

**LNG Advisory Committee
Acushnet, Massachusetts
Minutes of Meeting
April 12, 2016
6:30
Approved on April 26, 2016**

ATTENDANCE: Chair Chief Kevin Gallagher, William Lima, Jr., Dennis Maltais, Paul Pelletier and John Roy

Chief Gallagher opened the meeting at 6:32.

Chief Gallagher stated that one of their members had not been at the first meeting and he asked that he introduce himself. Mr. Paul Pelletier replied that he was an abutter of the proposed project. He has not made up his mind yet if he is for or against the project. He looks forward to sorting through all the information out there and then making a recommendation as to what direction they should go in this endeavor. Chief Gallagher agreed that he finds that the residents want more information and they want to learn as much as possible about this project. That is the primary goal of this Committee, to get down to those issues that they will need to advance to the Board of Selectmen and for them to then package and send that to the Federal Agencies.

MEETING MINUTES

Mr. Lima made a motion, seconded by Mr. Roy, to accept the Minutes from the March 28, 2016, meeting.

VOTE: Mr. Lima, Mr. Maltais, Mr. Roy, Chief Gallagher – **AYE**
Mr. Pelletier – **ABSTAIN**

MEETING MAIL & UNFINISHED BUSINESS

Chief Gallagher discussed the following items that had been enclosed in the meeting mail:

- The first was a copy of the document used by the DPU when conducting an inspection of an LNG facility. A link was also provided.
- A letter had also been sent to Mr. Richard Wallace requesting a copy of the July 2015 Comprehensive Inspection Report on the existing LNG facility in Acushnet and copies of the most recent Specialized Inspection Reports covering the past ten years.
- There was a request from Ms. Murray, the secretary, to send copies of draft minutes to members prior to a meeting for review. Members were all agreeable to that procedure.
- A copy of the draft agenda with requests for any additional items. There was also a link to the Town's website which included the video from their original meeting.

- Information regarding his contact with the Attorney General's office. This is related to the questions of necessity of more gas in general and the pipeline/storage project in particular. He was reassured that a State entity was actually looking into the necessity of the proposed project.
- A document submitted by the company called ENGIE which runs the Everett import facility and their claim that this project is not needed. They have the capacity to import, to store, to vaporize, and to push out into the pipeline the amount of gas that proponents are saying the region needs.
- The Supplemental Project filing by Access Northeast which includes alternatives to this site.
- The response to Chief Gallagher's letter to Jeffrey Martin, Director of Planning and Siting for Eversource, requesting additional information on the liquefaction process. Mr. Martin also requested that matters that members wanted to discuss on April 26, 2016 be identified in advance.

Chief Gallagher also discussed on-site visits by the Committee to the Acushnet site and the site in Waterbury, Connecticut. Waterbury has the type of construction that would be similar to one of the tanks that is proposed in Acushnet. They also have a liquefaction station. The question had been asked if they could go as a group. Ms. Labonte did advise him that they are allowed under the Open Meeting Law as an Advisory Committee, and one who will not have the final say in what the Town says, to go to the sites as long as they do not deliberate. He thought that a weekend would be better for the Waterbury site as they would have to travel a distance to get there. He noted that the Board of Selectmen did request \$1,500 from the Reserve Fund for the use of this Committee. That would include the stipend for the secretary as well as any other expenses that they may incur.

APPOINTMENTS

Chief Gallagher advised that Mr. Guy Colonna, from the National Fire Protection Association, (NFPA) was present to discuss their role and how it applies in the proposed project. Mr. Colonna stated that he appreciated the time to address the Committee and help them understand what NFPA's role is in their consideration of the request to expand the LNG storage capacity in the Town of Acushnet. Their document NFPA 59A will play a role in that. He was the Division Manager for the Industrial and Chemical Engineering Group. His expertise is in Chemical Engineering. NFPA has about 300 codes and standards. The standards in his department deal with hazardous material and industrial facilities. His team deals with flammable liquids, combustible dust, and various gas applications. The following items were on Mr. Colonna's agenda to be discussed:

- The NFPA standards development process
- The Technical Committee on LNG
- An overview of NFPA 59A
- The NFPA consensus standards, adoption and enforcement of the standards
- Any questions members might have

Mr. Colonna began his presentation with the history of the NFPA. It was founded in 1896 and is now headquartered in Quincy, Massachusetts. They have regional offices throughout North America. Regional Managers and Directors work with State Legislators to promote adoption of the latest addition of their codes and standards. In many instances, they also work at the local level. Many of their documents are used around the world, particularly as there is currently a focus on LNG and having additional items fueled by it, including cruise ships. NFPA has approximately 60,000 members, represented by more than 80 trade and professional organizations.

