

Jurisdictional Boundaries in Midstream: Where is the Line?

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The background of the slide is a monochromatic orange-tinted image of an industrial facility, possibly a refinery or chemical plant, with large storage tanks and distillation columns. A white hexagonal frame is centered over the image, containing the title text.

Introduction & Overview



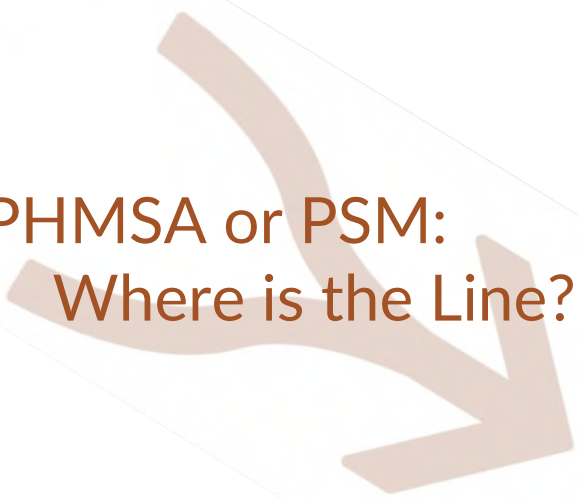
Introduction & Overview

- Midstream Operations are familiar with the applicability of the **Pipeline and Hazardous Materials Safety Administration (PHMSA)** regulation but may not be familiar with when, if ever, the **Process Safety Management (PSM)** regulation applies to their operations
- It is clear that pipelines are covered by **PHMSA** but where is the line between **PHMSA** and **PSM** when the pipeline enters a midstream facility?

Introduction & Overview

Case Study 1 – Walt Terminal

PHMSA or PSM:
Where is the Line?



Case Study 2 – Bevo Terminal

OSHA PSM Applicability
Evaluation Steps

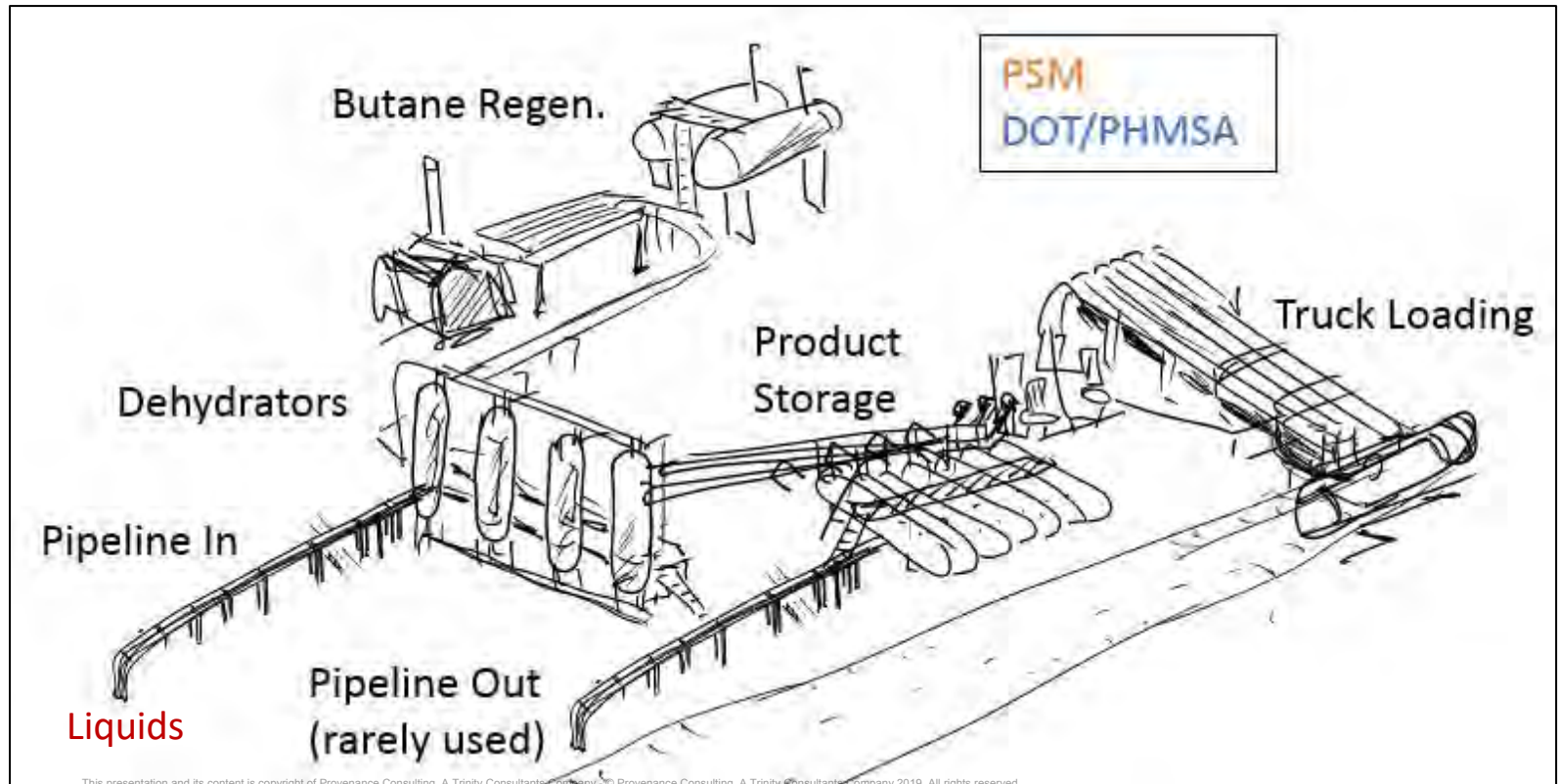


The background is a photograph of an industrial facility, likely a port or refinery, during sunset. The sky is a deep orange, and the water in the foreground reflects the lights from the facility. A large white hexagon is centered over the image, containing the title text. The industrial structures include tall chimneys emitting smoke and various pipes and cranes.

