

A DANGEROUS GAMBLE ON BLUE METHANOL

NEW FACILITY COULD POLLUTE COMMUNITIES, WORSEN FLOODING AND THREATEN POPULATED AREAS WITH CO₂ PIPELINE

Lake Charles Methanol II, LLC's proposed facility and CO₂ pipeline would pose significant toxic risks—what you need to know.



Figure 1. Calcasieu Ship Channel. photo courtesy of Healthy Gulf, flight provided by Southwings

Facility Background

Lake Charles Methanol II (LCM II) is a \$3.24 billion proposal for a methanol production plant with Carbon Capture and Sequestration (“CCS”). The project proposal relies heavily on taxpayer-funded government handouts for “clean energy” and state¹ property tax exemptions.

The project would be built near Sulphur Animal Control in Sulphur, Louisiana, on Bayou D’Inde, one of the most polluted water bodies in the state, and would include a methanol production plant, a tank farm for storing ammonia and methanol, and a shipping terminal.

LCM II would convert methane gas and use carbon capture to produce 3.6 million tons of methanol per year.²

Methanol is used in the making of antifreeze, solvents, and other toxic compounds that are dangerous for people to ingest.³

Methanol has also been discussed as a possible shipping fuel, but this use is still speculative.

Air Quality Impacts

This facility proposes to **emit over 350 tons per year of air pollutants⁵ including nitrogen oxides, volatile organic compounds, methanol, and ammonia, considered harmful** because of their potential to cause breathing disorders, heart conditions, and other serious health effects.

The 3-mile area surrounding the proposed facility already has **some of the worst air pollution in the country and the state⁶** according to EPA data retrieved September 2024:

- **The toxic releases to the air and the concentration of facilities most at risk to chemical disasters** are among the highest in both the state and the nation.
- The census tracts in and around the proposed facility site have **significantly higher cancer rates than the rest of the state** according to the latest Louisiana Tumor Registry.⁷

Wetlands and Water Quality Impacts

Wetland Impacts: The proposed facility would impact 21.54 acres of wetlands, the equivalent of

¹https://www.nola.com/news/environment/lake-charles-industry-to-pay-5-5-million-over-contaminating-calcasieu-river-estuary/article_6272451c-a14a-11eb-bf01-130206b64851.html

²<https://www.opportunitylouisiana.gov/news/lake-charles-methanol-announces-plan-for-new-3-2-billion-manufacturing-plant-in-southwest-louisiana>

³<https://www.chemicalsafetyfacts.org/chemicals/methanol/>

⁴<https://www.rivieramm.com/news-content-hub/methanol-fuel-owners-should-prepare-ships-for-green-fuels-future-84495>

⁵ LCM II draft permit, <https://edms.deq.louisiana.gov/app/doc/view?doc=14215760>.

⁶ Use coordinates: 30.189388, -93.307035 and 3 mile ring in <https://ejscreeen.epa.gov/mapper/>

⁷ Census tracts 22019001801 and 22019003200 at 12 in L. Maniscalco et al., *Cancer Incidence in Louisiana by Census Tract 2012-2021*, (2025), available at: <https://sph.lsuhsu.edu/louisiana-tumor-registry/data-usestatistics/monographs-publications/cancer-incidence-in-louisiana-by-census-tract-2025/>.

about 15 football fields. That does not account for the additional wetland impacts from the pipeline construction. One acre of wetlands can store about one million gallons of stormwater. Destroying these wetlands could increase flood risks on surrounding communities.

Water Quality: Waterways near the proposed Lake Charles Methanol II facility have been contaminated by industrial pollution for decades, and additional pollution threatens the health and well-being of nearby residents. **Any additional wastewater discharge from LCM II's project could exacerbate existing contamination and hamper ongoing restoration efforts,** such as the \$8 million restoration plan funded by a legal settlement for a nearby chemical company's contamination.

Private Profits Funded by Taxpayers

This is the THIRD time in over a decade that an iteration of the same or related company has sought government handouts to build a methanol project in this same spot.

