



Delaware League of Women Voters

TO: Delaware Department of Natural Resources and
Environmental Conservation (DNREC)

SUBJECT: Comment on the proposed regulations for the
Coastal Zone Conversion Permit Act of 2017

DATE: July 9, 2019

To the Hearing Officer:

The League of Women Voters of Delaware (LWVDE), working from our long-established positions protecting human life and the environment that supports us, find the proposed regulations in the Coastal Zone Conversion Permit Act (CZCPA) to be entirely inadequate.

The decision to allow transport of various liquefied petroleum products from drilling in the Marcellus Shale down the Delaware River, as expressed in the vote of the Governor's official representative at the June 12 Delaware River Basin Commission meeting, is one that has not yet been properly communicated, let alone explained, to the residents of Delaware. We are left wondering if Governor Carney has properly considered the dangers involved in this process. The CZCPA regulations, as discussed below, do not reflect any such consideration.

Regarding the regulations that should be protective of the environment of the Coastal Zone, we believe that they are very unlikely to do so.

Will People Living and Working in the Coastal Zone Be Protected?

The most significant concern for us is the possibility that new heavy industry operations established through the CZCPA or new bulk transfer operations also permitted through these regulations might be involved in what is referred to as a catastrophic incident in the definition section.

New industries, particularly those involved in chemical manufacturing operations and in bulk transfer of materials that are inherently dangerous, can present dangers that may not have been completely understood or properly evaluated by members of the RAC. In particular, we are concerned about transfer of liquefied products obtained from natural gas

extraction.

In a move that attracted much attention in newspapers in New Jersey and Pennsylvania, Governor Carney, along with the four other Delaware River Basin Commission members, voted to allow export shipments of products such as liquefied natural gas (LNG), liquefied petroleum gas (LPG) and natural gas liquids (NGL) out of a port in Gibbstown, NJ.^{1, 2} The hydrocarbons in these different designations are all volatile and considered to be highly explosive. LPG, (propane and butanes) and NGL, (a mix of hydrocarbons from ethane to pentane) are both generally considered to be more likely to explode in case of leaks or spillage and capable of creating hotter fires and bigger explosions than LNG (primarily methane).

This will be the first port to ship these gases from unconventional natural gas extraction (fracking) down the Delaware River. It will allow the materials to be transferred to ships in a port in a densely populated region and down the river past the city of Wilmington and other centers of population including Claymont and New Castle.

This move seems counter to the trends across the U.S. in which existing ports, as well as proposed facilities such as Jordan Cove, Oregon, are located in areas that are separated from other port activities and well away from centers of population. In Boston, the original import facilities were located right in the main port in 2006, when imports of LNG were being considered in New Jersey, across the river from Claymont. The extraordinary steps taken to protect the facilities from accidental contact with other ships and from possible terrorist attacks were described in news accounts of the time.³ Since then, the import facilities were moved to islands 13 miles away from the Port of Boston and equally distant from other parts of the mainland.

Offshore bulk transfer facilities for gas, liquids and solids that were not in use in June 1971 now appear to be allowed under CZCPA Sect. 4.3. Conversion of existing docks at parcels subject to the CZCPA to serve in facilities for bulk transfer appears to be possible under section 4.6. Pipelines that serve as bulk transfer facilities which were not in operation on June 28, 1971 can be allowed to operate under a conversion permit. Would the same be true for what are now referred to as “virtual pipelines” (transmission of liquids or liquefied gases by trucks or railroad cars)?

Facilities associated with bulk transfer of various components of natural gas extraction (except for LNG, which is expressly prohibited by 4.1.5) could be established at such sites.

¹ <https://www.inquirer.com/business/lng-export-terminal-philadelphia-repauno-fortress-approved-20190612.html>

² <https://whyy.org/articles/drbc-confirms-plan-to-build-build-lng-export-terminal-at-new-south-jersey-port/>

³ http://www.nbcnews.com/id/4276348/ns/us_news-security/t/are-natural-gas-ships-boat-bombs-terror/#.XSQAzNNKhYk

The transfer of these liquefied materials from pipelines or rail tankers to storage tanks and the subsequent transfer from the storage tank to seagoing tankers offer several opportunities for leaks or spills to occur. Ethane and higher hydrocarbons are more dense than air and tend to collect in low-lying areas where they can remain until they are ignited by a spark. The resulting fire may, depending on the amount of liquid spilled, be sufficient to result in explosion of storage tanks in the facility

A possible scenario for truly catastrophic explosions is described by a brief news report by the American institute of Physics in 2011 entitled “Peering inside the ‘deflagration-to-detonation transition’ of explosions.”⁴ Explosions are usually set off when fires lead to the rapid expansion of flammable gases in closed or partially closed containers. This article reports how fires propagating at relatively low speeds can transition into a different regime where the burning is driven by strong shock waves that can travel at more than 5 times the speed of sound.

The paper reports that, “The power and destructive potential of such detonation-driven explosions is vastly greater than flame-driven ones.” While the science surrounding such powerful explosions is still under investigation, the possibility that such catastrophic detonations might occur in the cases of large releases of hydrocarbons from shipping vessels is too chilling to ignore.