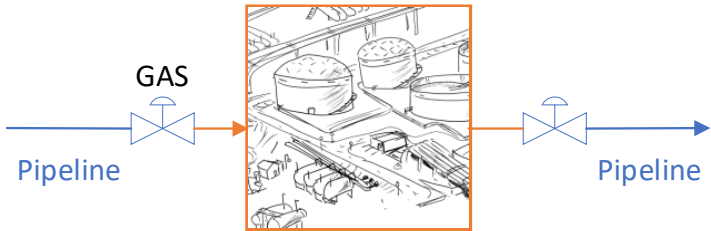
Case Study: Walt Terminal



Case Study 1 – Walt Terminal

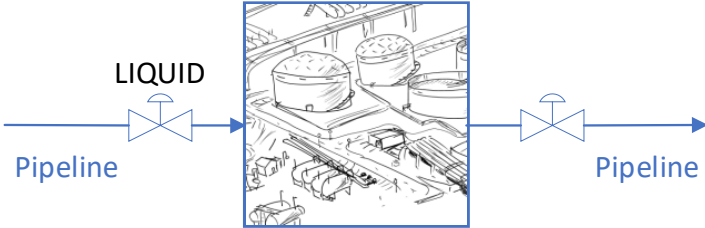


Walt Terminal: PHMSA or PSM?

System	Governing Regulation	Representation
Materials transportation terminal (gas)	PSM (regardless of mode of transportation)	 The diagram shows a gas terminal layout. A blue line labeled 'Pipeline' enters from the left, passes through a valve, and is labeled 'GAS'. This line enters an orange-bordered box containing a detailed sketch of industrial equipment, including storage tanks and piping. An orange line exits the box, passes through another valve, and continues as a blue line labeled 'Pipeline' to the right.

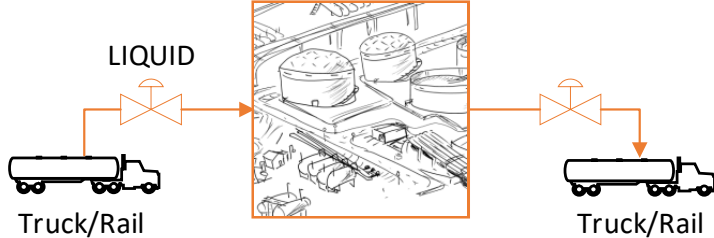
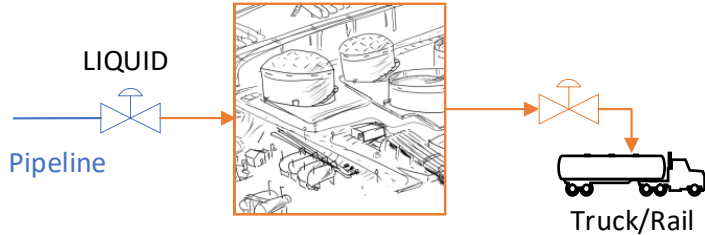
**Note that PHMSA covered systems are represented in blue*

Walt Terminal: PHMSA or PSM?

System	Governing Regulation	Representation
Materials transportation terminal (hazardous liquid) that receives liquid from a pipeline and re-injects for continued transportation via pipeline	PHMSA	

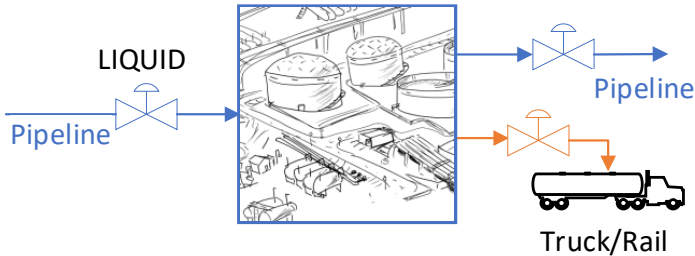
Note that **PHMSA covered systems are represented in blue*

Walt Terminal: PHMSA or PSM?

System	Governing Regulation	Representation
Materials transportation terminal (hazardous liquid) that is <u>exclusively</u> between non-pipeline modes of transportation or between pipeline and non-pipeline	PSM	 <p>LIQUID</p> <p>Truck/Rail</p> <p>Truck/Rail</p>
		 <p>LIQUID</p> <p>Pipeline</p> <p>Truck/Rail</p>

**Note that PHMSA covered systems are represented in blue*

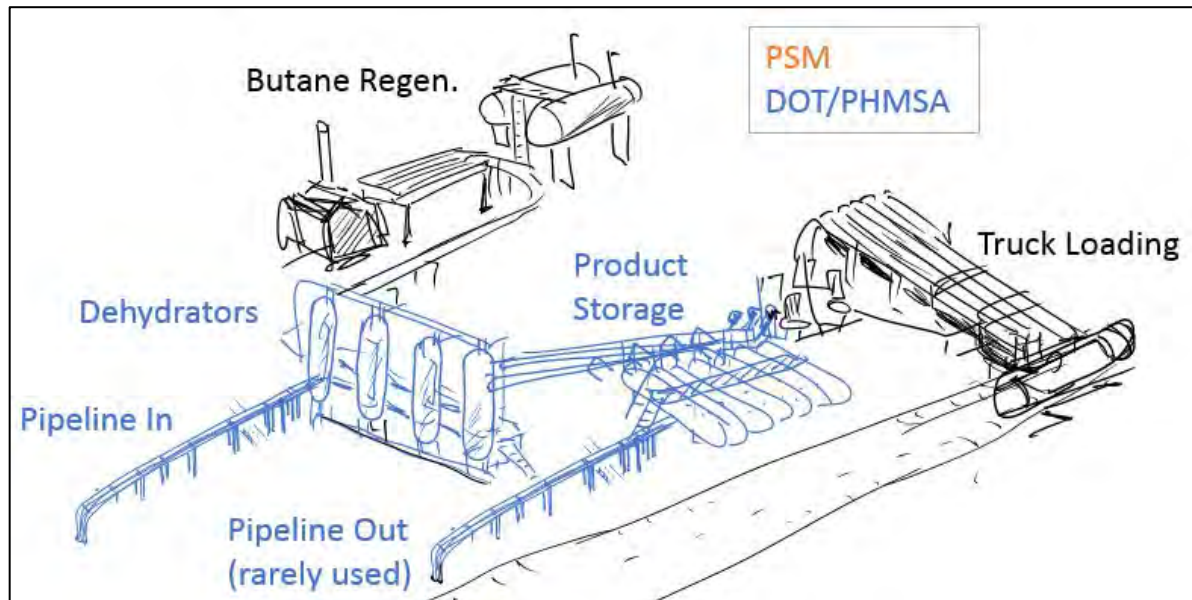
Walt Terminal: PHMSA or PSM?