- The first version received \$261 million dollars in assistance from the U.S. Dept. of Energy, and the second version received a \$2 billion conditional loan also from the U.S. Dept. of Energy and yet the project failed both times, wasting taxpayer money.
- Now, LCM II seeks even more funds from the US government, including a loan guarantee and tax credits for CCS. If successful in securing these funds, LCM II may waste even more taxpayer dollars.
- LCM II plans to seek a waiver to avoid paying local property taxes that would otherwise fund critical needs, such as Calcasieu Parish schools, fire departments, and other essential services.
- The LCM II project could try to take advantage of a generous Federal tax subsidy for so-called clean hydrogen production known as 45V. **Over the 10 years of eligibility for 45V, LCM II could claim about \$3.5 billion in taxpayer-funded subsidies.**¹⁰

Hazards of CO₂ Pipelines

CO₂ pipelines are underregulated and can cause serious damage to health and the environment.

LCM II proposes to build a brand-new CO₂ pipeline from its facility.¹¹ To reach to the existing Denbury/Exxon pipeline north of Sulphur and Lake Charles, the pipeline would likely have to cut across sensitive areas, including Interstate 10, and dense industrial and residential areas, exposing the public to risk of harm from pipeline leaks, accidents, and explosions.

CO₂ is corrosive and can deteriorate steel pipelines creating a risk of explosions.¹²

When released at high concentrations, CO₂ displaces oxygen and can cause asphyxiation (inability to breathe) and prevent cars' combustion engines from working.¹³

CO₂ Pipeline Accident Case Studies

Lake Charles Methanol II would connect to the very same pipeline that ruptured in Mississippi which is the same pipeline that leaked in Sulphur, Louisiana.

Satartia, Mississippi (2020): In February 2020, a 24-inch Denbury CO₂ pipeline (since purchased by Exxon) ruptured near Satartia, Mississippi, sending 45 people to the hospital, and about 200 people were evacuated from the area. Individuals nearest to the migrating CO₂ vapor cloud reported having vehicle engine issues.¹⁴

Sulphur, Louisiana (2024): On April 3, 2024, the Exxon/Denbury carbon dioxide pipeline—which LCM's carbon dioxide pipeline would tie into—leaked 107,000 gallons of CO₂ gas, spreading a dense cloud of carbon dioxide throughout Sulphur, Louisiana, only about six miles from the proposed project site. Local first responders were not equipped to deal with the leak and had to wait on Denbury's repair specialist who did not arrive until about two and a half hours after the leak was first reported. Meanwhile, nearby residents were advised to shelter in place without any information about the life-threatening risks at their doorstep.¹⁵

⁸<https://news.oilandgaswatch.org/post/what-causes-long-delayed-zombie-projects-the-market-not-government-permit-reviews>

⁹<https://www.opportunitylouisiana.gov/news/lake-charles-methanol-announces-plan-for-new-3-2-billion-manufacturing-plant-in-southwest-louisiana>

¹⁰Assuming production of 500,000 metric tons H₂ beginning in 2028, hydrogen qualifies for tier 1 (\$0.60/kg), and average annual inflation is 2.3%.

¹¹<https://www.businesswire.com/news/home/20221027005932/en/Denbury-Executes-Definitive-Agreement-with-Lake-Charles-Methanol-for-CO2-Transportation-and-Storage-Services>

¹²https://healthygulf.org/wp-content/uploads/2022/10/CCS-and-Pipeline-Final-Report_Jansto_October-9th-1.pdf

¹³<https://pstrust.org/wp-content/uploads/2023/05/CO2-Pipeline-Safety-Summary.pdf>

¹⁴Wesley Mathews, *Failure Investigation Report - Denbury Gulf Coast Pipeline, LLC - Pipeline Rupture / Natural Force Damage*, (2022), <https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/2022-05/Failure%20Investigation%20Report%20-%20Denbury%20Gulf%20Coast%20Pipeline.pdf>

¹⁵Tristan Baurick, *Latest Carbon Dioxide Leak Raises Concerns about Safety, Regulation, Louisiana Illuminator* (May 2024), <https://lailluminator.com/2024/05/01/carbon-dioxide-leak/>