REGION 6 EXECUTIVE SUMMARY

TOPIC: Louisiana Offshore Oil Port, LLC (LOOP)

DATE: February 2, 2018 CONTACT: Isaac Chen, Kay Schwab and Taimur Shaikh

PURPOSE/ACTION NEEDED: For information

BACKGROUND: LOOP is the single largest waterborne point of entry for crude into the US. Naturally occurring salt domes provide 8 underground caverns which are used to store up to approximately 60 million barrels of crude oil. LOOP has onshore oil storage at its Clovelly facility, while the load/unloading terminal for is located offshore in federal waters. The wastewater discharge permit is issued jointly by LDEQ and EPA. LOOP's existing wastewater permit expired September 30, 2013. EPA developed the portion of the permit for discharges to federal waters and provided input to LDEQ on discharges to state waters, including the need for biomonitoring requirements at Outfall 004 for the discharge of brine waters. A draft permit was completed in July 2014. The facility commented on the Preliminary Draft Permit opposing the inclusion of biomonitoring requirements citing 1980/1981 studies conducted on effects of brine disposal.

CURRENT STATUS: EPA has worked directly with LDEQ and LOOP to arrive at a compromise regarding the Whole Effluent Toxicity (WET) testing for outfall 004. EPA and LDEQ are requiring Benthic monitoring and an ionic imbalance study in lieu of a WET test to evaluate the toxicity of the brine discharge. The monitoring and study will provide information useful for evaluating the need for WET testing at the next permit issuance. EPA met with US Fish and Wildlife Service and National Marine Fisheries Service in mid-February 2018 and is developing NEPA/ESA and other crosscutter evaluations for the outfalls to federal waters.

ENVIRONMENTAL/PUBLIC HEALTH CONCERNS: Outfall 004 discharges into Subsegment 021102, the Gulf of Mexico, which in 2016 was listed as not supporting its designated use of fish and wildlife propagation (fishing). The suspected cause is low dissolved oxygen.

TECHNICAL CONCERNS:

- Maximum concentrations of brine discharge: chloride – 210,000 mg/l and TDS – 318,500 mg/l which may have potential to impact aquatic life. Seawater typically has a salinity of approximately 35,000 mg/l.
- Outfall 004 to state waters is used for "rare" intermittent discharges of brine during periods of excessive rainfall when surplus inventory is needed to be discharged in order to maintain a safe operating level in the reservoir. EPA R6 has issued permits for the similar Big Hill and Bryan Mound Strategic Petroleum Reserve (federal) facilities whose brine outfalls have had no biomonitoring failures for over 10 years by controlling discharge rates.

REGULATORY/LEGAL REQUIREMENTS:

- Compliance with technology and water quality requirements of the Act.

COMMUNITY CONCERNS: Unknown at this time. The permit has not been public noticed yet.

RECOMMENDATIONS: Continue seeking the inclusion of biomonitoring or equivalent requirements in the LOOP permit for the brine discharge at Outfall 004 as well as addressing ESA and NEPA obligations regarding the outfalls in federal waters.