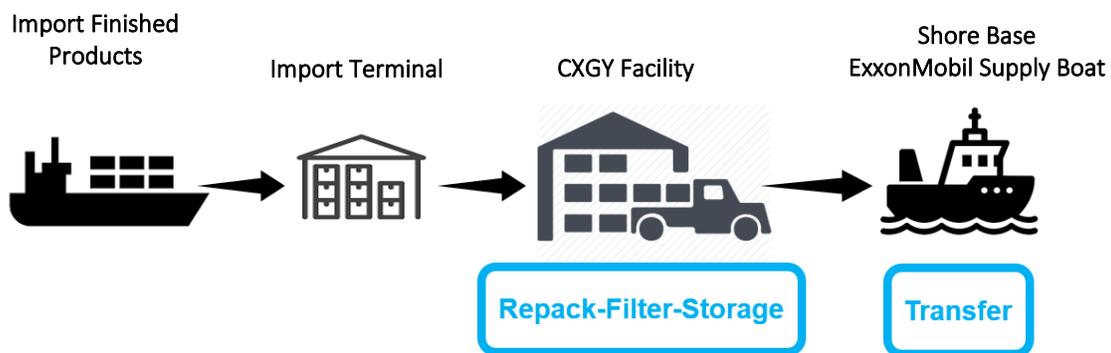


Facility Overview:

This is strictly a storage and container transfer facility used for the following activities.:

- Storage of products and equipment
- Repackaging of product into tanks
- Filtering product as we repackage
- Office space for our warehouse team
- Quality control of the filtering operation
- Transportation of inventory to supply vessel

Imported finished products from the US are brought into Georgetown, Guyana. After receiving custom's clearance, the imported products will be transferred to the proposed site where most of the products are filtered as they are transferred to into internationally approved transportation containers through a closed-loop system to eliminate vapor emissions. Oilfield materials are stored in these containers at the proposed site until needed offshore.

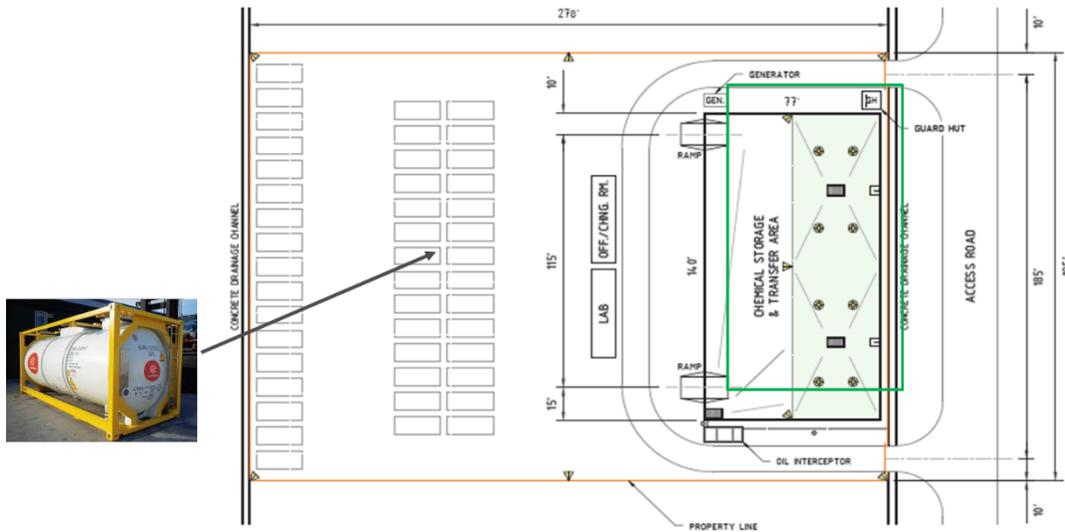


5,000 square meter facility, built to international standards, will support Destiny FPSO, per the following construction specifications overview

- 1,000- square meters concreted and contained area for tank transfers
 - Constructed of reinforced, double mesh, concrete slab 20 centimeters in thickness
 - Partially covered area (shed) to provide protection against the elements
 - Storm water discharged through an oil water separator
 - Spark proof wiring
 - Bonding and grounding grid
- 4,000 square meter crushed rock or pavers over chemical impervious barrier.
- Entire site with containment and controlled storm water run -off to prevent pollution
- Yard lighting
- Security fencing & 24- hour security
- CCTV monitoring of front gate and storage areas
- Office and quality control trailers for personnel

- Firefighting system to support local fire service in the unlikely event of fire.
 - 60,000-liter fire water tanks with AFFF foam and firefighting equipment
 - 4 – 120 lb. fire extinguishers positioned near chemical handling area
- Safety Shower strategically placed around work area
- Spill kits positioned strategically within the chemical handling and general storage area.

The site plot plan is below along with a picture of the largest storage container that will be used on site.



The EPA has also asked for additional information specific to the containers

- Details about the container
- The type of chemicals that would be stored
- Capacity of the container
- The construction of the container, what is it made of?

Company plans to store Asphaltene Inhibitor, Corrosion inhibitor, Biocide, Biocide Filter, Hydrate Inhibitor, Demulsifier, Chlorine Scavenger, Defoamer and Hydrate Inhibitor.

The product will be stored as follows:

- ISO Tanks constructed from 316 stainless steel; quantity per tank: 5,000 gallons.
- Plastic tanks constructed of HDPE; quantity per tank: 275 gallons.
- Steel drum constructed from carbon steel either lined or unlined: quantity per drum – 55 gallon.

