

Smelly chemical proposed for LNG terminal off coast of Malibu

The chemical would alert officials to any gas leaks from a planned 20-mile-long pipeline that would pump natural gas from a liquefied natural gas ship, proposed for off the coast of Malibu, to Oxnard.

**By Hans Laetz / Special to The Malibu Times
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BHP Billiton officials have told federal officials they plan to use an unpleasant smelling chemical aboard their proposed liquefied natural gas ship in an effort to make any gas leaks detectable by scent.

In documents released last week, Billiton said it now plans to add the sharp smelling chemical to the natural gas before it is pumped from the ship, proposed to be located off the coast of Malibu, into a floating turret-like connection, down 2,300 feet to the ocean floor and then ashore through 20-mile-long twin pipelines to Oxnard.

"Based on advice from regulatory agencies, Billiton has modified the application to provide for an odorant unit located on the FSRU immediately prior to the gas export swivels in the mooring system," the company said in its letter.

FSRU stands for Floating Storage and Regasification Unit, the technical name for the LNG ship that would act as Billiton's floating "Cabrillo Port" gas terminal. The company is seeking state and federal permission to anchor the LNG processing and storage unit 13.8 miles off Leo Carrillo Beach at Malibu's west end.

Billiton spokesman Patrick Cassidy in Houston said he could not specify which agency asked for the change, or whether it could be categorized as a safety measure.

Although the Billiton document does not mention it by name, an industry observer said a chemical called mercaptan has been used for decades to make natural gas, which is odorless in nature, smell bad. The smell of mercaptan is instantly recognizable to anyone who has ever used a gas stove that failed to light.

But critics said transporting, storing and injecting mercaptan on a ship in the open ocean is a difficult matter. Small leaks of the odorant can be detected for miles in windy locales.

Billiton officials said they could not answer why the smelly gas needs to be added to fuel flowing from the floating storage depot toward the shore, but not to the liquefied methane being transferred on rolling seas from tankers to the depot.

Although the changed plans were filed with the U.S. Coast Guard three weeks ago, the Coast Guard released them to the public late Friday. Cassidy said Billiton's engineers could not be

reached Monday to answer specific questions.

The gas-odor change was one of 14 modifications filed by the Australian company, most of them technically oriented.

Billiton said it would accept some residents' complaints and would reroute its proposed underground natural gas pipelines away from Mesa Elementary School near Somis, where officials had objected to the gas lines crossing the school's entrance.

But the exact route for the pipeline relocation was not released by Billiton or the Coast Guard.

"The public still doesn't have any input on the change of the pipeline route," complained Alicia Roessler, an attorney for the Santa Barbara-based Environmental Defense Center.

Billiton also said the length of the permanently-moored LNG ship would be 36 feet longer than originally proposed, a total of 972 feet in length if approved and built. The extra 36 feet would be used for additional insulation between the LNG tanks and onboard machinery, company officials said.

Critics have said placing a series of gas-fired boilers to cook the frozen methane from minus-260 degrees to about 70 degrees has never been done in the tight confines of a ship. Drilling techniques for the underground gas pipelines will be changed to a "recycled mud" system, in which caustic drilling liquid is recycled. Billiton officials say changing the drilling technique will dramatically decrease the chance for accidental ocean pollution.

The U.S. Coast Guard has stopped the clock on the Billiton application process while the company answers more than 120 so called "data gap" questions.

One area of federal concern has been the amount of ammonia, another chemical that can, in small quantities, be smelled for miles, which the ship's LNG boilers would release into the air.

Billiton has not indicated when it will supply answers to the 120-plus questions. But a company spokesman last week stressed that the additional government questions are not unusual, and that the company is making good-faith efforts to do the research to supply answers.

In other LNG news, the state Senate adjourned for the year without voting on an Assembly-passed bill that would have slowed down the LNG licensing process in California. Observers said the measure, which was strongly opposed by Billiton lobbyists, could be revived next year. And, in a major development that could have implications for the Malibu LNG terminal, the California Energy Commission has filed a document detailing numerous dangers to life, petroleum refineries and property associated with a proposed LNG terminal in the heart of the Long Beach Harbor.

The official state response to the Long Beach proposal, obtained by The Malibu Times last week, paints a number of possible hazards presented by the proposed Mitsubishi LNG depot for Terminal Island.

Although the Energy Commission did not come out in opposition to locating the LNG terminal in the middle of Long Beach Harbor, it asked federal officials to consider the possibility that terrorists attacks, earthquakes or some other calamity could pose to oil refineries, port facilities and several hundred thousand people who live near the Long Beach site. Government rejection of the Long Beach LNG site could increase pressure on Gov. Arnold Schwarzenegger to approve the Billiton terminal off Malibu, experts on both sides of the issue have said.