UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
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DALLAS TX 75202-2733

JUL 31 2015

LDEQ
Public Participation Group
Louisiana Department of Environmental Quality
P.O. Box 4313
Baton Rouge, LA 70821-4313

Re: Proposed Title V Operating Permit Number 1560-00027-V1 and associated initial issuance of Prevention of Significant Deterioration (PSD) permit PSD-LA-796 authorizing major modification and continuing operation of the Louisiana Offshore Oil Port (LOOP, LLC) – Port Complex, Galliano, Lafourche Parish, Louisiana. Agency Interest (AI) No.4634, Activity No. PER20140001

To Whom It May Concern:

The Environmental Protection Agency (EPA) has reviewed the proposed air permits for the LOOP, LLC Port Complex located in Lafourche Parish, Louisiana. We received notification of the draft permit from the LDEQ via email, which included a copy of the permit and statement of basis, immediately prior to the proposed permits being placed on public notice on June 17, 2015. We then evaluated the draft permits to ensure consistency with the Louisiana State Implementation Plan (SIP) and Federal Clean Air Act requirements. Our comments on proposed 1560-00027-V1 and associated draft PSD Permit No. PSD-LA-796 follow.

Based on our evaluation, we have preliminarily identified the following items of concern:

1) The permit application states that with this permitting action, the size of the 8 larger storage caverns are to be changed from approximately 6 million barrel (MMbbl) to 6.85 MMbbl. It does not appear that the calculations for the salt dome caverns or brine storage were updated from the earlier application. The potential to emit calculation pages for EQT007 notes that the brine design flowrate that was used for the basis of the calculations was 600 MMbbls/year. In addition, on page 2 of 2 of the Salt Dome Caverns discussion, the company describes three basic modes of operation for receiving/delivering crude oil: Mode 1, 2 and 3. The basis of calculations was stated to rely on the profile, Mode 2, which provided the greatest level of potential emissions. For the permitting record, please explain the actual anticipated operational profile and how the assumption used in Mode 2 provides the best anticipated estimate of

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emissions based on the company's business plan. The permitting record should be revised by the applicant to provide the correct basis for the emission limits from the caverns and provide a technical discussion to reflect any emission increases or decreases that may result from the increase in calculations based on the changes.

2) It does not appear that equipment leak fugitive emissions source (the emissions source comprised of the various components such as valves, connectors, flanges, pump seals, etc) were taken into consideration as part of the PSD evaluation of all VOC sources. We acknowledge that pump seals subject to LDEQ state rules were addresses, but only so far as those rule were concerned. Methane emissions from the crude oil transfer and storage should also be addressed, as relevant, with regard to greenhouse gas emissions (GHG). Please update the permit with a proper treatment of this fugitive emissions source category and revise the PSD permit and Title V permits as appropriate, including the BACT evaluation, commensurate with the appropriate treatment of this source category.

3) In the estimation of emission of VOCs from the above ground storage tanks, it does not appear that the calculations supporting the emissions of VOCs from the various scenarios of tank operations were properly addressed. For example, the April 27, 2015 permit application update, Attachment C, page 4 and 5 of 7 states that the Reid Vapor Pressure (RVP) of the crude oil was increased from 5 psi to 8 psi (RVP 5 and RVP 8, respectively). However, it appears that RVP 8 was used in the supporting calculations associated with the initial Title V application for this source, remaining essentially unchanged in the current application from the previous. In addition, the current application and the application in support of the initial Title V permit for the site seem to treat the crude oil and storage tanks in an inconsistent way that potentially affects the emissions estimates. For example, the RVP is listed as RVP 8 on the calculation sheet, but the vapor molecular weight listed is commensurate with RVP 5 crude oil, not 8. In addition, the application indicates that the tank, when on its legs, has a full heel of 0.5 feet in depth but the filling saturation factor (a dimensionless number) used in the calculation is 0.5, commensurate with a partial heel, not a full heel. Please reevaluate the emissions characterization of the tank source category and recalculate the emissions based on a correct and consistent treatment, as appropriate, of the emissions units in question. If the emissions estimates are in error, then the sitewide storage tanks authorized and constructed in association with the initial issuance of the Title V permit will likely also require reevaluation by the applicant for current BACT controls.

