To: Magee, Melanie[Magee.Melanie@epa.gov]
From: Robinson, Jeffrey
Sent: Mon 3/5/2018 2:24:40 PM
Subject: FW: Notes from Texas Offshore Port System (TOPS) Mtg. on 8/26/08

From: Jeffrey Robinson [mailto:Robinson.Jeffrey@epamail.epa.gov]
Sent: Monday, March 05, 2018 7:46 AM
To: Robinson, Jeffrey <Robinson.Jeffrey@epa.gov>
Subject: Fw: Notes from Texas Offshore Port System (TOPS) Mtg. on 8/26/08

----- Forwarded by Jeffrey Robinson/R6/USEPA/US on 03/05/2018 07:46 AM -----

From: Stephanie Kordzi/R6/USEPA/US
To: Jeffrey Robinson/R6/USEPA/US@EPA,
Cc: Rob Lawrence/R6/USEPA/US@EPA, Erik Snyder/R6/USEPA/US@EPA, Bonnie Braganza, Bruced Jones/R6/USEPA/US@EPA
Date: 08/28/2008 01:47 PM
Subject: Notes from Texas Offshore Port System (TOPS) Mtg. on 8/26/08

Jeff,

This is a summary of the highlights of the meeting with EPCO and ENSR on 8/26/08 regarding the proposed TOPs air permitting procedures. ***Rob, Bruce, and Erik if you have any additions/revisions, please advise.*** Thanks.

The company discussed the following during the meeting:

Project Information

- Project is similar to the LOOP project off the coast of Louisiana.
- Pipeline will carry crude oil only.
- Oil transfer rate thru the pipeline will be 100,000 barrels per hour.
- Platforms are 35 miles offshore. One platform is for pumping oil, the other platform is for worker's quarters (will need a NPDES permit). Platforms are approximately 150' apart.
- Pipeline will cross Quintana Island. A booster pump station is located 10 miles inland. Currently there are 3.3 million barrels of storage capacity. An additional 3.9 million barrels of storage capacity will be constructed.
- A 36" line will be constructed to tie into existing pipeline structure to Port Arthur. This pipeline will eventually connect to the expanded Motiva Refinery.
- Air permit application will be submitted late October 2008.
- Projecting NOx emission rate from turbines at 25 ppmvd. They do not believe SCR is BACT, they believe it is LAER. They believe NOx BACT is good management practices.
- Modeling protocol information will be submitted in 1 week to EPA. The company inquired as to the EPA response time. Erik Snyder projected 1-2 weeks.

Project Issues/Questions

- Facility will not have control over incoming (international) ships and therefore cannot dicate BACT emission rates (type of operation, type of fuel, etc.). Facility can only control emissions from platforms. Company indicates that TCEQ SIP only requires that company maintain emission rates for the units for which it has "control" - *I will check on this to confirm*. **How do you determine BACT?**
- 2 Platforms located 35 miles offshore of the TX coast (as the crow flys - from the Houston-Galveston-Brazoria non-attainment area). **Will non-attainment requirements apply (offsets/LAER)?**
- **How are operating scenarios modeled with no idea what type of ships will be offloading at the platform?**
- **What exclusion zone should be used?** (Coast Guard dictates a minimum of 500 meters).

Important Note:

- The company believes that by allowing ships to offload into the pipeline 35 miles offshore, that significant air pollution and traffic congestion will be prevented around the Houston ports. Every barrel of oil that is offloaded results in that much less oil that has to be lightered. They are considering estimating the amount of reductions that could occur - however this would need to be offset with the additional oil (over current levels) that would be coming in due to the increase in refinery capacity from both Motiva and Valero.

Texas getting a floating oil port

Prompted by refinery expansions, Houston partnership is planning a $2 billion terminal 36 miles off the coast of Freeport

By TOM FOWLER Copyright 2008 Houston Chronicle
Aug. 18, 2008, 2:30AM

As politicians continue to debate how to reduce U.S. dependency on foreign oil, a Houston partnership is spending $2 billion to prepare for an energy future that inevitably will include oil imports.

The team will announce today that it plans to build and operate an oil terminal 36 miles off the coast of Freeport.

Enterprise Products Partners and TEPPCO Partners, both affiliated with Houston billionaire Dan Duncan, and the German company Oiltanking Holdings Americas, call the project the Texas Offshore Port System — TOPS.

It would include two floating connections for supertankers to unload crude, 160-miles of pipelines to bring the oil onshore and along the coast to refineries in Houston, Port Arthur and Beaumont, as well as new onshore storage for more than 5 million barrels of crude. Exxon Mobil Corp. and Motiva have committed to take shipments through the system for their coastal refineries.

Motiva is a joint venture of Royal Dutch Shell and Saudi Arabia's state-owned oil company Aramco.

When it begins operations, which could be as early as 2010, the $1.8 billion project will be able to unload up to 1.8 million barrels per day, about 18 percent of the current U.S. oil imports.

"The main catalyst for this project is the expansion that's taking place at refineries along the Texas Gulf Coast," said Wynne Harvey, a director of commercial development with Enterprise.

More barrels

The coastal region from Freeport north to Houston and Port Arthur has about 3.6 million barrels per day of oil refining capacity, according to the companies. About 2.5 million barrels per day of that oil comes in on tankers.

But major refinery expansions will increase the need for oil in the region. The upgrades include two in Port Arthur — Motiva's $7 billion, 325,000 barrel-per-day expansion and San Antonio-based Valero's $1.4 billion, 105,000 barrel-per-day expansion.

Texas ports are not deep enough to accommodate the largest oil tankers, so oil arriving from the Middle East, Nigeria, Venezuela and other foreign sites on supertankers must be transferred to smaller ships for transport to the refineries, a process called lightering. The largest supertankers carry about 2 million barrels of oil and typically offload to four smaller tankers.

The TOPS project would be in 115 feet of water, so even the largest tankers will be able to anchor next to a buoy with pipes connecting it to a pumping station that will move the oil to shore.

"This would provide an alternative to lightering, help reduce congestion in the Houston Ship Channel and other ports and help companies avoid extra port fees," said Jim Schepens, head of commercial development for Oiltanking.

The offshore terminal also is less likely than a coastal port to be shut down by fog and can operate around the clock.

In addition to cutting back on tanker traffic in ports, the terminal may help reduce the risk of oil spills.

About 34 percent of all oil spills between 1974 and 2007 worldwide occurred while tankers were being loaded or unloaded, according to data compiled by the International Tanker Owners Pollution Federation. Cutting back on lightering reduces the number of spill opportunities.

Lightering led to at least three spills off Freeport and Galveston between 1993 and 1995, ranging from 65 barrels to more than 800 barrels spilled, according to the data.

Approval pending

The TOPS project will be similar to the existing Louisiana Offshore Oil Port, known as the LOOP, which started up in the late 1970s. With a capacity of about 1.2 million barrels per day the LOOP takes in an estimated 12 percent of the annual U.S. crude oil imports. Earlier this year the facility pumped its 8 billionth barrel of crude.

Harvey said TOPS will be near Freeport because the water reaches the 115-foot depth there closer to shore than in areas farther east, helping cut undersea pipeline costs. And by coming ashore near Freeport the terminal can serve future customers in the massive chemical refining complex there or at refineries farther south.

The offshore terminal will require approval by the U.S. Coast Guard, while the onshore pipeline and storage facilities will be subject to review by the U.S. Environmental Protection Agency, Army Corps of Engineers and Department of Transportation.

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