STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
ENERGY FACILITY SITING BOARD

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| In re: The Narragansett Electric | : | |
| Company d/b/a National Grid | : | Docket No. SB-2020-XX |
| Petition for Declaratory Order Regarding | : | |
| Portable LNG Vaporization Equipment | : | |

# Petition for Declaratory Order by The Narragansett Electric Company d/b/a National Grid


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## INTRODUCTION

In accordance with R.I. Gen. Laws § 42-35-8, The Narragansett Electric Company d/b/a National Grid (the "Company") hereby petitions the Rhode Island Energy Facility Siting Board ("EFSB") for a declaration that the temporary installation and operation of portable liquefied natural gas ("LNG") vaporization equipment ("Equipment") is not subject to the jurisdiction of the EFSB. It is the Company's position that the Equipment is not a "major energy facility" as defined by the Energy Facility Siting Act, R.I. Gen. Laws § 42-98-3(d) (the "Act"), and Rule 1.3(16) of the EFSB's Rules of Practice and Procedure, nor is it an alteration to an existing major energy facility for the reasons stated herein.

First, the Act was intended to ensure that major energy facilities are evaluated in terms of long-term impacts and constructed only when justified by long-term regional energy need forecasts. These concerns are irrelevant to the Equipment, which is used as a temporary solution. The Equipment is required only as a seasonal backup to the natural gas supply ("Project") pending a long-term solution to meet forecasted supply needs on Aquidneck Island. The Equipment does not permanently extend or add to the existing natural gas system; it merely serves as a natural gas supply to ensure that current levels of reliability are maintained. Second, treating the Equipment as a "major energy facility" would frustrate the Act's purpose to maintain a reliable supply of energy to Rhode Island residents. The Equipment is the only viable response that can ensure reliability of the natural gas supply to Aquidneck Island customers on a temporary basis until implementation of a long-term solution; it would cease to be viable if prior approval from the EFSB is required. Third, although state regulatory bodies have been aware of the historical use of the Equipment in Rhode Island, the Company could not find a single instance where the Equipment was subject to EFSB siting review and approval. Lastly, Rhode Island law prohibits statutes from

being interpreted in a manner that would frustrate the intent of the law or lead to an absurd result. The Company submits that given all the factors discussed here, requiring full EFSB permitting for the Equipment would effectively eliminate its efficacy as a tool to respond to emergency situations – an absurd result that is contrary to the purpose of the Act.

The ability to set up the Equipment as a temporary remedy to natural gas supply issues, is essential for a natural gas distribution company to maintain system reliability for its customers. Before the Company can install the Equipment at a given property it must analyze the site and certain criteria must be met including site control, proximity to the existing gas infrastructure, and an ability to transport fuel to the site. In support of the Company's arguments within this Petition requesting a finding that such Equipment is not subject to the EFSB's jurisdiction, the Company is detailing the efforts used to install the Project at Old Mill Lane, specifically, as an example of what is required to locate and operate such Equipment. Although the Company projects that the issues currently requiring a backup to the natural gas supply to Aquidneck Island will be resolved by a long-term solution, the use of the Equipment will continue to be a tool that the Company needs to rapidly respond to, and/or prevent, emergency situations going forward. In addition, the Project is needed to serve in its current role until the long-term solution is in place.

## A. Overview of the Property and the Project

### 1. Property Location

The Equipment was recently mobilized in the 2019/2020 winter season on a five-acre (217,800 square feet) parcel located on Old Mill Lane in Portsmouth, Rhode Island (the "Property"). Attached as Exhibit A is an aerial photo of the Property. The Project occupies only approximately 3,000 square feet of the Property. The Property is owned in fee by the Company and is located adjacent to where the distribution system connects to the transmission line that

supplies Aquidneck Island. The Property also is the former propane tank site that provided peaking capability for the Aquidneck Island natural gas distribution system until Providence Gas expanded its pipeline supply capability on the Algonquin pipeline in the late 1980's. The propane tanks were removed from the site in 2014 and the site was vacant until the spring of 2018.

2. Project Need

The Company identified the Equipment installation at the Property as the most effective and feasible solution to temporarily back up the distribution system during the winter season when new transmission system constraints could impact the natural gas supply to Aquidneck Island. In 2019, the Company was informed by Algonquin Gas Transmission, LLC ("AGT"), the owner of the transmission line, of transmission system constraints which are described in the Company's 2019 Gas Cost Recovery Filing with the Rhode Island Public Utilities Commission, Docket No. 4963 ("Supply Constraints"). The Company is working on a long-term solution to address the Supply Constraints and the Project is needed for backup purposes until the long-term solution is in place.