Company complies with UN package performance standards to ensure that from a safety and regulatory adherence to laws and regulations. Material compatibility, material specific gravity, vapour pressure, and flash point are key elements which feed into the decision on the kind of container selected and used for transport and storage as well as the fill weight of the material.

All containers purchased will be stencilled or embossed by the container manufacture with the UN package performance standard. An example of a performance package standard for a 10L plastic pail follows:

10L plastic pails. UN specification 3H1/Y1.8/100 The UN specification is explained below. A screw on cap required. Similarly, a 55 gallon closed head steel drum would have UN specifications of 1AX / X1.8 / 300

1	Package Identification:	1 Drums / Pails 2 Barrels 3 Jerricans 4 Boxes 5 Bags 6 Composite Packaging (i.e. Steel/Plastic)
A	Material	A Steel B Aluminum C Wood G Fibre H Plastic
1	Package Type	1 Closed Head 2 Open Head
Y	Signifies Packaging Group for Which the Package was Tested	X Groups I, II and III Y Groups II and III Z Group III
1.8	This number signifies the specific gravity for which the design type was tested.	
100	This is the hydraulic test pressure in kilopascals (kPa).	

1,000 liter plastic containers will be marked with the following UN package performance standard. These are considered composite containers.

8. **Kennzeichnung / Marking**

Die nach der zugelassenen Bauart serienmäßig gefertigten Großpackmittel (IBC) sind wie folgt zu kennzeichnen.
Intermediate Bulk Containers manufactured in series corresponding to the approved design type shall be marked as follows:

IBC SM:

 31HA1 /Y/..../D/BAM 11027-**/4070/*

IBC RM-SM:

 31HA1 /Y/..../D/BAM 11027-**#RM/4070/*

31HA1 indicates that the container is for liquids

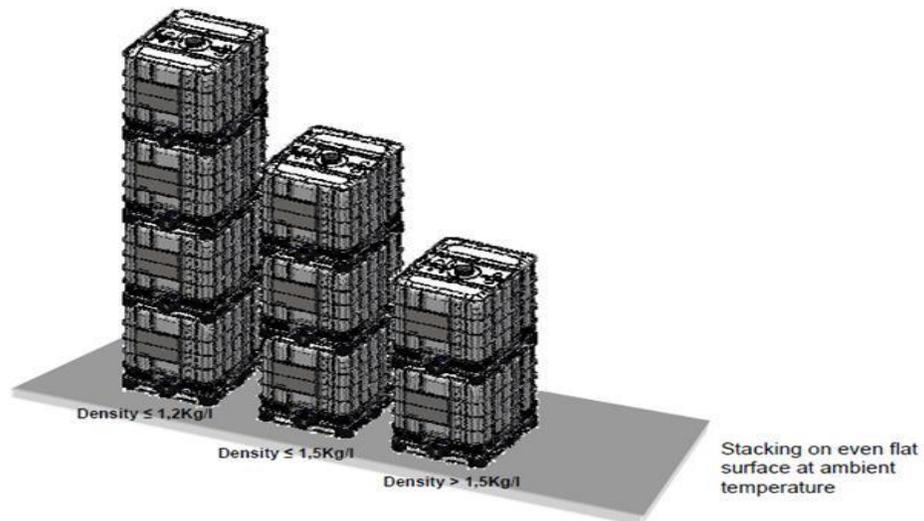
“H” denotes IBC

“A” indicates that the container is composite of HDPE within an aluminium frame on either a wooden or aluminium pallet.

“Y” indicates that the container is suitable for carrying non-hazardous materials and hazardous material assigned packing groups II and III

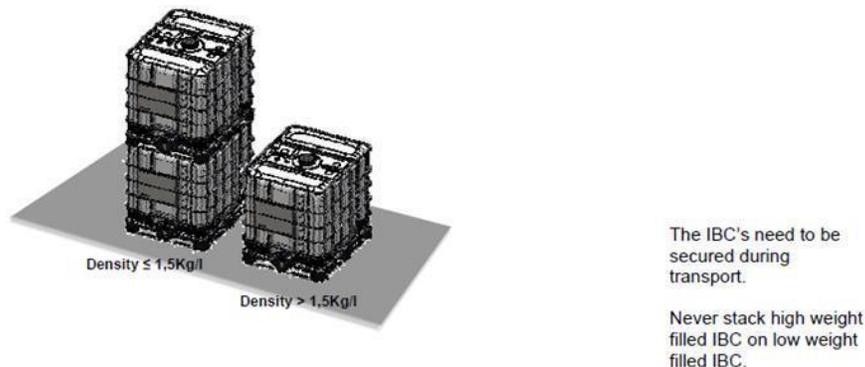
Company uses best practices recommended by the container manufacturer along with corporate guidelines to determine how many containers can be stored in a stock. . The following diagrams show the recommended stack heights based upon the specific gravity of the product. Should local regulations stipulate a lesser stack height then local regulation will take precedence.

Static load:



Stacking height for dynamic loads (loads exposed to motion) should not exceed 2 high and must be secured for transport.

Dynamic load:



Under ideal conditions plastic drums on pallets can be stacked four high. However, other factors impact the decision on drums stack height such as temperature, partially filled drums, exposure to direct sunlight, drums fitted with pressure relieving vents, density of the product. When taking

these safety factors into consideration along with weight of each drum Company limits to drum stacks to 2 to 3 pallets per drum stack. Iso Tanks and offshore tanks will be stacked 2 high.

ISO Tank are considered portable tanks under UN performance packaging standards and are built to meet either T7 or T11 specifications. Company products can ship and store in either T7 or T11 specification iso tanks.

Map showing surrounding land uses.

