

Mexican agency warns of potential for LNG disaster

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An accident at the Sempra Energy-Shell liquefied natural gas terminal proposed for Baja California could cause second-degree burns within 20 seconds for anyone within a mile of the project, Mexico's environmental agency has predicted.

The revelation, in court documents obtained this week by *The San Diego Union-Tribune*, comes as a deadly explosion at a liquefaction terminal in Algeria has prompted greater concerns about the safety of numerous LNG projects planned for Baja California, California and elsewhere in the United States.

Monday's blast at the Algerian port of Skikda killed 27 people and injured scores more, according to news reports. The explosion, which was heard miles away and started a fire that took hours to extinguish, was the first accident at an LNG site in nearly 30 years.

A high-pressure boiler in need of maintenance is believed to have caused the accident. The complex, owned and operated by the Algerian government firm Sonatrach, had been renovated by the Halliburton Co. of Texas in recent years. It produced 335,000 barrels of liquefied natural gas per day.

Algeria is the world's second-largest LNG exporter after Indonesia. The country, through Sonatrach, sells the fuel mainly in southern Europe.

"We know now that LNG terminals are not benign, and the LNG industry has been representing them as benign," said Bill Powers, a San Diego environmental engineer who has been working to defeat on-shore projects planned for Baja California and California.

The assessment of the Sempra-Shell Energia Costa Azul project, conducted by Mexico's environmental agency, Semarnat (Secretaria de Medio Ambiente y Recursos Naturales), shows how great the risk could be, Powers said.

According to the agency's analysis, an explosion at the LNG project planned 50 miles south of San Diego at the seaside Costa Azul plateau probably would blow out windows and cause heavy damage to homes and businesses at the adjacent Bajamar resort, Powers said. Anyone on the southern end of the golf course would be severely burned.

"I think Ensenada city and state government officials need to put a hold on the project and consider if it is wise to jeopardize the safety and peace of mind of people who are living and investing in the Bajamar resort," said Roberto Valdes, its developer.

"In Algeria, the explosion caused damage five miles away. Most of the property in Bajamar falls within five miles of the facility proposed by Sempra and Shell."

Sempra Energy spokesman Art Larson said he was not aware of Semarnat's risk analysis and could not comment on it.

"Safety is a top priority of the company and this project," Larson said.

He noted that the Algerian explosion was at a liquefaction facility, which cools natural gas to minus 260 degrees Fahrenheit to produce a liquid that can be shipped in oceangoing tankers. Receiving terminals such as the Sempra-Shell project re-gasify the liquefied natural gas for shipment through pipelines to natural gas consumers.

Sempra also is developing an LNG receiving terminal near Lake Charles, La.

"This one incident shouldn't negate the excellent record the industry has," Larson said.

Still, several industry officials and observers, as well as U.S. energy officials, said the Algerian blast will intensify community worries about the safety of liquefied natural gas.

"For all the LNG proposed projects, it's the same. This affects them negatively," said Kevin Petak, director of energy modeling and forecasting at the Energy and Environmental Analysis consulting firm.

Jeremy Martin, director of the Institute of the Americas energy program, said companies also might have more difficulty obtaining government permits and financing for their projects.

"It's going to be an additional challenge in terms of selling their projects," Martin said.

Only four LNG receiving terminals are now operating in the United States, but dwindling supplies and escalating natural gas prices have rekindled interest in the fuel, used mainly to power electricity plants. LNG is the world's fastest-growing primary energy source.

Companies are contemplating as many as 30 new LNG receiving terminals in the United States. The Federal Energy Regulatory Commission, which grants permits along with the Coast Guard and Office of Pipeline Safety, has six applications pending approval and four in pre-filing status. One of the pending applications is for a terminal at Long Beach Harbor that would be developed by Mitsubishi.

The FERC sent Algerian officials a letter yesterday expressing U.S. condolences, offering assistance and asking to be provided with any reports on the disaster, said J. Mark Robinson, director of the agency's Office of Energy Projects.

Details of what caused the accident still are sketchy, he said. But even though the Algerian blast occurred at a liquefaction plant rather than a re-gasification facility like those proposed in the United States, the agency hopes to learn lessons it can apply to U.S. projects.

"The information can be used to review our programs," Robinson said.

"Safety is this commission's No. 1 concern when it comes to LNG," he said. "We have a pre-project inspection process, during-construction inspection process and post-project inspection process that we think is second to none."

Several companies have been vying to develop LNG terminals in Baja California that would supply natural gas to northern Mexico and Southern California. The competition weeded out some companies and prompted Shell to scrap its proposal and join with Sempra in the Energia Costa Azul project.

Marathon Oil has proposed a large energy complex south of the seaside Playas de Tijuana suburb that includes an LNG terminal.

Spokesman Paul Weeditz said the company has a 34-year record without accidents of sending liquefied natural gas from its liquefaction plant in Alaska to Japan.

Marathon has not yet filed for an environmental permit and is unaware of Sempra's risk analysis indicating the harm an LNG accident might cause to those more than a mile away.

"We believe we've designed a facility that incorporates proven technology and safety measures that would minimize potential risk to workers or the surrounding community," Weeditz said.

Juan Guillermo Lutz, an organizer of a group fighting the Marathon LNG plant, said many Playas de Tijuana residents live within half a mile of the project.

"All these companies have said LNG's not flammable, that it couldn't explode," Lutz said. "But it doesn't appear to be true."

ChevronTexaco has proposed building an LNG terminal six miles off the Baja California coast adjacent to the Coronado Islands.