

LNG terminal for Mobile may ignore congressional intent

Congress wanted LNG plants at 'remote' sites

By BEN RAINES, Staff Reporter
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Federal officials appear to be ignoring a congressional mandate designed to discourage construction of liquefied natural gas terminals in populated areas, according to U.S. Rep. Ed Markey, D-Mass., author of the 1979 House bill outlining minimum safety standards for such facilities.

"When Congress passed my LNG safety bill back in 1979, it directed the Department of Transportation to prescribe standards for the siting of new LNG facilities that were supposed to consider the need to encourage remote siting. I am not satisfied that DOT has been doing enough to comply with this congressional intent," Markey told the Mobile Register via e-mail.

Indeed, both Markey's bill and federal documents associated with it stress the importance of "remote siting" for LNG terminals to protect the public from possible harm.

Of the four LNG terminals operating in the United States, only the terminal in Markey's home district of Everett, Mass., a Boston suburb, sits in a densely populated area. That facility was constructed prior to passage of Markey's bill.

But in the last year, several companies have proposed placing LNG terminals in populated areas, including Hollinger's Island just south of the city of Mobile. Two weeks ago, the Alabama Port Authority granted ExxonMobil an option to purchase State Docks land at the former Navy home port on Mobile Bay to construct an LNG terminal next to a residential neighborhood. Nationally, other proposals would put terminals in Long Beach, Calif.; Harpswell, Maine; and Fall River, Mass., near Providence, R.I.

Scientists' concerns

Scientists argue that the fire hazards posed by LNG facilities and the tankers that deliver the super-condensed natural gas are simply too great to allow them near residential areas. LNG tankers, among the largest ships in the world, carry natural gas that has been turned into a liquid and deliver it to receiving terminals, where it is converted into the conventional vaporous form used by consumers.

A group of scientists who helped lay the groundwork of federal LNG regulations has predicted that a tanker accident could result in a circle of fire up to a mile across. Heat from such a fire would be so intense that people two miles from the ship could experience excruciating burns within seconds.

ExxonMobil touts LNG's extended safety record and vows not to build a terminal unless the company can meet federal safety regulations. Officials at the State Docks say the federal review process will ensure that the facility is safe.

Markey is concerned that federal agencies are not following the will of Congress when it comes to those same LNG regulations.

Remote siting

When the LNG regulations were being drafted in 1979, the U.S. General Accounting Office, which acts as the investigative arm of Congress, researched the issue at the behest of congressmen.

"We believe remote siting is the primary factor in safety," GAO Director J. Dexter Peach testified before the Senate.

An agency summary of his 1979 testimony indicates there were problems with the Department of Transportation's response to the GAO safety concerns. The DOT is one of the agencies charged with regulating LNG deliveries and facilities.

Peach's testimony focused on both liquefied natural gas and liquefied petroleum gas, which are sometimes referred to collectively as "liquefied energy gases," or "LEG."

"GAO is concerned that the DOT response has not met two major GAO recommendations: a requirement that all new large LEG facilities be built in remote areas, and a prohibition against LEG transportation through densely populated areas," states the summary of his testimony. The new law - passed seven months after the testimony - reflected the GAO concerns.

The final bill in the U.S. Code states: "The Secretary of Transportation shall prescribe minimum safety standards for deciding on the location of a new liquefied natural gas pipeline facility." The law lists six factors that the secretary must consider in setting those minimum standards. No. 6 is "the need to encourage remote siting."

Standards skirted?

But members of Markey's staff said that the "remote siting" language seems to have been skirted by federal agencies as new regulations were developed.

"The congressman has a very strong interest in seeing to it that his legislation is being faithfully implemented," said a Markey staff member who handles LNG issues for the congressman. Officials in Markey's office said staff policy prevented them from being quoted by name.