3. Project Description

As noted in the Company's Petition for Waiver dated October 24, 2019, the Equipment installation at Old Mill Lane is designed to supply natural gas to the Aquidneck Island distribution system in the event of any interruption of the transmission line supply.[1] The equipment required to do this includes portable vaporizers, portable booster pumps, portable storage tanks, portable generation, a portable odorizer system, and a mobile office. A map of the recent winter 2019/2020 setup is attached as Exhibit B. The site is secured by the existing permanent fence and gate along Old Mill Lane and temporary fence around the perimeter of the Property. *See* Exhibit C. The

[1] Such interruptions also would include scheduled transmission line inspections and repairs during which the Equipment would serve as a backup to the natural gas supply.

permanent and temporary chain link fences are eight (8) feet tall. Once the Equipment is delivered to the Property, a private security guard is always present. Additionally, when the Equipment is operational,[2] there is always at least one National Grid employee and a private security officer present on the Property. Moreover, one or more representatives of the owner of the vaporization equipment (Stabilis) also is scheduled to be onsite whenever equipment is in use.

In response to the Supply Constraints, on October 28, 2019, the Company began setting up the Equipment with the goal of having it in service at the Property from December 1st to April 1st. Setup began with clearing of vegetation, installation of composite mats that provide a stable work surface, and installation of the temporary fence around the perimeter of the Property. *See* Exhibit C. Once the initial setup was complete, the Equipment was delivered (in mid-November), together with an office trailer, portable lavatory, and portable diesel-powered redundant generator. *See* Exhibit D. The Equipment was fully operational on December 1, 2019. During the Winter 2019/2020 season, the Company did not have to operate the Equipment to supplement the supply from the transmission line. The site was taken out of service on April 1 and demobilization was completed on April 23, 2020. Once the Equipment and temporary fencing are removed from the Property, the area is reseeded, and the site is allowed to return to a natural state. *See* Exhibit E.

As noted, the use of the Equipment at the Property is temporary. The only permanent improvements to the Property are the fencing along Old Mill Lane, bushes along the fence line, a gas riser and manifold secured by a fence, and the lights installed on utility poles. The Company is looking into adding a transformer to the Property, which will allow the local distribution system to supply baseload electric power for the equipment and eliminate the use of a baseload portable electric generator. All other equipment associated with the Equipment's installation is delivered to

[2] "Operational" means that the Project will be fueled and ready to immediately respond to a loss of service from the transmission system.

the site at the start of mobilization and removed from the Property upon de-mobilization at the end of the winter season.

**B. Use of Old Mill Lane for Mobile LNG Facility**

1. Spring 2018 Mobilization

The Equipment was first used on the Property in the Spring of 2018 as a backup to the distribution system during the scheduled inspection of the interstate transmission pipeline that supplies Aquidneck Island (the "Spring 2018 Mobilization"). AGT notified the Company in February 2018 that it needed to conduct operation and maintenance (O&M) work on the supply line to Aquidneck Island between April 30th and May 1st. The Company requested that AGT push the scheduled O&M work to May 31st through June 1st to provide additional time for the Company to develop a contingency operation to maintain reliable service on the distribution system in the event AGT's inspection activities impacted the supply to the island. AGT agreed to a one-month extension. After reviewing its options, the Company concluded that it needed to operate the Equipment at Old Mill Lane as a backup to the natural gas supply in the event the inspection process impeded the supply to the island. During previous AGT inspections of the pipeline supplying Aquidneck Island, the Company used the LNG Transfer Station at the Newport Naval Base ("Naval Station") as a backup to the distribution system but, for reasons discussed in greater detail below, that location was not a viable option. The Property was mobilized in May, and the Equipment was removed in June after the pipeline inspection was complete. Once the Equipment was removed, the Property was restored and left vacant.

Based on the historic treatment of such facilities, the Company had a good faith view that operating the Equipment as a temporary backup to the natural gas supply that was needed to address and/or avoid a potential emergency did not require review or approval from the EFSB.

Neither the Company nor its predecessors have ever obtained EFSB permitting for mobile LNG facilities in Rhode Island. Notwithstanding, the Company still connected with state and local authorities prior to the Spring 2018 Mobilization, which included providing a high-level description of the Project to the Portsmouth and Middletown authorities. The Company also engaged in outreach with all interested stakeholders and notified state regulators. The Rhode Island Division of Public Utilities and Carriers ("Division") was informed of the Spring 2018 Mobilization and visited the Property both before and after mobilization. The use of the Property for operating the Equipment did not require any zoning relief, but the Company received a zoning certificate for the use of the Property for LNG purposes. The community outreach included providing letters to abutters of the Property, presenting the details of the Equipment installation to the Portsmouth Town Council, holding an Open House at the Portsmouth Town Hall, conducting tours of the site with the Portsmouth Fire Department, coordinating the routing of deliveries with local and state officials, and meeting with the Portsmouth Department of Public Works, Town Administrator, Solicitor, and Fire and Police Chiefs to review the detailed and finalized Equipment installation plan. On June 6, 2019, the Company held a site visit at the Property for the Division and the Office of Energy Resources (OER) staff. In addition, between June and October 2019 the Company attended and/or held three meetings with Portsmouth, Middletown and Newport Municipal Administrators and Officials regarding the Project. The Company also maintained communication during the operation and removal of the Equipment for various matters including maintenance, landscaping, fencing and removal.

