



Gibbstown Logistics Center Plans to Export Liquefied Natural Gas (LNG)

Delaware River Partners (DRP), subsidiary of New Fortress Energy, plans to build a second dock (“Dock 2”) with two additional ship berths at the Gibbstown Logistics Center (GLC) on the Delaware River. Dock 2 would export liquefied natural gas (LNG) overseas for sale. Originally billed as a warehouse-type terminal with one dock and one berth, the Center was going to handle automobiles, perishables and liquid cargo. Bulk liquids such as natural gas liquids (NGL) like propane and butane would be stored on site, utilizing the decades-old cavern built by DuPont for the manufacture of explosives. Since 2016, Delaware Riverkeeper Network and other organizations (NJ Sierra Club, Clean Water Action, and Environment New Jersey) opposed the project for environmental reasons and in opposition to the export of fracked natural gas liquids. The GLC Dock 1 project was nonetheless approved, was constructed, and now stores and traffics in butane.

Dock 2 has received approvals from major agencies but has not been constructed and some key approvals are still needed. Major agency approvals are being appealed by Delaware Riverkeeper Network. In 2019, DRP’s proposed Dock 2 was brought to light through Freedom of Information Act requests and public opposition was swift and has grown tremendously. In a classic “bait and switch” maneuver, New Fortress Energy had failed to reveal its plans to convert GLC into an LNG export terminal; it now says its revised market plans will concentrate on LNG and NGL exports. The addition of LNG and the expansion of hazardous bulk liquids shipping is a completely different operation that requires a substantial body of environmental, public safety and health analyses, increased regulatory scrutiny from agencies such as the Federal Energy Regulatory Commission and the Pipeline and Hazardous Materials Safety Administration, and much greater public review and input. There has been no environmental impact study conducted and no agency has specifically reviewed and approved the LNG terminal operations. Here are some important facts about the proposed Gibbstown LNG export terminal:

The Gibbstown Logistics Center **Dock 2** LNG/NGL Export Terminal Proposal:

- Would provide navigational access, mooring, and loading equipment for two ships up to 173,400 cubic meters in capacity and would be located west (downriver) of the single multi-purpose dock. The volume of LNG to be exported in current plans is unclear due to DRP’s shifting numbers and missing data. But recent applications for permits reveal more than 5 million gallons of LNG is the average daily export volume. NGLs would be shipped in smaller vessels and could use both docks.
- Would triple the potential activity at the facility, greatly increasing ship traffic. Each year 100 ships are projected to call on Dock 1 (NGL + other cargo); 37 LNG ships at Dock 2; total: 137 ship vessels.
- Would require dredging of an additional 45 acres of river, impacting water quality; critical habitat for fish, aquatic life, and wildlife; river vegetation; and other river uses. Species that would be harmed include federally endangered Atlantic sturgeon and short-nosed sturgeon; anadromous fish; and state-listed Bald Eagle and Osprey.
- According to a DRP permit regarding the Rt. 44 Bypass road into the GLC site, over **1,650 trucks trips each day** would come and go from the Gibbstown Logistics Center. The total “daily trips” of all traffic is estimated at **8,450** to/from the site. According to the Army Corps of Engineers (ACE) permit, 360 trucks

will enter the site each day, totaling 720 truck trips daily. The ACE truck count are in addition to rail car shipments of LNG and do not include NGL truck traffic. The proposed Rt. 44 Bypass is required to be operational prior to LNG truck traffic. Trucks carrying dangerous NGL, now travel and will continue to move through residential Gibbstown.

- Train traffic to Gibbstown Logistics Center would transport LNG under a Special Permit issued by PHMSA to New Fortress Energy's subsidiary Energy Transfer Solutions (ETS) in 2019ⁱ; the Special Permit expired on November 30, 2021. ETS has applied for a renewal of the permit, under PHMSA consideration at this time. The permit allowed up to two 100-rail car trains every day to carry LNG from a proposed liquefaction plant in Wyalusing, Bradford County, PA approx. 200 miles to Gibbstown. The rail route travels through hundreds of communities and cuts through cities such as Allentown, Philadelphia and Camden, affecting many people of color and low income populations already overburdened with environmental hazards.ⁱⁱ The rail cars that would be used were designed 50 years ago and never used for LNG. A longstanding national ban on transporting LNG by rail was lifted by the Trump administration but the ban is proposed by the Biden administration to be reinstated while more study is done. But the Special Permit for railing LNG to Gibbstown was issued separately, and allows the use of rail cars PHMSA themselves required to be modified due to safety issues. While the changes in the federal rule don't make the cars safe, a double standard is simply not just. Allowing unsafe trains here turns the railway route and the Gibbstown and Wyalusing regions into sacrifice zones, gravely endangering millions of people and irreplaceable assets.
- Would "transload" LNG around the clock from trucks or rail cars into shipping vessels, taking about 2 wks. to fill, an extended loading period that greatly increases the opportunity for accidents and spills. The GLC terminal property location is perilous: it adjoins backyards in Gibbstown; Camden is 10 minutes away; it's 1.2 miles to the PA side of the river, 2.7 miles to densely populated Chester PA and Philadelphia is about 3 miles. One possible rail route is just across the river from Trenton and Mercer County. Federal guidelines say LNG sites should be "remote" but this facility is not.
- NGL, classified as "liquefied hazardous gas" (LHG) would be unloaded from a 20-railcar rack into tanks and the underground cavern, and then loaded by a pipeline to trucks or onto ships.
- New Fortress Energy plans to export LNG to Puerto Rico, Jamaica, Ireland, Angola, and more.
- Air pollution from the site, including truck traffic, diesel equipment, venting and flaring of LNG and NGL, has not been fully permitted or assessed, nor have the climate impacts of methane releases and/or the construction and operation of a proposed "small capacity" natural gas liquefier on site.