System	Governing Regulation	Representation
Materials transportation terminal (hazardous liquid) that is not exclusively between non-pipeline/pipeline modes of transportation (i.e. shared use lines are present)	Majority PHMSA	 <p>The diagram illustrates a materials transportation terminal. A blue line labeled 'LIQUID Pipeline' enters a facility containing several large storage tanks. From the facility, the flow splits into two paths: one continues as a blue line labeled 'Pipeline', and the other is an orange line leading to a truck/rail icon labeled 'Truck/Rail'.</p>

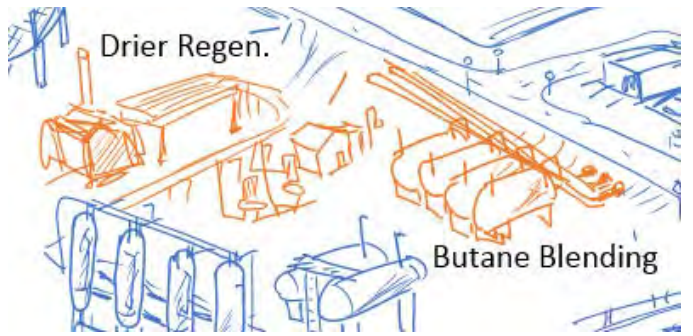
Note that **PHMSA covered systems are represented in blue*

Case Study 1 – Walt Terminal

Because the facility is not exclusively between non-pipeline modes of transportation or between pipeline and non-pipeline, the “shared-use” equipment/lines are covered by PHMSA.

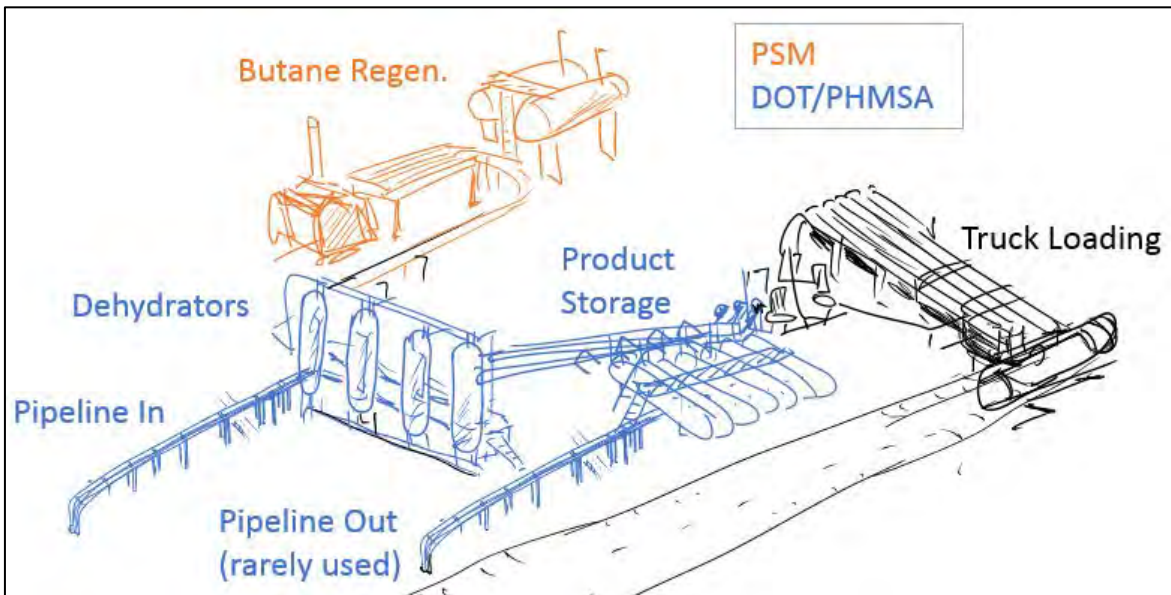


Walt Terminal: PHMSA or PSM?

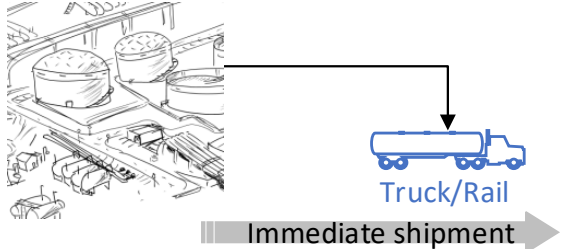
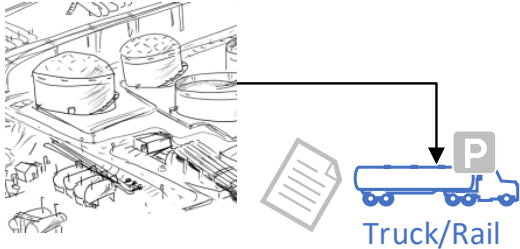
System	Governing Regulation	Representation
Systems that support the material transportation system (e.g. butane regeneration or butane blending)	PSM	 <p>The diagram is a hand-drawn sketch in blue and orange ink. It depicts an industrial facility with several large storage tanks, pipes, and structural elements. In the upper left, a structure is labeled 'Drier Regen.'. In the lower right, a large cylindrical tank is labeled 'Butane Blending'.</p>