2. Winter 2019 Mobilization

In January 2019, there was a service interruption on the Aquidneck Island gas distribution system caused by low-pressure transmission supply from the Company's natural gas supplier. In

response, the Equipment was mobilized to supply natural gas to Aquidneck Island residents ("Winter 2019 Mobilization"). At that time, and for the same reasons described below, the Company once again had a good faith view that operating the Equipment as a temporary backup to the natural gas supply to address emerging circumstances did not qualify as a major energy facility pursuant to the Act. Similar to the prior Spring 2018 Mobilization, the Company maintained communication with the towns throughout the Winter 2019 Mobilization. The Company began mobilizing that Equipment on January 21, 2019 and maintained it through April 1, 2019, at which time the Equipment was removed, and the Property was again restored.

3. 2019 Supply Constraints Response

In January 2019, the Company was informed of certain ongoing transmission system Supply Constraints to Aquidneck Island that would reoccur for the foreseeable future, as summarized in RIPUC Docket No. 4963. The Company immediately began working on a long-term solution to the gas Supply Constraints. Because any such long-term solution would take time to develop and implement, it was apparent to the Company that it needed a shorter-term, temporary, interim plan. Doing nothing was not a viable option due to the need to ensure system reliability on Aquidneck Island. The Company ultimately concluded that the Equipment was required to back up the natural gas supply and, therefore, turned to an assessment of potential locations to locate the Equipment.

4. Alternative Sites Considered

The Company's location assessment for the Equipment was guided by the following criteria: ownership and/or control of the site (favoring sites owned by the Company or currently for sale); accessibility for the LNG trucks; parcel size; travel route; electrical supply (sought to reduce reliance on generators to minimize impact on neighbors); phone service (reliable

communications to/from Gas Control required); and delivery of LNG into the 99 pounds per square inch ("psig") system. The last criterion is the most critical; connecting into the 99 psig system is the only way to support the Aquidneck Island distribution system in the event supply from the transmission line is constrained or lost. Given the urgency surrounding the Spring 2018 and Winter 2019 Mobilizations, the Company only had two viable options to consider: the Naval Station and the Property. The Property was the preferred site for both mobilizations because it did not present the access limitations applicable to the Naval Station (and explained in further detail below).

The Company evaluated and continues to evaluate alternative locations for the Equipment to be mobilized on a reoccurring basis during the winter months while a long-term solution to the supply constraints is engineered and constructed, including: (i) the Naval Station; (ii) a second Navy-owned site, Tank Farm 3; (iii) the Property; (iv) the former Newport Grand Casino parking lot; and (v) a local nursery site (located on Turner Road near the Ward Avenue intersection). With respect to these sites, the Company considered the following:

(i) The Naval Station received an EFSB license to operate as a permanent LNG transfer station in September 2001. The Company has site control through a lease with the Navy and the site is configured to connect to the 99 psig system. In addition, the vaporizer equipment is permanently installed. While this site meets the criteria for locating the Project, the U.S. Navy now restricts access to the Naval Station facility to the point that it would be impossible for the Company to depend on this site for backup purposes. Specifically, the Navy limits the Company's access to certain hours of the day, restricts the number of truck deliveries allowed per day, and requires all personnel to pass an extensive vetting process before they are allowed on the base.[3] These limitations are inconsistent with the need for short-notice access for multiple LNG delivery

[3] The Company was unsuccessful in obtaining an amendment to its lease which would ease some of these restrictions.

trucks in the event of an interruption of the natural gas supply to Aquidneck Island. Moreover, the site is not available in the long-term because the U.S. Navy has indicated that it does not intend to renew the Company's lease due to its own plans for use of the site. Due to the challenges of operating at the Naval Station, the Company had to reject the Naval Station site as the location for the Project.