Mr. Colonna advised that the mission of NFPA is to help save lives through information, knowledge, and passion. Their first standard was the sprinkler standard. That information not only needed to be pulled together but then disseminated to building owners, sprinkler manufacturers, consultants, designers, manufacturers, etc. They still do that today. Their staff and members are devoted to eliminating death, injury, and property and economic loss due to fires, electrical, and other related hazards. Their information and knowledge comes from over 300 codes and standards, research and data analysis, training and certification, public education such as Fire Prevention week, outreach, and advocacy.

Mr. Colonna stated that NFPA is a voluntary consensus standards developing organization (SDO). They follow the protocol of the American National Standards Institute (ANSI). That means they agree to set a certain set of criteria for how they will develop codes and standards. Those criteria include openness, transparency, and lack of dominance. Anyone can attend the meetings and propose changes. They have a number of different, engaged interests, but no group can be dominant over another. Their consensus is they must have at least two thirds majority on any change that goes into their codes or standards. He noted that their documents are revised every five years. Their codes are voluntary so they are not involved in enforcement but rely on the State or local jurisdictions. Their codes are also incorporated into the Federal regulations. He would return to this item as 59A was utilized by several of the Federal Agencies that are involved in siting LNG facilities, land based, as well as, marine based. These standards are developed by committees served by over 5,000 volunteers.

Mr. Colonna said that with today's technology it is easy to go to NFPA's various web pages for each of the documents and see where the committee is in the process. Their home page is located at www.nfpa.org. They can also access the specific code at www.nfpa.org/59A. All their codes are available to view on line.

Mr. Colonna advised that there are a number of resources that support their process. Those resources are applications with statistical data. They have some fire incidents databases that they manage. This information can be used to guide committees with any changes that might need to be made. They look at events, and they have done fire investigations over the years. They also have a Fire Protection Research Foundation. That Foundation is presently involved in collecting incident data related to any kind of LNG related fires. The Foundation can clarify the need for research and establish funding sources from affected stake holders. They facilitate the conduct of the research project and then disseminate the results.

Mr. Colonna went through some of the history of NFPA 59A. The first edition of it was adopted in 1967. A committee on LNG was established separately to develop a much broader scope standard in 1969. Then in 1971, the first edition of NFPA 59A was developed under that broader scope. The purpose of 59A was to provide minimum fire protection, safety, and related requirements for the location, design, construction, security, operation, and maintenance of LNG plants.

Mr. Colonna then explained the scope and what it applies to, and what it does not apply to. The scope applies to facilities that liquefy natural gas, and facilities that store, vaporize, transfer, and handle LNG. It applies to training of all personnel involved with LNG. It also applies to the design, location, construction, maintenance, and operation of all LNG facilities. Mr. Colonna noted that it does not apply to frozen ground containers, portable storage containers stored or used in buildings, or LNG vehicular applications, including the fueling of LNG vehicles.

Mr. Colonna advised that one of the important aspects is that NFPA codes and standards are intended to not be applied retroactively. The provisions of the standards do not apply to facilities, equipment, structures, or installations existing or approved prior to the effective date of the standard, unless it is otherwise specified. Some of their committees go through and selectively establish retroactive provisions for certain features. The AHJ (Authorities having jurisdiction) may apply the standard retroactively if the existing situation presents an unacceptable degree of risk. The retroactive requirements can be modified if their application is impractical.

Regarding equivalency, Mr. Colonna said that the standard does not prevent the use of systems, methods, or devices of equivalent or superior quality, strength, etc. over those prescribed by the standard. Technical documentation is required to demonstrate that equivalency and it still must be approved by the AHJ.