Case Study 1 – Walt Terminal

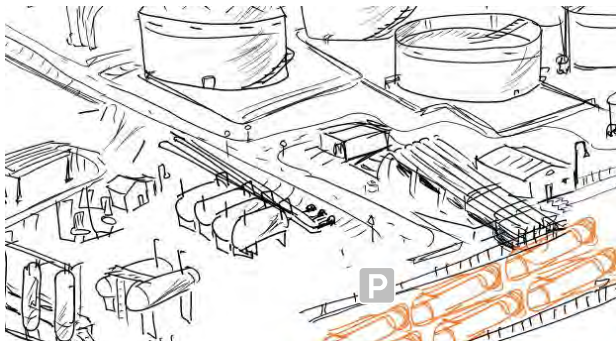
Because the butane used in the regeneration of the dehydrator desiccant is not in transportation, the butane regeneration system is not covered by PHMSA and is therefore under the jurisdiction of PSM



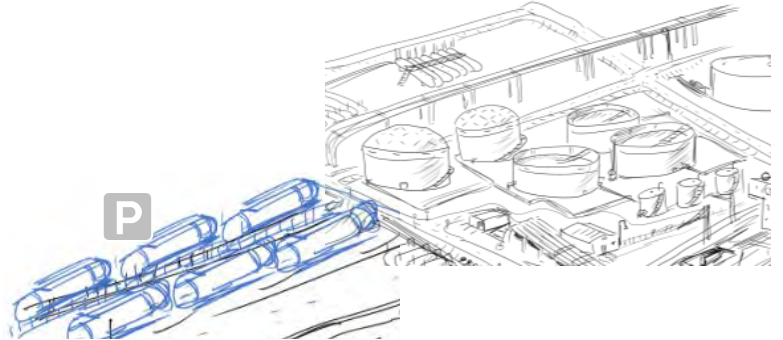
Walt Terminal: PHMSA or PSM?

System	Governing Regulation	Representation
Loading for immediate shipment	DOT	
Loading but the transport vehicle is held on-site and the pre-transportation functions have been completed		

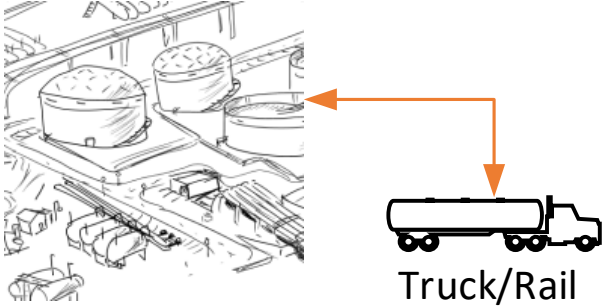
Walt Terminal: PHMSA or PSM?

System	Governing Regulation	Representation
Storage of transport vehicle <u>on premises or private track</u>	PSM	

Walt Terminal: PHMSA or PSM?

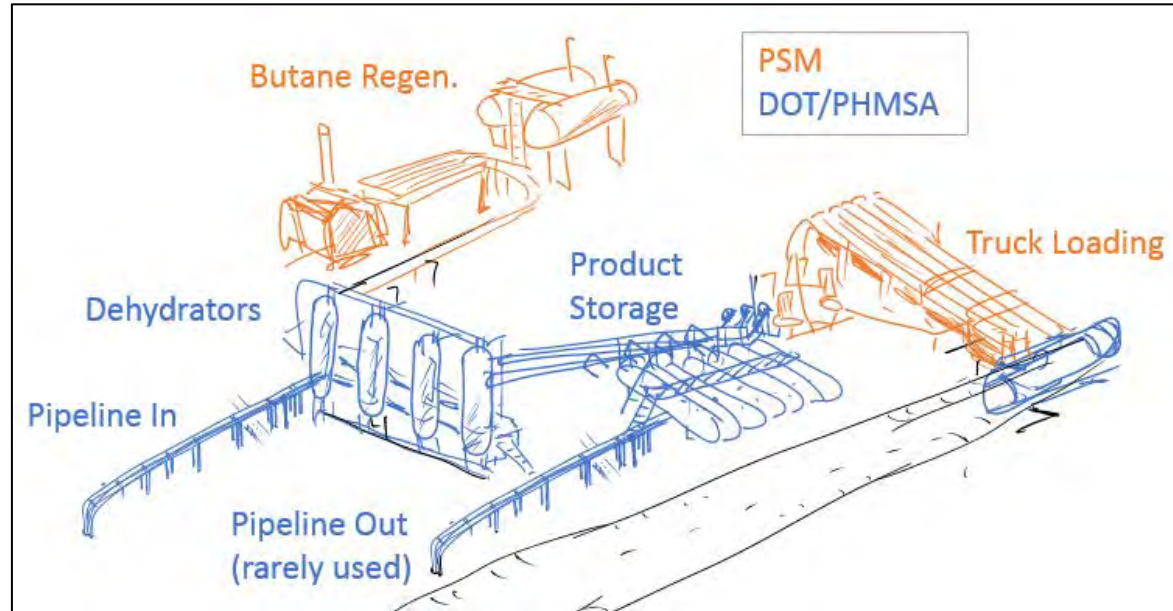
System	Governing Regulation	Representation
Storage of transport vehicle on <u>non-private</u> track	DOT	

Walt Terminal: PHMSA or PSM?

