



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

Delaware River Partners (DRP), subsidiary of New Fortress Energy (NFE), plans to build a terminal at the Gibbstown Logistics Center (GLC) on the Delaware River for the export of liquefied natural gas (LNG) overseas. The LNG would be made by a NFE subsidiary at a liquefaction plant in Wyalusing Twp., Bradford Co., PA, where site-preparation work has been permitted by PA Department of Environmental Protection. The plant would receive gas delivered by pipeline from fracking wells in the region. Under the scheme, the LNG would travel up to 200 miles overland through potentially 12 counties and hundreds of Pennsylvania and New Jersey communities using trains and/or trucks. Up to 1.9 million people are within two miles of the transportation route; many are people of color and low income populations already unjustly overburdened by environmental pollution, in densely populated regions such as Philadelphia, Allentown, Chester, Wilkes Barre and Reading in PA and Camden, Trenton, and Gloucester County in NJ. The project's enormous footprint poses unmitigatable threats to the environment, public safety, and climate. Public opposition is huge.

The 2019 proposal by DRP to add LNG to the GLC complex is supposed to reflect New Fortress Energy's revised market plans – to concentrate on Liquefied Natural Gas (LNG) in addition to the NGL they are already handling at the GLC facility. The addition of LNG and the expansion of hazardous bulk liquids shipping is a completely different operation than they had originally proposed to the local communities. The new plans require a substantial body of technical, environmental, public safety and health analyses, increased federal scrutiny and regulatory control, and much greater public review and input. Additional federal agency reviews are pending. Here are some of the important facts about “Dock 2”, the proposed LNG export terminal at the GLC:

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; rare 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 LNG tank trucks will enter the site each day, totaling 720 truck trips daily. The ACE truck count is 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 through residential Gibbstown; ongoing complaints from local residents have gone unaddressed.

- 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-railcar 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. However, 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 do not 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.
- The liquefaction facility planned to be built by NFE subsidiary Bradford County Real Estate Partners (BCREP) in Wyalusing Township received some permits but still requires other state and possibly federal approvals. The site has been inexplicably shuttered by BCREP since spring of 2020; the LNG plant has not been built. The PADEP Air Permit was renewed in 2020 but is being legally challenged by regional environmental organizations. Community members are concerned about the potential impacts of the project and its operation, as are municipalities along the LNG transportation route in this rural region on the Susquehanna River.
- The GLC terminal 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 away. 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 into 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 Proposed Gibbstown LNG Export Terminal 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 on the site was approved by NJDEP in 2021, 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. Many organizations, including Delaware Riverkeeper Network, have intervened and filed Protests to the FERC dockets for both the Gibbstown Terminal and the Wyalusing liquefaction facility and have opposed the PHMSA Special Permit for the transportation of LNG for the project.
- Delaware Riverkeeper Network is appealing the major permits for the Gibbstown LNG Terminal project, including approvals from the Army Corps of Engineers, the Delaware River Basin Commission, and NJ Department of Environmental Protection.

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.