Mr. Colonna then discussed the chapters in NFPA 59A. Chapter 1 is the Administrative section. It includes the retroactivity, equivalency, scope, and applications information. Chapter 2 is the reference publications. Chapter 3 is definitions. Chapter 4 is the general requirements or fundamental elements. Chapter 5 is the plant siting and layout. It includes the prescriptive set of requirements that would apply to any facility that must comply with NFPA 59A. Chapter 15 is an alternative to following Chapter 5. This says that you are going to do a risk based, performance based analysis. It is allowing you from a siting standpoint to demonstrate through analysis that you have achieved the same outcome of the prescriptive requirement of Chapter 5.

Chief Gallagher then said as he understood it the importance of each NFPA chapter being a stand alone chapter is it has shall language or there is “no wiggle room”. Mr. Colonna replied that NFPA has four types of documents; codes-what you have to do; standards-how to do it. These have shall language. There are also two non-mandatory documents; recommended practices and guides. These have should language. Codes and standards use the word shall and which means they are intended to be mandatory. Chief Gallagher then asked what the difference was for a section in the annex. Mr. Colonna replied that the annex was not mandatory.

Mr. Colonna advised that Chapter 4 was General Requirements. It applies to all facilities covered by 59A. It includes basic requirements for corrosion control, control centers, sources of power, records, the presence of noncombustible materials in the area, and ignition source control. Chapter 5 refers to Plant Siting and Layout. It provides the criteria for plant and equipment siting. It includes requirements for spacing for containers, vaporizers, process equipment, loading and unloading facilities. It also looks at design, capacity, and the siting of secondary containment and impounding areas, and environmental concerns such as ice and snow and impacts from those factors. Chapter 5 also includes provisions for building and structure design classifications, concrete design, materials, and reinforcement, and portable facilities.

Chief Gallagher noted that the plant siting would be one of the most important initial decisions if the project was approved, and he believed the proponents would have to demonstrate to FERC that the siting had met certain criteria. Mr. Colonna said that was correct. Chief Gallagher stated that by siting they were referring to the actual placement of the tanks within the property. His understanding of the prescriptive Chapter 5 was there were two significant tests that are used vapor dispersion and heat dispersion. He explained it as blocking off the top of the tank and exposing the contents to the ambient air and then lighting it on fire. The code says that the heat that leaves the property must be at a certain level. The tank is then moved around until you achieve that temperature. The other standard is a release that would generate a vapor cloud. Chapter 5 specifically says that the concentration is at the distance where it is 50% of the lower flammable level (LFL). Mr. Colonna advised they are looking at where that cloud goes down wind and at the point where you are still at 50% of the LFL. Chief Gallagher stated that if you achieved that thermal radiant trigger in this prescriptive manner then you are good to go as far as building. Mr. Colonna said that was correct, and it looks at the outcomes of a release. One is a cloud that does not ignite and the other is it ignites quickly and you are looking at that thermal incident to the surrounding area.

Mr. Lima asked if the volume of the LNG factored into that. Mr. Colonna replied after evaporation the vapor cloud would still have to form. The warming of the LNG takes a bit depending on the atmospheric conditions so the volume is not the most important factor, but the warming of the LNG and it mixing to the right concentration. Chief Gallagher then clarified that the requirement is when the heat in the fire scenario gets to the property line it is at tolerable levels, and when the vapor cloud hits the end of the property line it is 50% below ignition.

Mr. Colonna then discussed Chapter 12 which is Fire Protection, Safety, and Security. It covers the equipment and procedures designed to minimize the consequences of releases. It provides basic plant security provisions. Chief Gallagher asked Mr. Colonna to comment on a 1977 study that had indicated a potential of 70,000 casualties from an accident at an LNG off shore facility with a 30 mile radius damage area. Chief Gallagher noted that at an off shore facility there would be no boundaries to hold the LNG in a confinement area. He asked if this 30 mile cloud would be feasible in a land based facility that had followed siting requirements in Chapter 5. Mr. Colonna said based on models that had been developed and improved, that kind of distance wasn't anything that he had ever seen.