Other facts:

Gibbstown Logistics Center and Dock 2 details:

- 200 N. Repauno Ave., Gibbstown, Greenwich Township, Gloucester County, NJ, on Delaware River
- 371 acres included in Block 8, Lots 1, 2, 3, 4 and 4.02 in Greenwich Townshipⁱⁱⁱ
- Located on a 1630-acre tract previously owned by DuPont since 1880 to manufacture explosives and chemicals. Now owned by Chemours, the site is still being cleaned up, grossly contaminated by PCBs and several toxics, including nitrobenzene, a highly toxic carcinogenic chemical. Pollution could be stirred up by the planned dredging, site disturbance, construction, and operation.
- Dangerous new rail infrastructure was approved by NJDEP on the site allowing the mile-long trains to go through wetlands, internal riparian areas and right along the riverfront. No construction yet.
- The Federal Energy Regulatory Commission (FERC) may assert jurisdiction over the facility. No new construction should occur at GLC until FERC decides because they would review all LNG-related operations and infrastructure as they perform an environmental study.

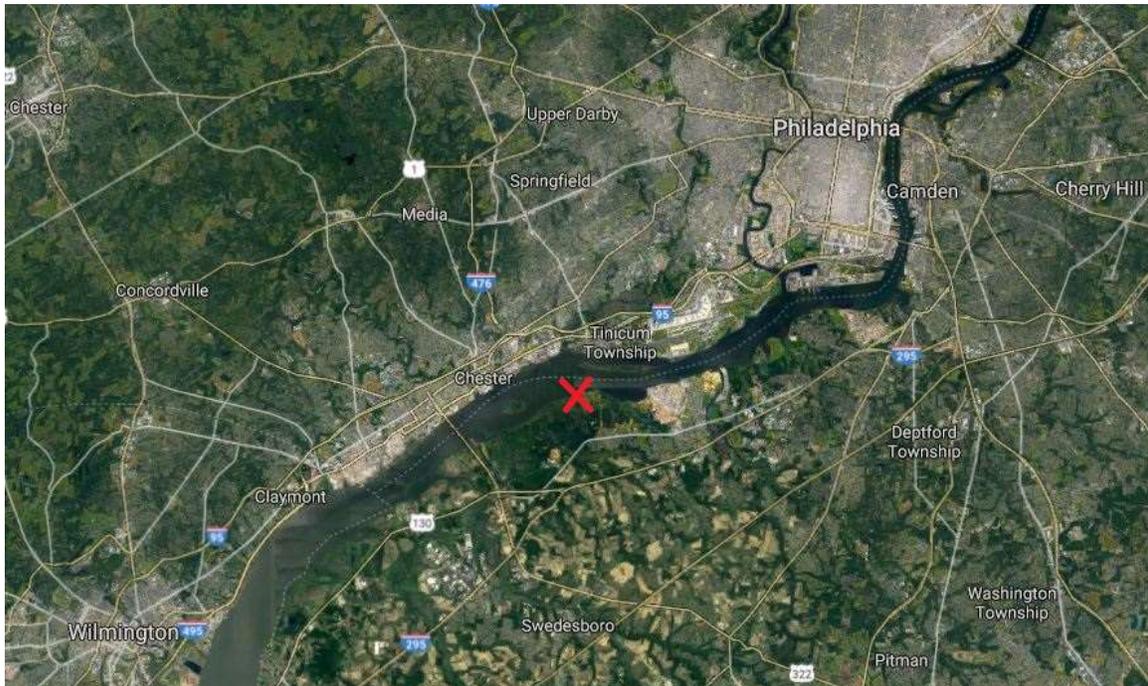
What are the unique dangers of Liquefied Natural Gas (LNG)?