The docks used for such bulk transfer facilities and the tankers used for transport of the liquids are generally owned by Limited Liability Corporations that own only one dock or only a single tanker. If an LLC’s property is destroyed in a catastrophic event, there will no funds available to pay for repair to damaged infrastructure or compensation for personal injuries or lost lives.

We are not in any way able to predict the possibility of catastrophic events resulting from accidents or intentional attacks occurring during the export of explosive liquids. Neither can we estimate the level of destruction possible in some worst-case scenario. However, we do believe that neither the residents of Delaware nor the taxpayers of the U.S. should be held responsible for paying for repair of infrastructure and compensation for lives lost resulting from accidents involving tankers or other property owned by LLCs.

The CZCPA, starting in section 8.4, describes the conditions for Financial Assurance that must be set up to cover cleanup of hazardous wastes and remediation of the site from damage by sea-level rise or coastal storms. It seems to us that LLCs involved in potentially dangerous operations such as chemical manufacturing or operation of bulk transfer facilities or the tankers involved in transfer of explosive materials in the export process should also be required to have Financial Assurance sufficient to cover the costs of damage to

⁴ <https://phys.org/news/2011-11-peering-deflagration-to-detonation-transition-explosions.html>

surrounding infrastructure and all other compensation necessary following a catastrophic event.

Some large, well-established insurance companies offer insurance to airlines and other businesses that need to be protected from rare incidents that could be financially devastating. If the probability of a truly catastrophic event is extremely small and the damage to infrastructure during more limited incidents is generally modest, obtaining appropriate Financial Assurance should not represent a prohibitive expense for the LLCs involved. If the rates charged for such insurance are beyond what the LLCs can afford, we should be very wary about allowing such operations to occur in Delaware's waters.

Will the Environment in the Coastal Zone Be Protected?

We have concerns about both the enforceability and the mechanisms of enforcement for environmental damage occurring as a result of new activities permitted under CZCPA. We believe that the new offset rules, which stipulate that Delaware (as a whole), rather than Delaware's Coastal Zone, do not adhere to what we believe to be Governor Peterson's original goals for the Coastal Zone Act: That the use of properties in the Coastal Zone would be such that it would result in maintaining and even improving the environment of this critical area.

The biological diversity and natural beauty of this area contribute to many industries that make it important to Delaware's economy. Commercial and sport fishing, harvesting of oysters, cruises to observe marine mammals in the surrounding waters and crowds visiting the annual spawning of horseshoe crabs combined with the migration of red knots in Delaware Bay all play important roles in our economy. Walking and bird watching provide recreation for Delawareans.

Degradation of the environment through water and air pollution can affect all these important activities that bring economic and societal gains. Unfortunately, the new offset regulations could have the effect of moving more pollution-causing activities into the Coastal Zone. These regulations fail to take into account the sensitivity of the diverse life forms in this area to air and water pollution and loss of habitat.

Section 8.2.2 says that, "environmental goals and indicators may be developed by the Department (DNREC)". This seems to leave us in the same situation that has existed concerning enforcement of environmental regulations in the Coastal Zone over the past 20 years. Without specified goals and without measurements based on accepted indicators, there will be no meaningful way to determine whether or not new industries are resulting in a significant degree of degradation in this vital area. In the past this lack of goals and indicators has left far too many of the regulations unenforceable.

We are also concerned as to whether there will be enforcement of laws when there is a

demonstrable failure of a permittee to abide by the terms of the permit. In recent years there have been, unfortunately, several cases in which violations of existing business entities in the Coastal Zone have been either ignored or met with fines that seem far too small to be commensurate with the damage such violations could cause. We are interested in seeing what, if any, effect the new provision* under 18.2* will have.

Summary

In summary, we are deeply concerned that, by allowing shipment of flammable and explosive liquefied natural gases down the long and narrow main channel of the Delaware River, the Delaware River Basin Commissioners (including Governor Carney) have exposed both residents of Delaware's northern Coastal Zone and the massive transportation infrastructure in the region to a uniquely high level of danger from fire and explosions due to accidental or intentional catastrophic incidents. The level of damage that could happen at other U.S. ports involved in import/export of these materials would be lower because these ports have been intentionally located offshore or otherwise well distant from population and infrastructure centers. The level of danger will likely be increased if new export facilities are permitted in Delaware under the CZCPA.

We believe that the environmental regulations Overall these regulations will not provide the degree of protection that should be accorded to this unique and fragile natural resource.

Thank you for your attention to our concerns.

Sue Claire Harper
co-president, LWVDE

Coralie Pryde
co-chair, Environmental Committee
LWVDE

*The Attorney General shall have the power to issue a cease and desist order to any person violating any provision of this chapter. Provided that any cease and desist order issued pursuant to this section shall expire (1) after 30 days of its issuance, or (2) upon withdrawal of said order by the Attorney General, or (3) when the order is superseded by an injunction, whichever comes first