(ii) Tank Farm 3 is a Navy site located on Burma Road in Portsmouth, north of Carr Point. The site is currently 1.5 miles from the 55 psig system and does not have the same takeaway flow capability as Old Mill Lane. A 99 psig main extension would be required to increase the takeaway capability. The Company evaluated two routes for this connection and identified pipe size and length required to connect the site to the 99 psig system. In addition to a main extension, a 99 psig to 55 psig district regulator is required to increase the takeaway capability. The Company estimated the costs associated with both routes and installing a new regulator station and referenced project costs for more recent similar projects. In addition, the Company estimated the cost for preparing the Brownfield site for use as a portable LNG facility, including purchase of portable LNG equipment. The conceptual estimated cost for Route 1 with the regulator and site preparation is approximately $60.2 million and the cost for Route 2 is approximately $63.1 million. Tank Farm 3 is located outside of the secured area of the Navy Base and therefore the Company does not anticipate having the same heightened access restrictions.

(iii) The Property was the preferred location for the Project because it is owned in fee by the Company, located adjacent to where the distribution system connects to the transmission line that supplies Aquidneck Island, and located at the beginning of the Aquidneck Island 99 psig system. In addition, the site offers reliable electrical supply and telephone service,

is accessible to LNG trucks, and has sufficient size for this temporary use. The Property, however, does present size constraints which are, in part, due to the wetlands which limit the useable area.

(iv) The former Newport Grand Casino parking lot is located at 150 Admiral Kalbfus Road in Newport. The Company recently learned that this site is no longer available, having been purchased by a company for redevelopment.

(v) The local nursery site (located on Turner Road near the Ward Avenue intersection) also was considered as an alternative location for the Equipment. The nursery is located relatively close to the 99 psig system, requiring only a 3,000-foot main extension to connect. However, the nursery site was ultimately rejected because it is not currently on the market. The Company had been made aware that the site may go on the market, however, given it had not yet been placed for sale, it would likely not meet the Company's timeline for mobilization.

After carefully assessing these options, the Company concluded that the Property was the only viable location that could be rapidly mobilized to provide backup to the Aquidneck Island system.[4]

5. 2019 Waiver Request

In the Spring 2018 and Winter 2019 Mobilizations the Company had to respond to immediate, short-term circumstances with the knowledge that the Equipment would only be present for a few months and the site would be restored. However, by early-2019 the Company for the first time had knowledge that it would need to install the Equipment on a reoccurring basis until a long-term solution is completed. Although the Company still views the operation of the Equipment as temporary and outside of the EFSB's jurisdiction, the fact that it would reoccur,

[4] The Company continues to assess possible site alternatives to the Property.

likely for several years, was a material difference that prompted the Company to present the Equipment to the Board for the first time.

On October 24, 2019, the Company filed with the EFSB a Petition for Waiver from the licensing requirement of the Act for the Company to operate the Equipment at the Property to provide emergency backup natural gas supply to Aquidneck Island. On November 6, 2019, the Company filed a supplement to the Petition whereby it argued that not only was a waiver from any licensing requirement appropriate given the temporary nature of the Project, but that it also believed the EFSB lacked jurisdiction over this Project because it did not constitute a "major energy facility" as contemplated by the Act. At the EFSB open meeting on November 7, 2019, and in the written order that issued on January 8, 2020, the EFSB granted the Company a two-year waiver (of the four years the Company had sought) given the imminent winter and ordered the Company to file a declaratory petition setting forth its jurisdictional arguments.

For the reasons explained herein, the Company respectfully requests a declaration that the temporary operation of the Equipment to respond to and/or avoid an ongoing and/or foreseeable threat to the continued reliable delivery of natural gas to customers is not a "major energy facility" subject to the EFSB jurisdiction or an alteration to existing facilities. Excluding such temporary projects from EFSB jurisdiction would further the Act's goal of maintaining reliable energy supply and service. Finding otherwise would forbid or delay timely responses to circumstances that threaten reliable energy supply, which would be contrary to the Act's purpose and would lead to the absurd result that a responsive action to ensure reliable service would be subject to a lengthy regulatory review that would likely last longer than the circumstances the proposed responsive action would be intended to address.

## ANALYSIS

Pursuant to Rhode Island law, "[n]o person shall site, construct or alter a major energy facility within the state without first obtaining a license" from the EFSB. R.I.G.L. § 42-98-4. The Act defines a "major energy facility" to include "facilities for the conversion, gasification, treatment, transfer or storage of liquefied natural and liquefied petroleum gases," § 42-98-3. For reasons further explained below, the Company submits that the Act is intended for permanent facilities and/or permanent modifications to existing facilities so the Act should not apply to the installation of the Equipment, the operation of which is temporary and is necessary to address and/or avoid an emergency. Thus, the Project is not subject to the jurisdiction of the EFSB because it is neither a major energy facility, nor is it an alteration of an existing major energy facility.