The methane in natural gas is cooled down to -260 degrees F to become a liquid and must be maintained at that temperature or it will vaporize. LNG can be released if its container is punctured such as in a truck accident, train derailment, or other incident. An LNG release immediately transforms into an extremely cold but flammable vapor cloud 620 times larger than the storage container. An unignited ground-hugging vapor cloud can move far distances downwind^{iv} and can travel quickly. Exposure to the vapor can cause extreme freeze burns. If in an enclosed space, the vapor robs the oxygen from the air, causing death by asphyxiation^v. If confined in a space such as a tunnel or sewer system, it can spontaneously explode.

If ignited, the fire is inextinguishable. The 2016 US Emergency Response Guidebook advises fire chiefs initially to immediately evacuate the surrounding 1-mile area.^{vi} No federal field research has shown precisely how far or fast the vapor cloud can move so in the most recent serious Plymouth, Washington, LNG fire, they evacuated a 2-mile radius^{vii}. The resulting pool fire is so hot that second-degree burns can occur within 5 seconds for those exposed within .69 miles and 10 seconds of exposure could be fatal.^{viii}

An LNG release can cause a Boiling Liquid Expanding Vapor Explosion (“BLEVE”), that vaporizes and combusts at the same time, threatening miles around with catastrophic damage.^{ix} The explosive force of LNG is similar to a thermobaric explosion – an extremely powerful bomb. If 22 rail cars were to break open, the energy released equals the force of the Hiroshima bomb.

There is a lack of response training or equipping of communities exposed to LNG.



Gibbstown Logistics Center on Delaware River

See static maps of all potential routes at: <https://bit.ly/3IMsyaf>

See interactive map of all potential routes with population impacts:

<https://www.delawariverkeeper.org/taxonomy/term/1174>

For more information: <https://bit.ly/2L6uuPV>

To get involved: tracy@delawariverkeeper.org

ⁱ Special Permit DOT-SP 20534

ⁱⁱ See map: <https://www.delawariverkeeper.org/taxonomy/term/1174>

ⁱⁱⁱ New Jersey Department of Environmental Protection Waterfront Development Permit WFD190001

^{iv} "Immediate ignition with liquid still on the ground could cause the spill to develop into a pool fire and present a radiant heat hazard. If there is no ignition source, the LNG will vaporize rapidly forming a cold gas cloud that is initially heavier than air, mixes with ambient air, spreads and is carried downwind." P. 10
"Methane in vapor state can be an asphyxiant when it displaces oxygen in a confined space." P. 11. SP 20534 Special Permit to transport LNG by rail in DOT-113C120W rail tank cars. Final Environmental Assessment. Docket No. PHMSA-2019-0100. December 5, 2019. P. 10.

^v SP 20534 Special Permit to transport LNG by rail in DOT-113C120W rail tank cars. Final Environmental Assessment. Docket No. PHMSA-2019-0100. December 5, 2019. P, 11.

^{vi} US DOT Emergency Response Guidebook. <https://www.phmsa.dot.gov/hazmat/erg/emergency-response-guidebook-erg>

^{vii} Powell, Tarika. Sightline. "Williams Companies Failed to Protect Employees in Plymouth LNG Explosion." June 3, 2016. <https://www.sightline.org/2016/06/03/williams-companies-failed-to-protect-employees-in-plymouth-lng-explosion/>

^{viii} "The Council on Environmental Quality describes the danger: The characteristics of these fires on water, like the behavior of vapor clouds, are subject to great uncertainties and estimates of the safe distance from their intense radiant heat vary significantly. According to a recent FPC (Federal Power Commission) analysis, a generally safe distance from a 25,000-cubic-meter pool fire would be about 8,300 feet or 1.6 miles. People standing 3,600 feet away would blister in 5 seconds, and exposure for longer times-perhaps 10 seconds -- would be fatal. Estimates based on Bureau of Mines figures indicate that the danger might extend farther. According to these figures, on a windless day when thermal radiation is greatest, unsheltered people at a distance of 9,600 feet, or nearly 2 miles, could suffer fatal burns." "DELAWARE COASTAL MANAGEMENT PROGRAM AND FINAL ENVIRONMENTAL IMPACT STATEMENT". [From the U.S. Government Printing Office, www.gpo.gov]. U.S. DEPARTMENT OF COMMERCE, National Oceanic and Atmospheric Administration, Office of Coastal Zone Management, *41T4 O74f. UNITED STATES DEPARTMENT OF COMMERCE, The Assistant Secretary for Science and Technology, Washington, D.C. 20230, JUL 2 1979. P. 225 of PDF.

^{ix} "LNG tank BLEVE is possible in some transportation scenarios." Sandia National Laboratories, "LNG Use and Safety Concerns (LNG export facility, refueling stations, marine/barge/ferry/rail/truck transport)", Tom Blanchat, Mike Hightower, Anay Luketa. November 2014. <https://www.osti.gov/servlets/purl/1367739> P. 23.