Some other items covered under Chapter 12 are fire protection which must be provided. The extent is determined by evaluation of individual facilities. There must be an Emergency Shutdown System (ESD) at any LNG facility. Chapter 12 also includes requirements for gas, fire, and leak detection, fire protection water equipment, and for extinguishing equipment if the analysis determines they are necessary. Finally, it also includes requirements for personnel safety and security.

Mr. Colonna advised Chapter 14 was related to Operating, Maintenance, and Personnel Training. It provides for the minimum requirements relating to safety during the operation and maintenance of LNG plants. All facilities must have up-to-date operating procedures and a maintenance manual. It also includes requirements for emergency procedures, monitoring operations, transfer of LNG and flammables, maintenance of components, personnel training, and record keeping.

Mr. Colonna stated that Chapter 15 was the Performance, Risk Assessment, Based LNG Plant Siting. This is the alternative approach to the siting requirements in Chapter 5. It includes the calculation of risks to persons outside the boundary of the LNG plant from releases. Documentation from these calculations is required, and must be approved by the AHJ. Chief Gallagher said that he understood that where Chapter 5 looked only at risks within the boundary of the property lines, Chapter 15 allows for the expansion of that into the local neighborhood. Mr. Colonna said that was correct. Chief Gallagher said that in addition, it was stated that the risk calculated shall be compared with values of risk to which the population in the general vicinity of the proposed or existing plant may be subject to due to natural causes, or from other human activities. Chief Gallagher asked if they could assume if Chapter 15 were used, included in human activities would be the dangers posed by terrorism. Mr. Colonna replied that there is a reference in the Annex to the Department of Homeland Security's Chemical Facility Anti-terrorism Safety and Security (CFATS). That reference means if I am a proponent and I am doing this analysis, part of that would be what kind of security I am ensuring so that my facility is not compromised from that risk scenario.

Mr. Lima asked if the risk assessments took into consideration a complete spill within the boundary. Mr. Colonna replied that there are a number of tables that give the probability of failure and different types of scenarios. In doing analysis, he could pick which of the failure modes he wanted to look at as the basis for his risk assessment. Mr. Lima asked how those probabilities were determined. Mr. Colonna said it was in a variety of ways. They are looking at enhancing that probability data but a lot of it is historical.

Mr. Colonna advised he wanted to discuss how NFPA comes into play. Adoption can be at the Federal level. NFPA 59A is incorporated by reference into US DOT/PHMSA regulations at 49 CFR Parts 191 and 193. At the current time, it is the 2001 and 2006 editions. There is conversation about them updating to a more recent edition. Chief Gallagher asked when Chapter 15 was part of these two codes. Mr. Colonna replied it was part of Annex E in 2006, so not mandatory. Chief Gallagher stated so there was no Federal requirement that has proponents do an alternative to Chapter 5. Mr. Colonna said not at the current time. Chief Gallagher noted that because the Federal Government had not adopted multiple revisions of NFPA 59A Acushnet was limited to the Chapter 5 risk based analysis from a regulatory requirement. Mr. Colonna said that was correct.

However, adoption can also be at the State level. Massachusetts has adopted the NFPA 1 which is the 2012 edition. This edition incorporates by reference into 69.8, which is on Gas and LNG facilities. This edition adopts the 2009 edition which still has Chapter 15 as Annex E. The AHJ still has the ability, through retroactivity, to decide if a distinct hazard exists and to incorporate provisions that are different. The NFPA definition of AHJ is very broad and could be the State Fire Marshall or local jurisdiction officials.

Chief Gallagher asked what Mr. Colonna would consider the Gold Standard on risk assessment on siting. Mr. Colonna responded that Chapter 5 is more specific to explicit things. Chapter 15 is dependent on how I choose my probabilities. As long as it is felt that those probabilities are representative of what might really be experienced, then the QRA is the stronger approach because it is more rigorous. Chief Gallagher asked if the proponents could do both. Mr. Colonna said there is nothing stopping them from that. Chief Gallagher noted that the ultimate purpose of the risk assessment is not only where the tanks would meet all the criteria but also what mitigation factors might be required or requested in order to mitigate the risks that are found.