### A. Neither the Equipment, nor the Project, Is a Major Energy Facility.

There is no evidence that National Grid, its legacy companies or even the State of Rhode Island have ever interpreted "major energy facility" to include the temporary operation of portable LNG vaporization equipment. To do so would frustrate the purpose of the Act, detrimentally affect the reliability of gas service to the residents of Rhode Island in contravention of the intent of the Act and lead to the absurd result that the Company may be unable to respond effectively to gas supply interruptions.

#### 1. The Act Applies Only to Permanent Facilities.

The language of the Act itself reflects the Legislative intent to require only permanent major energy facilities be subject to the Board's siting proceedings. The Act expressly provides that "[i]t shall be the policy of the state to assure that: … (2) Construction, operation, and/or alteration of major energy facilities shall only be undertaken when those actions are justified by long term state and/or regional energy need forecasts." R.I.G.L. § 42-98-2. Temporary LNG

facilities, however, are not justified by energy need forecasts but by the need to respond to an immediate or near-term disruption, indicating that the Legislature did not intend to regulate them under the Act. The Act also speaks in terms of "major issues of public health and safety and impact upon the environment," "long term impact on the economy of the state" and that "the evaluation of proposals must recognize and consider the need for these facilities in relation to the overall impact of the facilities upon public health and safety, the environment and the economy of the state." *See* § 42-98- 1(a). None of these concerns are implicated by this temporary installation of Equipment. In addition, use of the Equipment cannot be avoided in the short term through demand reductions, such as energy efficiency or conservation measures. *See* § 42-98- 2. Thus, the express legislative policies and findings in the Act indicate that the legislative purpose of the Act does not include subjecting Equipment to licensing by the Board.

2. Requiring the Equipment Installation, and Similar Temporary Facilities, to Secure EFSB Approval Before Operating Would Frustrate the Purpose of the Act.

Moreover, pursuant to the legislative findings described in the Act, "[t]he general assembly recognizes that reasonably priced, *reliable* sources of energy are vital to the well-being and prosperity of the people of this state." R.I.G.L. § 42-98-1 (emphasis added). A key component of a reliable energy system includes a utility's ability to respond in an expedited manner when the energy supply is in jeopardy. *See* R.I.G.L. § 42-98-1. One tool that is of paramount necessity to ensuring the reliability of any gas system, especially during winter months, is the ability to quickly assemble and place into service a mobile LNG facility to respond to and/or prevent threats to reliable gas supply. The Company relies on such mobile LNG facilities both proactively – e.g., to avoid potential service disruptions as with the Spring 2018 Mobilization caused by AGT's O&M

activities – and reactively – e.g., to react to an unforeseen and continuing loss of gas supply as with the Winter 2019 Mobilization.[5]

Whatever the reason, it is indisputable that maintaining reliable gas service necessarily involves the ability to respond quickly when that service is in jeopardy. This is especially true for gas distribution systems in which a service interruption cannot simply be cured by restoring supply. Any interruption that requires turning off service would require purging the system and then restoring service one customer at a time. To mitigate the impact of a service interruption, it is critical for the Company to have the ability to respond expeditiously to gas constraints prior to any interruption.

Accordingly, an interpretation of the Act that would require EFSB approval for mobile LNG facilities such as the Project would frustrate and impede the Company's response capabilities – a result that would contravene the Act's legislative policies and intent aimed at maintaining a reliable gas system. *See* R.I.G.L. § 42-98-1. Even an expedited review by the EFSB would not enable the immediate or rapid mobilization that the Company must have in order to serve Rhode Island residents under certain circumstances.

3. Requiring Full Permitting Would Lead to Absurd Results

It is a well-settled principle of Rhode Island law that a statute shall not be interpreted literally when doing so would lead to an absurd result, or one that is at odds with legislative intent. *See Berman v. Sitrin*, 991 A.2d 1038, 1049 (R.I. 2010) (citing *Raso v. Wall*, 884 A.2d 391, 395 n. 11 (R.I. 2005) (recognizing that the plain meaning approach to statutory construction is not to be adhered to when it would lead to an absurd result); *see also State v. Menard*, 888 A.2d 57, 60 (R.I. 2005) (that "under no circumstances will this Court construe a statute to reach an absurd

[5] Assuming there is an available connection point on or near the property, the typical setup time is 2 or more weeks.

result.") (internal quotation and citation omitted). The Company must be able to respond expeditiously to an ongoing or potential gas supply disruption by operating Equipment at the Property or at an alternative site. The Company would be entirely unable to respond timely and effectively to such situations if it first had to complete the siting process. It would be an absurd result to interpret the Act in a manner that would require temporary projects, designed to prevent and respond to an emergency, to undergo the full permitting process applicable to major energy facilities given (i) such projects can take several years to get permitted, (ii) the Act does not have an emergency exception or allow an abbreviated or expedited process for such projects, and (iii) the Project is not permanent. Finding differently would severely hamper the Company's ability to sustain service in the event of a constraint on the natural gas supply line.