The Mobile Register sought to reach DOT officials in Washington last week to ask them to discuss the agency's handling of the safety standards. The newspaper did not receive a response. When Congress passes a bill, it often delegates the authority to write specific regulations to various agencies. In this case, the departments of Transportation and Energy were assigned to write and implement the regulations desired by Congress.

The Mobile Register, however, was unable to find any reference to "the need to encourage remote siting" in the rules crafted by the federal agencies, even though it is referred to explicitly

in Markey's bill. Instead, the siting rules require "hazard exclusion zones" around LNG terminals.

The rules compel companies to set the exclusion zones based on fire dangers posed by specific "design spills." Those design spills are theoretical accidents that might occur at an LNG facility.

Narrow scenarios

Scientists point out that the scenarios outlined in the regulations envision only extremely small accidents, involving less than 1 percent of the LNG stored at a typical LNG terminal. None of the scenarios consider a fire involving the tanker ships delivering the gas, which many scientists believe are far more dangerous to the public than the land-based equipment.

"The big question is what scenarios do you have to look at? On land, you have to look at a spill from the largest transfer line that lasts 10 minutes. That means when somebody submits an application today, they have to model for that spill. That's the one used to set their hazard exclusion zones," said Jerry Havens, a University of Arkansas chemical engineering professor and one of the world's leading LNG experts. Federal law requires regulators to use scientific work designed by Havens when siting LNG terminals.

Havens and other scientists contend that safety zones based on the limited, 10-minute spill could not protect the public from the kind of fire that would result from an LNG tanker accident.

Tankers and terror

In fact, the tankers are considered so vulnerable to terrorism that the Coast Guard banned them from making deliveries in Boston for a month after the Sept. 11, 2001, attacks.

Now, when LNG ships arrive in Boston Harbor making weekly deliveries of LNG, they are escorted by heavily armed Coast Guard ships. Police officers line the banks of the harbor, and a major bridge is closed to all traffic as the ship passes underneath. Authorities fear terrorists might drive a bomb-laden car off the bridge and into the tanker, setting off a fire so large that Boston fire officials say they would have no hope of controlling it.

Despite those concerns, the Federal Energy Regulatory Commission, which controls permits for LNG facilities, appears poised to allow companies to build LNG terminals anywhere that they have enough room to establish the "hazard exclusion zones" based on the 10-minute spill scenarios.

At the newly approved Hackberry LNG terminal near Lake Charles, La., FERC told the company, Cameron LNG, that a 929-foot exclusion zone would be satisfactory.

In recent months, ExxonMobil and State Docks officials told the Register that the Mobile Bay terminal would probably require only a 1,000-foot safety zone to comply with federal regulations.

In written comments to the Register, FERC officials said that large-scale accidents involving LNG ships are simply not considered when determining the hazard exclusion zones for LNG terminals.

No comment

Asked by the Register last week how officials could guarantee public safety in the event of a terrorist attack on an LNG ship at a docking facility, FERC officials responded in writing, "We have no comment."

Markey's office suggested an explanation for why no one has addressed the apparent discrepancy between the 1979 bill's desire to "encourage remote siting" and the way that DOT has interpreted the directive.

"For more than 20 years, the bill's siting provisions haven't actually been used, since no new LNG plants were being built," the Markey staffer said. He explained that until the Hackberry plant was approved this year, no one knew how the bill was being interpreted. "Now that plans are in the works to actually build new LNG facilities, DOT needs to show that they are complying with the congressional preference for remote siting."

If hazard exclusion zones become the tool of choice for complying with the remote siting requirement, Havens said those zones might need to extend a mile or more from the LNG terminal to account for the risks posed by tankers. Such a requirement would make it impractical to site a facility in places such as Mobile County, Fall River, Mass., or Long Beach, Calif. If ship accidents, with their potential for massive, uncontained spills, are included in the regulations, "the consequences of that analysis are going to be the controlling factor in siting a terminal," Havens said. "There is going to be a lot of resistance in the industry because the ship spills are so much bigger."