Chief Gallagher advised that the presentation had been very informative. Committee members had no additional questions. Chief Gallagher asked Mr. Colonna if they could follow up with him via email if they had additional questions. He said that would be fine, and he would also send copies of NFPA 59 the 2016 edition.

Chief Gallagher advised that the next appointment of the evening was with Mr. Norman Seymour who was the Director of the Flammable Gas and Alternative Fuels Program at the Massachusetts Firefighting Academy (MFA). He was also a member of the Hopkinton Fire Department. Chief Gallagher noted that Hopkinton also had an LNG peak shaving facility which included the liquefaction process.

Mr. Seymour advised that their role at the Fire Academy is to train industry personnel and fire service personnel in handling releases and fires involving flammable gases, in this case, LNG. They are fortunate to have the facility they have and because of the relations they have with a couple of very large gas associations, they have the ability to release the materials, set it on fire, and extinguish it. This gives them a lot of real experience.

Mr. Seymour stated that he has been a member of the fire services since 1987. They do have a peak shaving plant in Hopkinton with two pipelines that come into town. About this time of year, they will start taking the gas off the pipeline when the demand goes down. They then liquefy it and put it into the storage tanks. Much of what comes into the Acushnet facility originates from Hopkinton. The facility has a capacity of 36 million gallons and opened up in 1971. They have not had any significant issues there in his tenure. He has been with the MFA since 1992 and with the Gas Program since 1994. He took over as the Coordinator in 2007. People that work at these facilities come to them for training. He noted that he was also a member of the State Hazmat Response Team.

Mr. Seymour started with the history of LNG. He advised that LNG has been around since 1912 when it was first commercially used in West Virginia. It was first transported by ship in 1959. In the seventies, there was a building boom of facilities and they started

to import a lot of LNG to help with energy needs, and one of those facilities was at Everett, Massachusetts. With the exception of Distrigas, most of those facilities are now going through the process of trying to become an exporting facility due to the abundance of natural gas in this country. There are about 100 LNG storage facilities in the United States. They are seeing a lot more commercial applications for LNG. It is also an alternative fuel for trucking fleets and marine operations.

Mr. Seymour advised that it is all natural gas, and people don't always understand that. They have taken that natural gas that might be in the street and changed the vapor to a liquid for storage. It is an economical way to store and move energy. Mr. Seymour explained that natural gas is mostly methane. In its natural state it is colorless, odorless, and it is a natural thing that happens when things decompose.

Mr. Seymour stated that they concentrate on things from a first responder perspective. If there is a release what is it going to do, how is it going to act, and what can they do about it. They want to remember that it is not toxic, but it will eliminate the oxygen in a space. Although you can become unconscious, they can improve your condition by removing you from that environment. It is odorless and mercaptan is added so they can determine if there is a problem. It has a flammable range of 5-15%, which is at the lower end of the scale.

Mr. Seymour said when they talk about vapor density, which is important for emergency response; they want to know if there is a release, where is it going to go. The only way they can tell where these vapors are is with a combustible gas indicator, but if you don't put it in the right place it's not going to tell you anything. Vapor density is a way of comparing a vapor to air. Air has a value of 1 and methane has a value of .5, half the density of air. Mr. Seymour stated that the Federal standard for the odorant that is added requires that you be able to smell it at 20% of the LEL or 1% in air. He noted that if you get exposed to it for as few as five minutes, it affects your sense of smell. Massachusetts does exceed that standard.

Mr. Seymour advised that LNG is 97% methane, 3% ethane, and has trace quantities of propane and butane. It is produced by cooling the natural gas. They do not spend a lot of time with the firefighters dealing with the liquefaction process because they are not all exactly the same. If you have one in your community, you have to be familiar with the materials that are used there because sometimes those can be hazardous. The liquid itself is colorless and odorless. You cannot odorize LNG so you will not smell it if it gets out. It is non-toxic but it will displace oxygen.