System	Governing Regulation	Representation
Loading/Unloading racks	PSM	 <p>Truck/Rail</p>

Case Study 1 – Walt Terminal

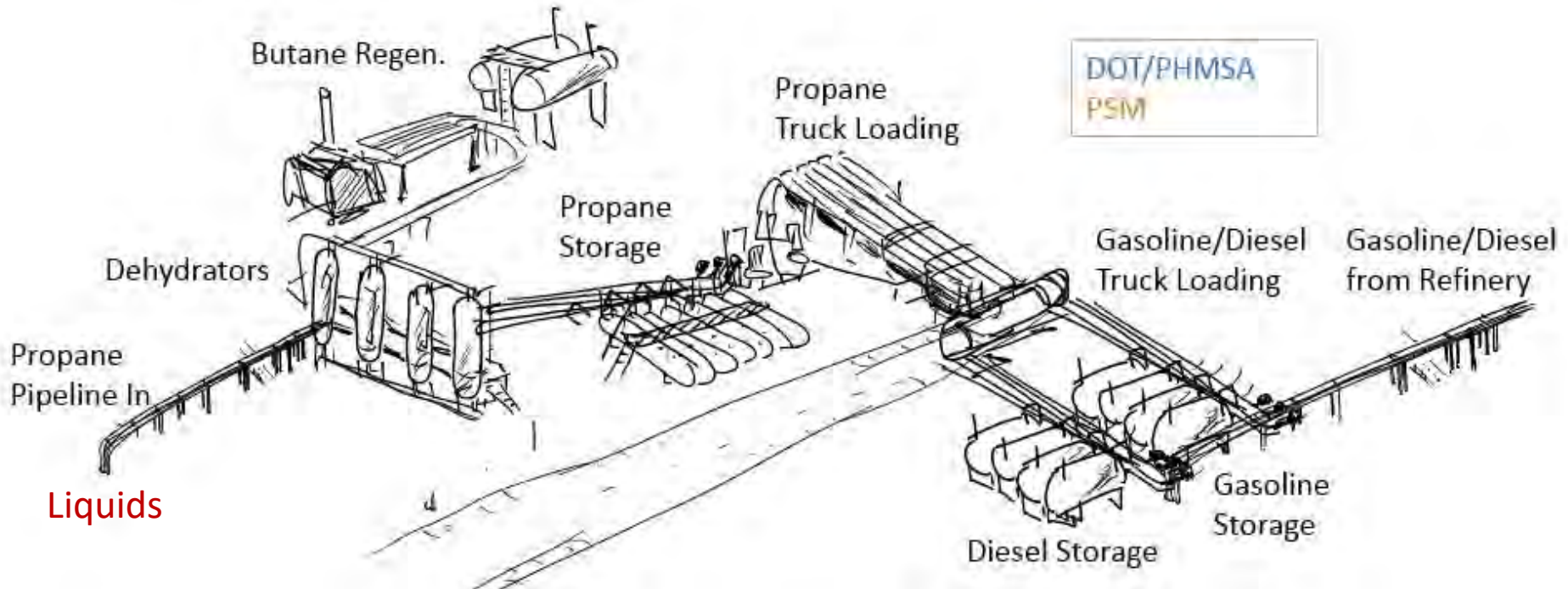
1. The truck loading piping is covered by **PSM**.
2. Assuming the truck is being loaded for immediate shipment and is not stored at the facility, the loading operation and the truck is covered by **DOT**.



The background is a photograph of an industrial facility, likely a refinery or chemical plant, during sunset or sunrise. The sky is a deep orange, and the facility's lights and structures are silhouetted against it. A large, white hexagonal frame is centered over the image. The text "Case Study: Bevo Terminal" is written in white, sans-serif font across the middle of the frame.