For the reasons stated above, including the temporary operation of portable LNG vaporization equipment in the definition of "major energy facility" would frustrate the purpose of the Act, detrimentally affect the reliability of gas service to the residents of Rhode Island in contravention of the intent of the Act, and lead to the absurd result whereby the Company may be unable to respond effectively to gas supply interruptions.

**B. There Is No Record of Gas Companies Having Sought or Received EFSB Approval for the Operation of the Equipment.**

Consistent with this clear Legislative intent and the fact that a contrary interpretation would frustrate the Act's purpose and lead to absurd results, historically portable LNG facilities have not been subject to the EFSB's jurisdiction. Portable LNG vaporization equipment has been operated as a temporary backup to the natural gas supply in Rhode Island for more than 50 years. The Company's research, however, has failed to reveal any instance in which National Grid or any legacy gas company sought, or the Board required, state siting approval for a temporary portable LNG mobilization, evidencing a consensus view that such facilities were not major energy

facilities within the EFSB's jurisdiction. There has not been any change in circumstances that would rationally support the Board now treating the Project as a facility subject to its jurisdiction.

In 1993, for example, Providence Gas requested that the Division waive the enforcement and applicability of regulatory provisions of Title 49 of Code of Federal Regulations 193 of the U.S. Department of Transportation Pipeline Safety Regulations for the operation of Equipment to be temporarily located in Westerly, Rhode Island. *See* Exhibit F. The operation was proposed by Providence Gas to alleviate the natural gas supply constraint on the coldest winter days at peak demand. According to its waiver petition, Providence Gas had operated Equipment on five to six occasions during the high-use periods during the previous winter (1992-1993). Providence Gas also noted "that these types of units have been safely operated, without incident, for over 27 years." Waiver Petition at 1, Exh F. By Order dated November 19, 1993, the Division granted the waiver for a one-year period, specifically noting that "[t]he current federal LNG safety standards [did] not address smaller LNG operations that are transportable in nature" and that exemptions like the one being sought had been made in the past.[6] Notably, although the Act was in effect in 1993, the waiver petition and Order make no reference to seeking or needing siting approval for the temporary operation of the Equipment and the Company has not found any record of any such proceeding. It was apparently a forgone conclusion by all parties and agencies involved that the Act, and by extension the EFSB's jurisdiction, did not extend to temporary operations of the Equipment needed to ensure the continued reliable service under unusual circumstances.

The Company sees no rational basis for the Board to depart from its prior norms. *See Town of Burrillville v. Pascoag Apartment Assocs., LLC*, 950 A.2d 435, 451 (R.I. 2008) ("presumption

[6] Division of Public Utilities and Carriers, November 19, 1993, State Approval of a Request for Waiver from the Providence Gas Company from the Enforcement and Applicability of Regulatory Provisions of Title 49 C.F.R 193 (Part 193) for the Operation of a Mobile Liquified Natural Gas Facility to be Temporarily Located in Westerly, Rhode Island.

exists that an agency . . . must explain a departure from its prior norms"). To the contrary, and as explained above, it would be irrational to require temporary LNG facilities to secure siting approval through a process that would frustrate the purposes of the Act.

**C. The Naval Station Is a Permanent Facility that Was Properly Sited by the Board.**

In its Order granting the Company a two-year waiver, the Board directed the Company to distinguish the Project "from the previously-licensed facility at the Naval Base in Middletown or explaining why the Board erred in exercising licensing jurisdiction over that facility." Order at 5. This installation of Equipment at the Property, and other similar operations, are readily distinguishable from the permanent LNG Transfer Station within the Naval Station for which the Company's predecessor, the Providence Gas Company[7] ("Providence Gas"), correctly sought Board approval.

In 2001, Providence Gas applied for and received approval from the EFSB to construct and operate an LNG Transfer Station within the Naval Station in Portsmouth, Rhode Island. *See* Exhibit G, Amended Application for the Construction and Siting of a Liquefied Natural Gas (LNG) Transfer Station ("Amended Application"). The Naval Station is sometimes referred to as a portable LNG facility because the LNG arrives at the Naval Station facility via a truck and is not stored on the site.[8] As evident by the Providence Gas's application and the 2001 EFSB Order, however, the Naval Station facility was intended at the time as a permanent facility for the vaporization of LNG to provide natural gas to Aquidneck Island as needed. The permanency of the Naval Station is evidenced by (a) the installation of three buildings and supporting equipment

[7] Providence Gas became a division of Southern Union Company, which was later acquired by the Company.
[8] When the Company identified the Naval Station facility as a "temporary portable vaporization facility" in its October 24, 2019 filing to the EFSB, it was referring to the portability of the LNG supply itself and to its temporary/seasonal use during peak demand. At the time the site was permitted, Providence Gas estimated that the facility would be used during 8-10 days per heating season.

as shown on the photos in Exhibit H, and (b) the need, as summarized in the application, for the Naval Station facility to continually serve this role in the future. Unlike the Equipment, it is not a facility that is essentially stood up for a temporary period, then taken down once the imminent need for which it was mobilized has passed.