Mr. Seymour then discussed specific gravity which refers to a material's density when compared to water. Water has a value of 1.0. Anything with a specific gravity less than 1.0 will float and anything with a specific gravity greater than 1.0 will sink in water. LNG has a specific gravity less than half of water. In theory, it wants to float but when it comes in contact with water, it absorbs the heat from the water and turns back to a vapor. LNG weighs 3.5 pounds per gallon compared to water which weighs 8.3 pounds per gallon. It is not soluble in water but if it did it would go back into a vapor so it doesn't become an issue. Mr. Seymour then spoke again about vapor density. He advised that when LNG is -260°F it is heavier than air, but at -170°F it is lighter than air. That is

important to the person holding that combustible gas indicator as the closer you get to the release, the closer to the ground the meter needs to be to detect the vapors. Mr. Seymour explained that the expansion rate is 600 to 1. That means every cubic foot of liquid will create 600 cubic feet of vapor. There is not a more efficient way to store and move energy.

Mr. Seymour also discussed the fire characteristics of LNG. Its flammable range was 5-15% and its ignition temperature was 1,000-1,200 degrees. The flame spread is 300-400 feet per minute. He described it as a slow and rolling effect. He explained that the white cloud in the photograph was actually moisture in the air. The cold vapors coming into contact with that moisture. The vapors are not visible so you have to have that combustible gas indicator to identify where the vapors are but it gives them an idea of where they need to deploy their equipment.

Regarding storage pressures, large capacity vertical tanks are typically .5 to 1.0 psi. Chief Gallagher clarified that there were no mechanical means to pressurize the tanks. That comes from the pressure built up by the boil off. Mr. Seymour said that was correct. There are other small vertical tanks and those operate between 60 and 70 psi. Normal over the road pressure in a transporter is 8 to 10 psi.

Mr. Seymour advised members of the BTU comparisons which was the energy that they actually got off the fuel. LNG was 75,000 per gallon, Propane was 84,300 per gallon, and gasoline, depending on the blend, was around 112,000 per gallon. Mr. Seymour stated that some of the specific hazards they would be concerned with from an emergency responder perspective were that flammable range, it is explosive in a confined space, it is an asphyxiant, and it is a very severe cryogenic. Mr. Seymour then discussed how various types of weather would impact a spill. He noted that they do have a lot of experience dumping this stuff on the ground and pushing it around. They have done this in all kinds of conditions such as sunny days, dry days, rainy days, snowy days, etc. From a firefighters standpoint one of the things they have learned over the years is that it is incredibly predictable.

Mr. Colonna then discussed tests that he had been a part of in the desert. They would get high winds, and they were looking for the vapor dispersion characteristics. They would look for the more stable cloud, so they could collect data they wanted to put with the model. If you have a strong wind with a release, it is going to push that cloud further before you get enough heat in it that it starts to rise so that distance is going to be greater that its traveled before you start getting enough buoyancy that occurs. However, with that strong wind you are dispersing it, and when it does start to evaporate you don't have that high concentration. Mr. Pelletier asked how the wooded landscape would affect the forward progression. Mr. Colonna replied that trees are actually turbulence and would disperse the cloud. Grass, bushes, or even equipment would provide turbulence and disturb the cloud so instead of having a nicely formed cloud, it would be torn apart and you end up with smaller pockets where that liquid might turn into a gas at the right concentration. Those are factors that generally favor the dissipation of a cloud and the reduction of a hazard.

Mr. Seymour stated that they do not use water to extinguish a fire as that just adds heat and makes the fire bigger, they use dry chemicals. It interrupts the chemical chain reaction and puts the fire out. Anytime they deal with a flammable or combustible, the best way to put the fire out is to shut off the supply.

Mr. Seymour also discussed the road transportation of LNG. There are some distinct features of an LNG transporter. The first is the size of it. It is very large as it is a tank within a tank, and also the 8.3 pounds per gallon allows them to carry a little bit more. Mr. Seymour noted that the LNG trucking industry actually has an emergency response plan and they help them test it periodically. Changes have been made to the plan because of the drills they have done. There are pressure building coils under the belly of the tank used when the LNG is unloaded. Mr. Seymour then described the construction of the tank. It is a double shelled container. The outer shell is made of 1 inch carbon steel, and the inner shell is made of ½ inch high strength aluminum. There is a space between them which contains an insulating medium and it is placed under a vacuum.