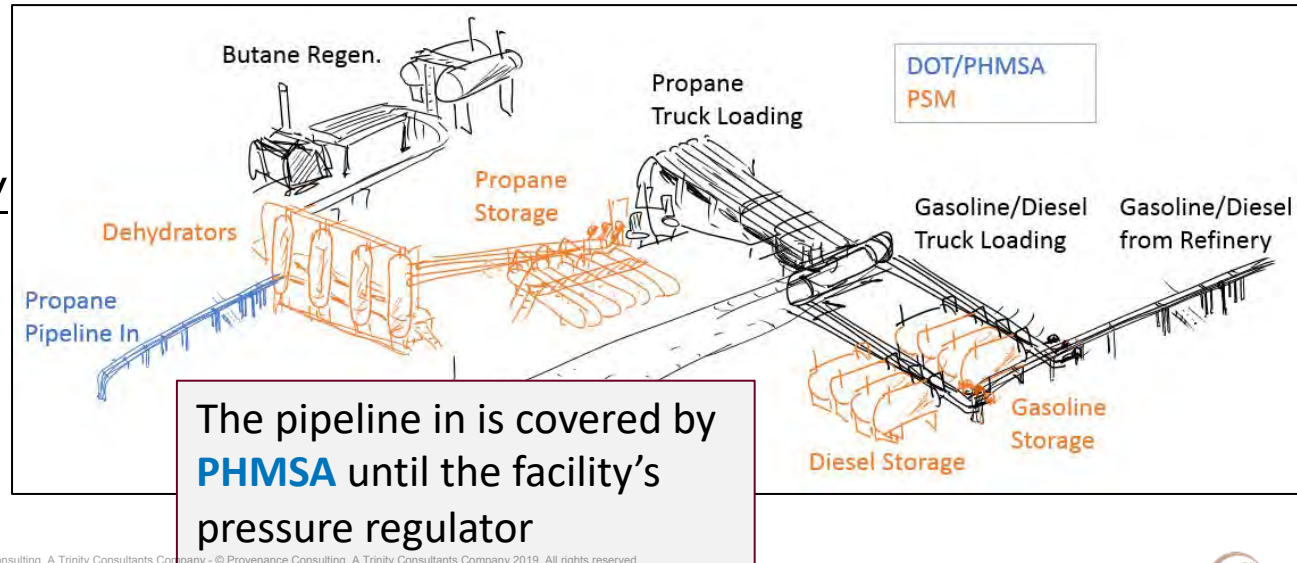
Case Study: Bevo Terminal

Case Study 2 – Bevo Terminal



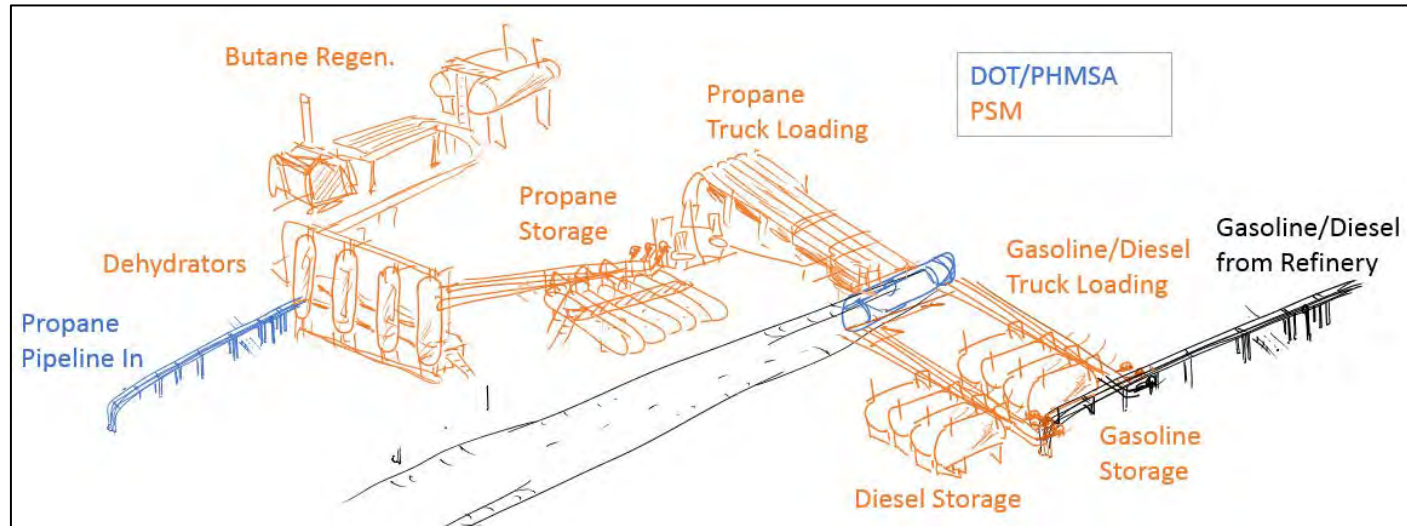
Case Study 2 – Bevo Terminal

1. Because the propane system is exclusively between pipeline and non-pipeline modes of transportation, it is covered by **PSM**
2. Because the gasoline/diesel system is exclusively between non-pipeline modes of transportation, it is covered by **PSM**



Case Study 2 – Bevo Terminal

1. Because the butane used in the regeneration of the dehydrator desiccant is not in transportation, it is under the jurisdiction of **PSM**
2. The truck loading piping is covered by **PSM**
3. Assuming the truck is not stored at the facility, it is covered by **DOT**



Bevo Terminal: OSHA PSM Applicability Steps

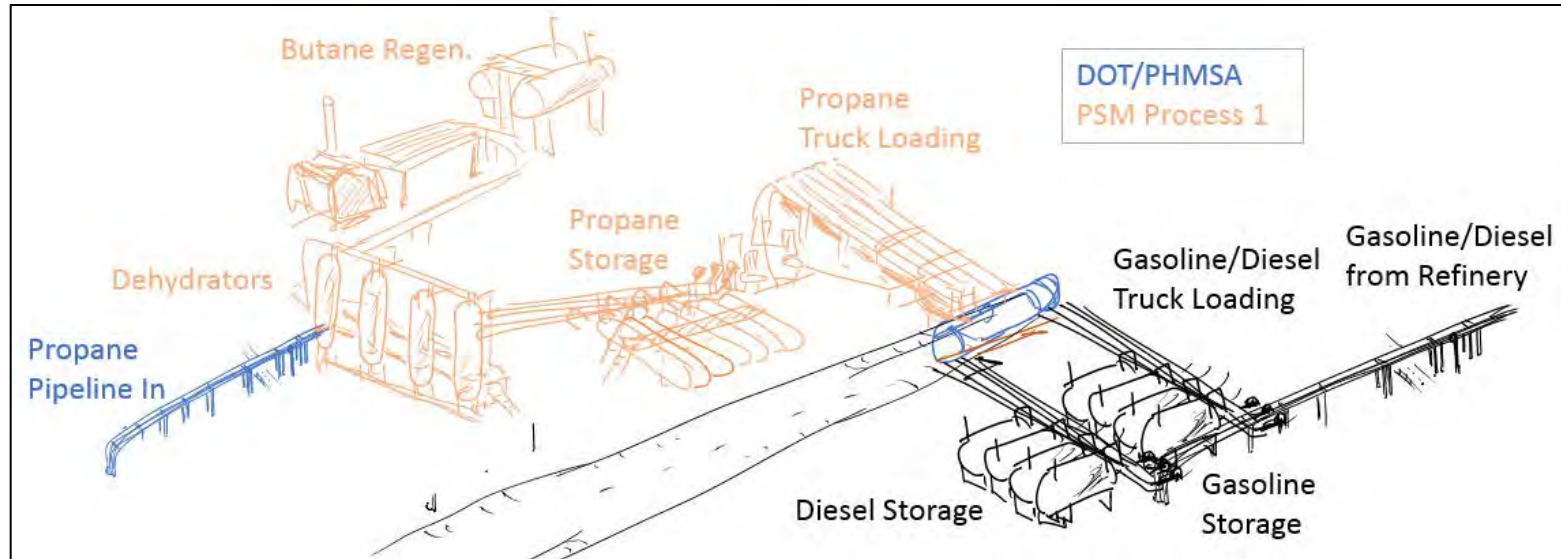
1. Identify equipment that is **interconnected**

- OSHA considers equipment **occasionally** connected to be **included** in the covered process
- Engineering and administrative controls **cannot** be taken into account