4) The Best Available Control Technology (BACT) analysis for the VOC emissions associated with "the six to be constructed 371,000 MMbbl storage tanks" states that the BACT proposed "is compliant with all the applicable requirements of that subpart", i.e., 40 CFR Part 60 Subpart Kb. The analysis states that VOC BACT for the six new proposed crude oil storage tanks is determined to be storage vessels equipped with external floating roofs (EFRs) to limit VOC emissions to the annual ton/year emission rates. In EPA's review of the storage tank BACT for VOC emissions, it is unclear in the permitting record if the emissions from the 90 tank roof landings per year and one tank cleaning was used in this analysis. Also, the technical justification for the 90 tank roof landings appears to be missing from the permitting record. As noted in the Statement of Basis analysis, EPA agrees that it is important to minimize the amount of time that the referenced EFR tank roofs are landed because landing the roof defeats the ability of the roof structure to control tank emissions. There was little in the way of rationale provided in the permit application or permit statement of basis that would illuminate the need for the number of roof landings being represented, particularly given that tanks cleanings were represented to be a fraction of those events (one cleaning per tank per year). The proposed permit also appears to not

contain practically enforceable terms and conditions to define when a landing has commenced and ended with the associated monitoring and recordkeeping.

EPA has also completed a cursory search of the RACT/BACT/LAER Clearinghouse (RBLC) for similar sources. In this search, EPA has noted that CCI Corpus Christi Condensate Splitter Facility (RBLC ID: TX-0756) has been issued a permit for an external floating roof tank that requires control of floating roof tanks vapors when the roof is landed. The RBLC entry states "...(v)apor space under the landed floating roof is degassed to a flare meeting the requirements 40 CFR 60.18 until VOC concentration is 10,000 ppmv or less." The EPA found other RBLC entries identifying capture and disposal of VOC emissions due to tank roof landings and tank cleanings. The EPA recognizes that the closed vent system routed to a vapor control device was evaluated by the applicant in the April 2015 application update, but the evaluation considered that only a subset of the tank roof landings, those associated with cleanings, were taken into consideration when evaluating the cost per ton of emissions reduced. There was no technical reason provided that would exclude tank roof landings not associated with tank cleanings from the streams to be controlled by the flare system described. The EPA believes that, unless technically justified in their exclusion, all tank landing emissions should reasonably have been included in the evaluation, not only those associated with cleanings. The LDEQ should update the BACT review and permit to address these matters.

5) Since January 2, 2011, GHGs have been regulated New Source Review pollutants under the PSD major source permitting program when they are emitted in amounts that meet certain applicability criteria. The Permitted Air Emissions section of the Statement of Basis does not list the GHG emissions associated with this action. However, in EPA's review of the associated permit application, it appears that the GHG emission analysis may have only been completed for the Common Requirements Group (CFG) 0001. Please verify in the permitting record that a review and analysis has been completed for all applicable emission units and that the overall GHG emissions increase does not exceed the current applicability criteria. If the revised GHG emissions levels do exceed the applicability criteria, the EPA encourages the LDEQ to revise the BACT analysis appropriately and include numerical output based limits (including the associated monitoring, testing, recordkeeping, and reporting requirements) that represent all operational scenarios in the permit.

We look forward to working with the LDEQ to resolve the issues identified in our comments and to ensure that the final permit is consistent with the requirements of the approved Louisiana New Source Review and Title V programs. This letter is not a final position by the EPA concerning the disposition of the draft permits. Upon issuance of the final permits for this project, we will review the final permits and LDEQ's response to our comments to determine if our comments have been appropriately addressed in the final permits and permitting record. If you have any questions, please feel free to contact Brad Toups, of my staff, at (214) 665-7258.

Sincerely

for

Jeff Robinson
Chief
Air Permits Section