Mr. Seymour talked a little about where we would be finding LNG next. There are portable vaporizers that have become an important part of LNG transport. They can be used to supplement gas supply to customers while plants are off line. LNG would be off loaded from the transporter to the vaporizer where it would be converted to natural gas. The gas would be odorized before being put into the gas main. In the northeast, LNG is being used as an alternative to Propane. LNG storage tanks are being connected to portable/fixed vaporizers and odorant stations. Chief Gallagher clarified that there would be a requirement for these storage tanks, in case of a rupture or release, that there be an impoundment area that is designed to capture 100% of the volume of the container plus a little bit more. Mr. Seymour replied it is usually 110%. If there are multiple tanks, the containment would be designed for 110% of the largest tank.

Mr. Lima asked if they would be able to contain a 36,000 gallon or a major spill at the Hopkinton Site. Mr. Seymour responded that it was a large containment area. It was obviously built for more than one tank, but most of the time what they have there are multiple smaller containment areas. Chief Gallagher noted that at the current facility, the two tanks each sit inside of a bermed in area that would capture 110% of the product if it were released, but that is because it is a single wall container. The second area of containment is that berm. What is proposed is a dual wall or the metal container and then the concrete insulation. The standard allows for that to be the berm. There are other risk mitigations that may come into play such as a tertiary containment which would be the berm.

Mr. Lima asked if there were any homes in close proximity to the site. Mr. Seymour responded that there is a very large development going in immediately adjacent to the site. It was for 700 homes in the upper part of the land near the plant, and 400 homes on the lower side of Route 135. Chief Gallagher asked Mr. Seymour if they would be considered abutters. Mr. Seymour replied absolutely, and these were also considered high end homes.

Mr. Lima said that there are concerns about toxic emissions from benzene, toluene, and xylene (BTX). Could he speak to that? Mr. Colonna replied that when you are

producing crude oil you may get either oil or gas. When you get crude oil, three of the most common ingredients in it are BTX. All three are very common solvents. Those things are not soluble in gases. You will not find any of those solvent based materials that you would find in crude. It would be a concern in an oil based application, but he has never been aware of it in any gas application.

Chief Gallagher asked Mr. Seymour to comment on restrictions of who can drive down the public way in between the storage tanks on one side, and the machinery on the other side. Mr. Seymour said there was not. The only restrictions, in regard to the facility, are there are set times when the LNG trucks can be on the road and there is a set route that the trucks can take. They are not allowed to be on the road anytime the school buses are on the road. Chief Gallagher noted again that the Hopkinton facility was split by a road that allows public access with no restrictions. He asked how the LNG was moved from one side to the other. Mr. Seymour replied that there were insulated pipes underground that go from the liquefaction process to the tanks. Chief Gallagher stated that it appeared that their experiences were the same. They have had no fire based incidents at the plants nor any spill based incidents. They also saw a response to 9/11 with additional fences, gates, and security systems. The difference is Hopkinton has a liquefaction process and there is a public way under which there is a piping that carries LNG.

Chief Gallagher asked if there would be additional security measures in place on Monday, the day of the Boston Marathon. Mr. Seymour said there was nothing that they do but the plant might bring in additional security personnel for monitoring. Mr. Lima noted that the Hopkinton facility was built in 1971. Does it follow the standards from that time? Mr. Seymour said they are currently in the process of trying to upgrade the liquefaction process. Mr. Lima asked if the facility met the current standards. Mr. Seymour could not speak to that but knew that it met the standards when it was constructed. He could say that in the fifteen years that he has been dealing with the plant, the only incident there has been was a leak in the pipeline outside the fence. Mr. Lima asked what the emergency plan would be if they had complete spillage of the contents of a tank due to a rupture. Mr. Seymour replied they have high expansion foam systems on site, but it would depend where in the containment area the spill was. There are two access roads so they would come up the upwind side, and then they would begin metering. He would anticipate that you would walk that fence line, and probably not get a hit on the meter because that has been their experience. Weather conditions would have an impact.