2. Identify equipment that is **co-located**

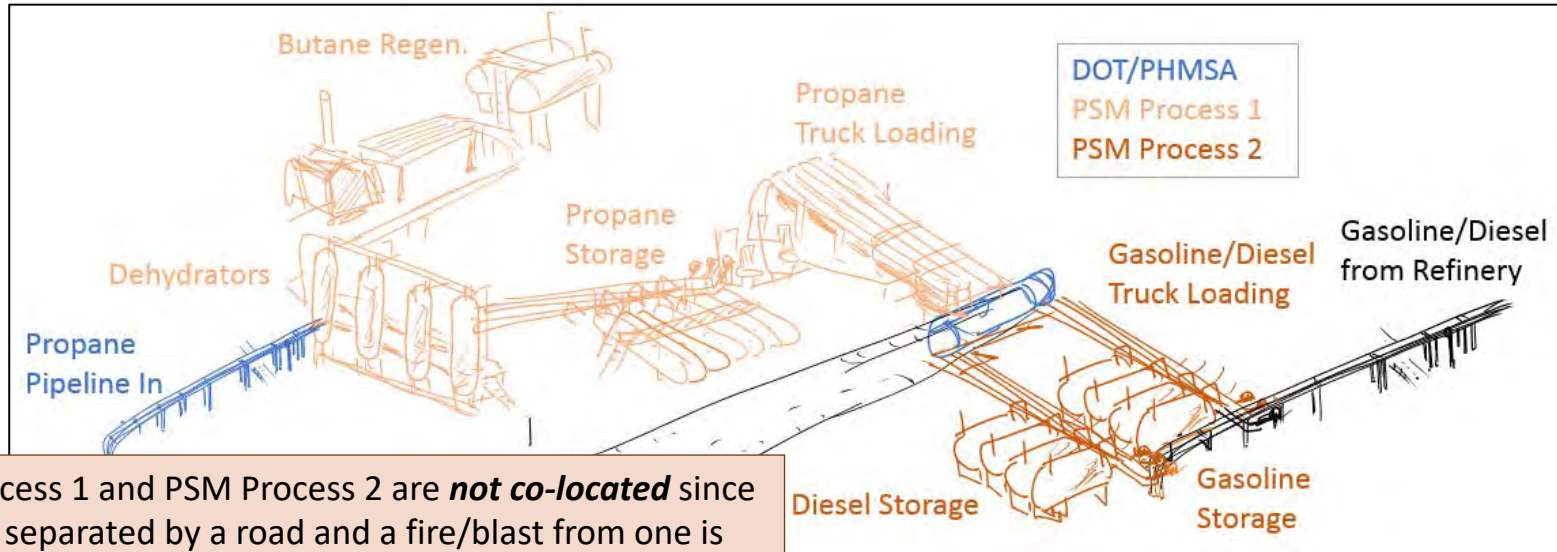
- Owners and operators must make a **reasonable determination** about whether vessels are located such that they could be involved in a potential release
- Passive controls, depending on the hazard, **can be taken into consideration** (e.g. a dike)

Bevo Terminal: Interconnected Equipment



1. The dehydrators, propane storage, and propane truck loading are all interconnected with each other
2. The butane regeneration system is interconnected with the propane system via the dehydrators

Bevo Terminal: Interconnected & Co-Located



PSM Process 1 and PSM Process 2 are **not co-located** since they are separated by a road and a fire/blast from one is not expected to affect the other

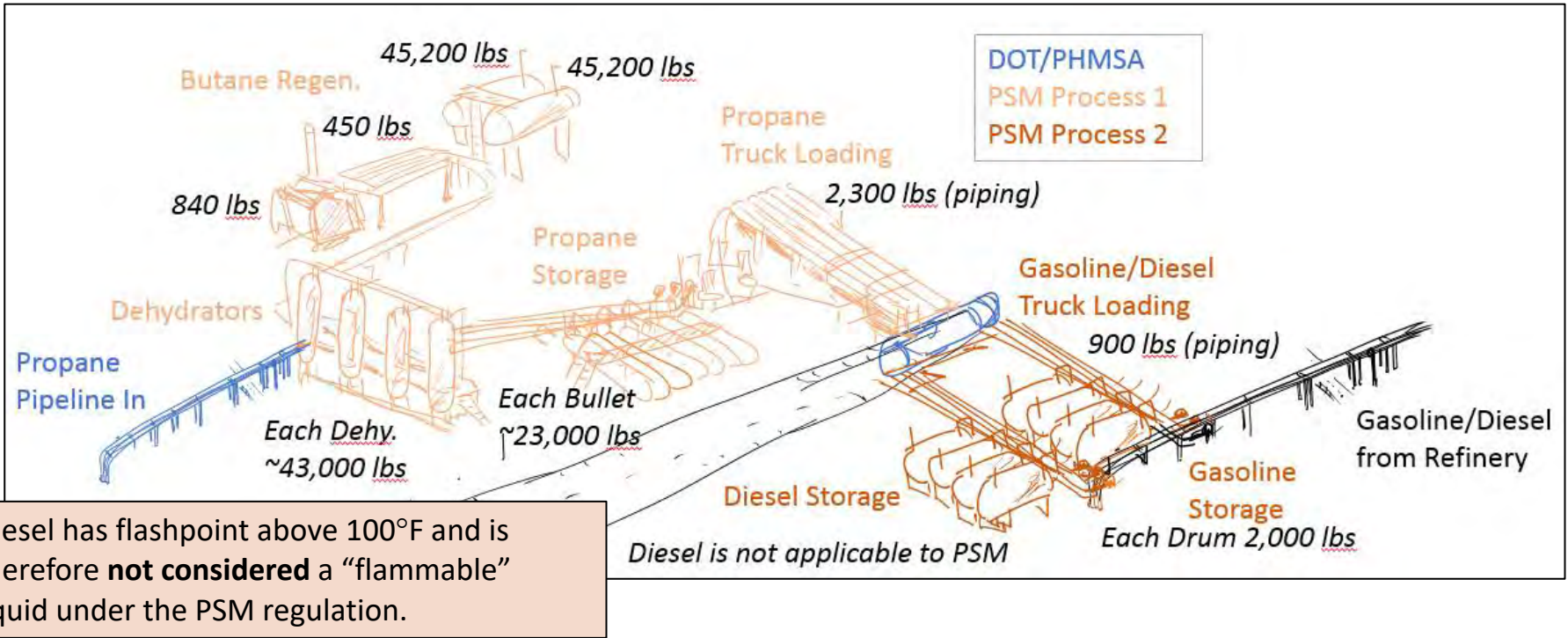
1. The gasoline storage and truck loading are interconnected, as are the diesel storage and truck loading
2. The gasoline system and the diesel system are co-located

