DISCUSSION POINTS: AIR EMISSIONS FROM VESSEL LOADING

Loading at LOOP's offshore facility is a superior technology from an air quality perspective in that it substantially decreases total air emissions associated with the loading process and, in addition, reduces the on shore effects of those emissions.

The conventional crude oil loading process currently being utilized in the Gulf involves two transfer operations: (1) Loading of small to medium range tankers at onshore facilities and (2) Lightering in the Gulf to ULCC and VLCC carriers. LOOP's loading process involves a single , carefully managed transfer

The vessels to be loaded at LOOP's Marine Terminal will have a system which blankets the tanks with hydrocarbon free gas before loading. This system both (1) reduces the hydrocarbon vapors produced during the loading operations and (2) assures that exposure levels for personnel at the marine terminal will be well below the applicable O SHA limits. Further, e missions from transfer operat ions will be attenuated by the offshore locations where loading takes place. DOI formula calculations indicate that VOC emissions from the loading operations will be reduced by approximately 97% before r eaching the nearest coastal state.

Onshore loading generally have vapor recovery systems, which are required by 33 LAC 2108 to recover or destroy 90% of the VOC emissions resulting from the transfer operations , but the unrecovered emissions are not att enuated by an offshore location . The transfer operations at LOOP will result in substantially less onshore impact than the current onshore loading operations .

Total emissions resulting from the conventional loading process currently used in the Gulf include both the unrecovered emissions from onshore loading operations (discussed above) and total emissions from the lightering process. LOOP loading operations -- static transfers not involving ballasting – should result in less emissions than lighteri ng alone and substantially less than the combined total of the onshore and offshore transfers associated with conventional loading operations.

LOOP's Marine terminal is an Outer Continental Shelf Source subject to regulation by the Department of Interi or under the Outer Continental shelf Lands Act. Based on conservative assumptions, LOOP has calculated potential emissions from the proposed loading operations using the formula set out in the applicable regulations. The results of that calculation show that emissions from the proposed loading

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operations will not "significantly affect the air quality in the nearest onshore region" and that those operations will be "exempt" from permit requirements under OCSLA .

The United States E PA, after conducting an e xtensive rulemaking proceeding , conclud ed that there are no feasible technologies for control of hydrocarbon emissions from loading oper ations at facilities more than .5 miles offshore. LOOP's approach to control of VOC emissions associated with crude oil loading in the Gulf is a substantial advance from present practice.

LOOP has committed to provide offsets in the event that the emissions from its loading operations ever threaten to reach a level which could significantly affect air quality in the neare st coastal state.

To summarize:

LOOP's proposed loading operations will result in reduction of total VOC emissions associated with vessel loading in the Western Gulf

Impact of those emissions on the State of Louisiana will be reduced

Emissions will be below any level determined to significantly impact the air quality in Lou isiana.

There is no available technology to further reduce emissions from the proposed loading operations .

To address any potential Louisiana air quality concerns, L OOP has committed to provide offsets in the event that emissions from its loading operations ever threaten to rise to a level of significance .

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