

GUEST

Good morning. Thank you for inviting me here today to speak to you about the liquefied natural gas facility in

SPEAKER:

Boston Harbor. Based on my experience as director of the Boston Harbor Associates, I believe that the risks of this LNG facility are too high and that a new risk assessment is needed to properly evaluate these risks. This morning I'd like to tell you about the problems with the current risk assessment and then provide my recommendations for a new risk assessment going forward.

As you know LNG has a very-- it comes with the possibility of a gas leak, which could lead to a fire and a large explosion. Although this happening is fairly unlikely, the severity of the damages that would happen if it did occur would be extremely large. And risks are greater when LNG is transported through the water. If a spill occurs in water, it would spread more quickly and be more difficult to contain. So we can expect that if a spill did happen in Boston Harbor, it would be very difficult to manage. It would quickly spread to the Harbor Islands and also around the city, and could cause a large explosion that would not only have major damage on infrastructure and property, but also could cause a major loss of human life.

I know that you're all well aware of these risks, but you probably are assuming that the risk assessment that was done when the facility was built-- several decades ago-- accurately takes into account these risks. However, I believe that there are major problems with that risk assessment. First of all, the risk assessment assumes that everything possible to manage these risks is being done. It doesn't leave any possibility for human error or negligence, or any mistakes happening. However, there's very little evaluation to ensure that all of these safety measures are being taken 100% of the time.

There's site visits by the regulatory agency only several times a year, and these are announced ahead of time. So they don't accurately reflect whether the safety measures are being taken day in and day out. We know that human error can lead to major industrial accidents. Just look at the case of Three Mile Island, where the accident was made worse by inadequate training and the plant operators failing to respond to the problem as it was unfolding and making the problem worse. So given that we know that human error and negligence can lead to major accident, I'd like to propose a new risk assessment that takes these into account.

My recommendation for a new risk assessment follows a 2-step process, in which the estimation of risk is separate from the decision making process. So in the first step, the government-- all of your respective agencies-- with input from the public, would determine what level of risk it is willing to accept. For example, is it willing to accept some water pollution permanently? What about property damage? What about loss of life? What level of risk can you, as a society, tolerate?

It's very important that you involve the public in determining the level of risk that you're willing to accept. Not only will this help them feel like they have ownership in the decision that effects their home, but it will also help them think about the likelihood of risk and whether this technology is appropriate. While I'm sure that they're not necessarily scared about the risks, but rather that they understand what might happen with this technology. So after you've determined what level of risk you, as a society, are willing to accept, I would recommend that you hire a group of scientists to conduct the risk assessment itself, and to figure out both the harms from a gas leak that are possible and the likelihood of this occurring.

In addition, it's really important that as part of this risk assessment, you assume that some degree of human error will occur and that safety measures will not be followed all the time. The scientists can estimate this based on accidents at other LNG facilities around the world, and what led to these accidents, and whether or not safety measures were being followed there.

After the risk assessment is completed, the government can look at the results and decide whether it meets the previously set determination of risk that the society is willing to accept. And if it does, to go forward and keep the facility open, and if not, close the facility.

One important thing to note is that if you do decide to keep the facility open, it's very important that there is a mechanism in place for regular monitoring of safety at the plant, and to ensure that all of the safety measures that were assumed and the risk assessment are actually being followed.

Finally, it's very important to compare the alternatives. LNG, natural gas, is a major source of energy, especially for heating, in the Boston area. And if it's found too risky, we need to replace this facility with another source of energy. So whether that comes from natural gas through pipelines, or oil heating, or some kind of renewable energy, all of these energy sources have some kind of risk. So it's important to measure the risks of those as well, and make sure that we're not replacing the LNG with something even riskier.

So to conclude, I believe that the risks of this LNG facility in Boston Harbor are very high, and that the current risk assessment is inadequate. I hope you'll follow my recommendations for a new risk assessment that better takes into account both the dangers of this technology and the level of risk that society is willing to accept. Thank you.