In its 2001 EFSB application, Providence Gas specifically identified Old Mill Lane as a potential alternative permanent site, but it was rejected due to size constraints. Providence Gas noted that the Property at Old Mill Lane was "large enough for a mobile facility" but "[s]ite size preclude[s] use as [a] permanent facility." Providence Gas 2001 Application at 29. Providence Gas specifically sought a "permanently sited vaporizer" which ruled out the Property. Id. Providence Gas also rejected reactivating the propane facility at Old Mill Lane for "long term use as a primary supply facility" because of the constraints of using propane for peak shaving. Providence Gas did note that "[r]eactivating the site would also require going through the permitting process." Application at 25. This, again, suggests that the commonly accepted view was that permitting would be required only for permanent long-term facilities.

The installation of Equipment on Old Mill Lane is not permanent. Indeed, as described in the 2001 Providence Gas EFSB application, the Property could not support a permanent LNG facility. The site uses removeable pads for flooring, portable equipment, a temporary fence, an office trailer and portable toilet. In addition, once the need for emergency supply backup ends with the winter heating season all Equipment is removed. The only commonality between the proposed Project at Old Mill Lane and the Naval Station is that they both served as backup supply during periods of supply constraints. Because the Naval Station was designed as a permanent facility intended for permanent use, considerations such as public health and safety, impact upon the environment and the like were relevant and applicable. By contrast here, by the time a full

application was prepared, let alone pursued through the required administrative process, the need for the Project would have ended and the Company would have been unable to respond to emergent circumstances, and perhaps even to planned interruptions like AGT's O&M activities. Such an outcome that places at risk the reliable delivery of energy is contrary to the outcome that the Act was intended to foster. *See* R.I.G.L. § 42-98-1.

In summary, the Company needs the ability to mobilize these temporary operations when necessary to maintain reliable service. The Equipment should not be considered a major energy facility when it is not a permanent improvement to the system and results in limited temporary impacts to natural and social environment.

**D. The Project Is Not an Alteration.**

In addition to the Project not constituting a "major energy facility," the Project also is not an "alteration" of an existing major energy facility, i.e. the Aquidneck Island natural gas distribution system. "Alteration means a significant modification to a major energy facility which, as determined by the board, will result in a significant impact on the environment, or the public health, safety, and welfare." R.I.G.L. § 42-98-3. There is nothing significantly impactful about the Project. The Project is not expected to have any environmental impacts or social impacts beyond the setup and removal of the Equipment, the traffic increase from people working on the site, and the delivery of LNG to the site. For the same reasons there are no anticipated impacts to the public health, safety, and welfare. In addition, the setup and operation of the Equipment will be completed in a manner that meets or exceeds the federal regulations for Mobile and temporary LNG facilities, 49 C.F.R. § 193.2019.

## E. Proposed Reporting Process

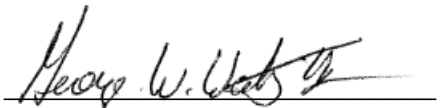
Although the Company maintains that the Project is not subject to the Board's jurisdiction, the Company would welcome an opportunity to notify Rhode Island regulators when a portable LNG facility is mobilized in the state. The Company proposes a process whereby it gives notice, including project location, description and need, within 30 days of a mobilization of any temporary LNG facility in Rhode Island. The Company proposes notifying the EFSB, the PUC and the Division and can work together with these entities to create a reporting process that is satisfactory to the parties. A notification process could also provide regulators an opportunity (and process) to seek additional information regarding the mobilizations from the Company. A reporting process would balance regulators' interests in being informed of the projects with the Company's need to respond expeditiously to any gas supply constraints that would jeopardize system reliability.

## CONCLUSION

For the reasons stated herein, the Company respectfully requests that the EFSB issue a Declaratory Order pursuant to R.I. Gen Laws § 42-35-8 that the Company's mobile LNG facilities are not subject to the EFSB jurisdiction because they are not major energy facilities nor alterations to existing major energy facilities.