Chief Gallagher asked if there were any last questions before they finished with their agenda items. There were none. He thanked Mr. Seymour for his presentation and all the information he had provided. Chief Gallagher advised that their next meeting was on April 26, 2016. They will meet with the proponents of the project. This will be designed as a question and answer session. He felt that they did not need to take the time to go through the PowerPoint on why this project is necessary. He would like to use that time as wisely as possible. Mr. Martin from Eversource, the Siting Manager, will come prepared to discuss liquefaction. He has asked if there are any other items they would like to discuss. Chief Gallagher said he would like to forward this to Mr. Martin so that they could get answers that night. The following were some of those questions:

- Which risk assessment tool are they using, Chapter 5 or Chapter 15?
- What are the alternatives to Acushnet?
- What were the reasons the site in Rhode Island was dismissed?
- Is this project a prelude to an exporting facility?
- A response to the letter from Distrigas that said they were able to meet the area's needs.

Chief Gallagher then asked if anyone from the public would like to comment. No one spoke. Chief Gallagher advised that he was starting to prepare the meeting scheduled for May 10, 2016. He stated that one of the issues they had wanted to discuss was security. He was trying to arrange for some security experts to come down and talk about how facilities like this are secured. He also wanted to ask if they would be open to extending a blanket invitation to other Town Departments, Boards, and Committees that may have questions and or concerns to attend that meeting.

Chief Gallagher advised that tentatively FERC would be in Town on April 28, 2016, for a scoping session. The plan is for them to be at the Ford Middle School. They will explain that they are there to take public comment that will then become part of the permanent record. It has been expressed to him that these FERC representatives will make time prior to that meeting to meet with this Committee. They would meet with them at approximately 3:00 P.M., and at least three members would be needed for a quorum.

Mr. Roy said that a question he would have would be the effect on property values. Mr. Pelletier said that he had spoken to one realtor and, in his opinion, values would increase as the revenue coming in would reduce the tax rate. He felt that they should get opinions from additional realtors. Chief Gallagher stated that he knew that the Board of Selectmen had asked the Principal Assessor to study this issue. She was agreeable to coming in for that meeting but would want to first share her data with the Board of Selectmen. Chief Gallagher would recommend that she speak to her counterparts in Hopkinton to see how that facility has affected values. He also suggested contacting Fairhaven to see how the properties next to the wind turbines were affected. Chief Gallagher then advised that there is a FERC document on line where an expansion of a facility in Maryland was approved. One of the sections in that document is a half paragraph response on property values which said that opponents did not provide sufficient documentation to say that the approval would have a harmful affect on property values. He would ask FERC officials what was not provided that would justify such a minimal response from them.

Chief Gallagher suggested taking a ride to Hopkinton and driving through that neighborhood and speaking with people. He noted that when he had gone to Waterbury they had brought in fire officials, police officials, and other town representatives to discuss how this facility had impacted their Department and Town. Maybe something like that could also be arranged. Mr. Lima advised that he would be sending his list of recommended questions for the next meeting to Chief Gallagher and the entire group by tomorrow. Chief Gallagher said he would take any questions or concerns he received via email and put together a draft letter and then circulate it for their review. When he got the okay from them, he would then send it off.

Mr. Lima then asked how the size of the facility in Hopkinton compared to the proposed facility. Chief Gallagher replied the proposed facility was significantly larger. These tanks would be 165 feet high by 265 feet in diameter. At Waterbury, they would see the same type of construction, but it would be smaller. He noted that the tanks had also been reduced by 10 feet. They might want to ask Mr. Martin why the tank size had been reduced. Mr. Lima would also ask the question why so big? Chief Gallagher said that tomorrow he would circulate the letter from Distrigas that states that this whole project is not needed as they can meet the capacity. If they say the capacity is there and they still want to construct these two mammoth tanks, why is there such a disconnect between what Access Northeast is claiming is needed and what Distrigas is saying they can provide.

Mr. Roy then made the motion, seconded by Mr. Pelletier, to adjourn the meeting.

VOTE – UNANIMOUS

9:52 – MEETING ADJOURNED.

THE NEXT MEETING IS TO BE HELD ON APRIL 26, 2016, AT 6:30.

Respectfully submitted,

Cathy Murray