UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6
1445 ROSS AVENUE
DALLAS, TEXAS 75202-2733

January 22, 2018

22 JAN 2018

Ms. Jenniffer Sheppard
Louisiana Department of Environmental Quality
602 North 5th Street
Baton Rouge, LA 70802

Re: Comments Provided for Attachment 3: Brine Diffuser Benthic Monitoring Plan of Supplemental Information Received December 19, 2017.

Dear Ms. Sheppard:

In an effort to expeditiously coordinate with LDEQ on the LOOP LLC joint EPA/LDEQ permit (LA0049492), we are providing technical comments as early as possible. The Environmental Protection Agency offers the following comments on the Brine Diffuser Benthic Monitoring Plan, to facilitate LOOP's continuing development of a Study Plan for the assessment of the impacts to benthic communities resulting from the brine discharge at Outfall 004. These comments are predicated on the inclusion of Benthic Monitoring as well as an Ionic Imbalance study as requirements in the forthcoming NPDES/LPDES permit.

Project Objectives:

- The document states that hydrography and macroinfaunal assemblages will be assessed after known periods of brine release. The Study Plan should include additional details surrounding the design of the sampling event with regards to the timing of the discharge. Travel time from the point of discharge to the sampling stations should be considered as part of the sampling design. Additionally, the study must include a pre-discharge and post-discharge assessment at each monitoring site. Sampling should be conducted immediately prior to discharge from Outfall 004, as well as shortly after the discharge occurs, allowing for a robust characterization of the potential impacts at each station. Potential acute and chronic impacts are to be evaluated.

Site Description:

- Two control stations (471 and 472) have been selected as controls. The plan states they are located 1000 meters south and east of the diffuser. EPA recommends the control stations be moved at least 18 kilometers downgradient from the diffuser, in order to adequately assess communities outside the area of potential impact from LOOP's brine discharge. Previous CORMIX modeling conducted by the Agency demonstrates this distance to be the point where the salinity of the ambient sea water will not be elevated due to the discharge. Another option would be to investigate the use of benthic data collected at National Aquatic Resource Survey (NARS) National Coastal Conditions Assessment sites for comparison purposes.

- Each monitoring site as well as the brine diffuser site must be adequately characterized in order to substantiate the results of the monitoring.

Project Description:

- The hydrographic profile made at each station to characterize the water column currently includes measurements of salinity and dissolved oxygen. Temperature, pH, and alkalinity should also be included to better characterize the conditions of each site.
- The frequency of sampling events depends on the frequency of brine discharges. The draft Study Plan indicates this may be up to twice per year. However, data submitted in monthly discharge monitoring reports and stated on page 2 of the December 19, 2017 letter from Timothy W. Hardy to Stacey B. Dwyer indicates that LOOP has been discharging an average of up to five times per year. The design of the sampling events should include a frequency that is representative of actual discharge frequency at Outfall 004.
- Data for other parameters (sediment texture and total organic carbon) may be available and used in statistical treatments of the benthic macroinfauna data. EPA strongly recommends sediment composition monitoring be incorporated into the benthic study.

Data Reduction and Reporting:

- Please include a pollution tolerance values for the identified organisms in the study, if available

Data Interpretation Reports:

- The focus of each annual report includes an analysis on whether any differences to the benthic communities in the study could be attributed to the discharge of brine at the diffuser. Additionally, secondary impacts such as low dissolved oxygen, must be evaluated and correlated to primary sources.

We look forward to the continued development of a study plan that will incorporate these key components as well as a quality assurance project plan which, when implemented will yield valuable information over the next few years. If you have any questions or comments, please feel free to contact me at 214-665-7181 or via email at Shaikh.Taimur@epa.gov.

Sincerely,

Taimur Shaikh, Ph.D.
Acting Section Chief
NPDES Management Section

Attachment: Monitoring Plan.doc