Bevo Terminal: OSHA PSM Applicability Steps

3. Aggregate inventories of the highly hazardous chemicals (HHCs)

- Flammable liquids are **treated separately** from flammable gases for aggregation purposes
- The quantity is determined by the amount of HHCs in the process at any particular time, not the capacity of the process.

Bevo Terminal: Aggregated HHC Inventory

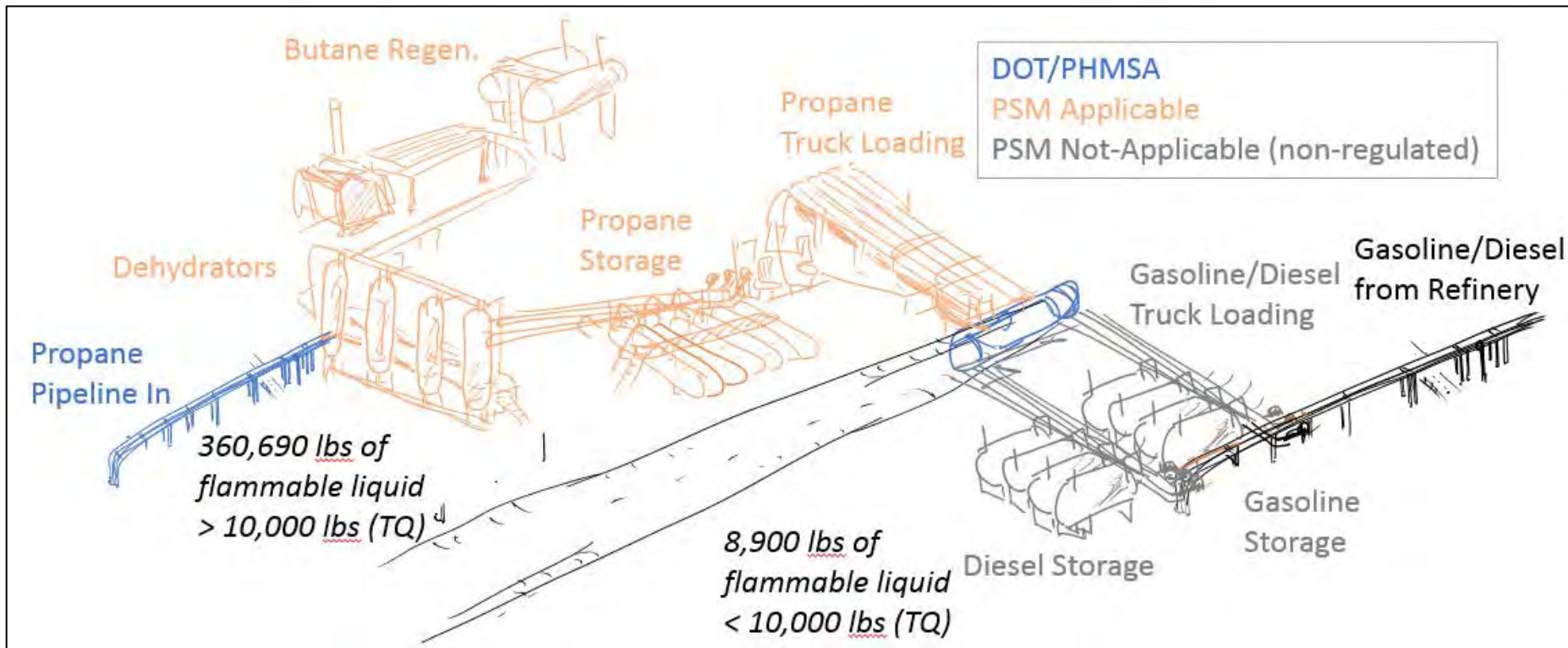


Bevo Terminal: Aggregated HHC Inventory

Flammable Liquid	Process 1 Inventory (lbs)	Process 2 Inventory (lbs)
Propane	269,000*	---
n-Butane	91,690	---
Gasoline	---	8,900
TOTAL	360,690	8,900
<i>PSM TQ</i>	<i>10,000</i>	<i>10,000</i>

*Assumed that all six (6) storage bullets are in use and only three (3) dehydrators are in drying mode while one (1) is in regeneration mode.

Bevo Terminal: Aggregated HHC Inventory



The background of the slide is a monochromatic orange-tinted image of an industrial facility, likely a refinery or chemical plant, situated along a body of water. In the foreground, a large, curved industrial structure, possibly a storage tank or part of a conveyor system, dominates the right side. In the background, several tall smokestacks are visible, with dark smoke rising from them. The facility is illuminated with numerous small lights, and the entire scene is reflected in the calm water in the foreground. A large, white, outlined hexagon is centered over the image, serving as a frame for the title text.

Final Thoughts & Q&A

The Line is Not Frozen

- In the last few years, PHMSA has made moves to cover additional systems, including:
 - Underground storage of gas incident to transportation
 - Hazardous liquids transportation terminals not exclusively pipeline-in/pipeline-out
- What is next?

Questions?

For additional questions, contact:
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