THE NARRAGANSETT ELECTRIC COMPANY
d/b/a NATIONAL GRID

By its Attorney,



George W. Watson, III
Robinson & Cole LLP
One Financial Plaza
Suite 1430
Providence, RI 02903

## EXHIBIT LIST

**Exhibit A** - Aerial Photo of the Property
**Exhibit B** - Map of the Winter 2019/2020 Equipment Arrangement
**Exhibit C** - Photos of the Fences and Mats
**Exhibit D** - Photos of the Installed Equipment
**Exhibit E -** Photo of the Property with Equipment Removed
**Exhibit F** - 1993 Providence Gas Decision
**Exhibit G -** 2001 Amended Providence Gas Application- Navy Yard
**Exhibit H** - Photos of the Naval Station LNG Transfer Station

Exhibit A

Aerial Photo of Property

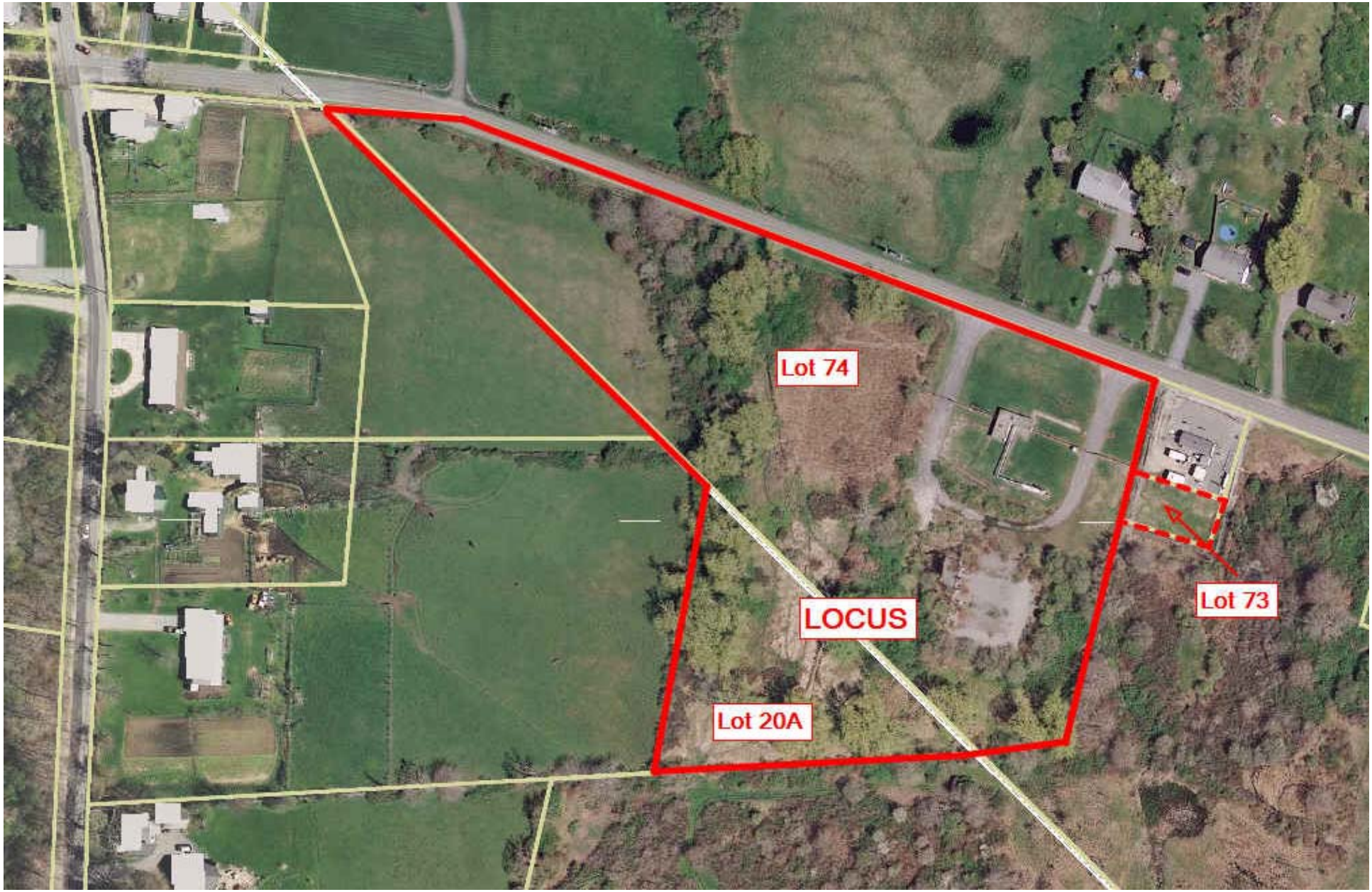
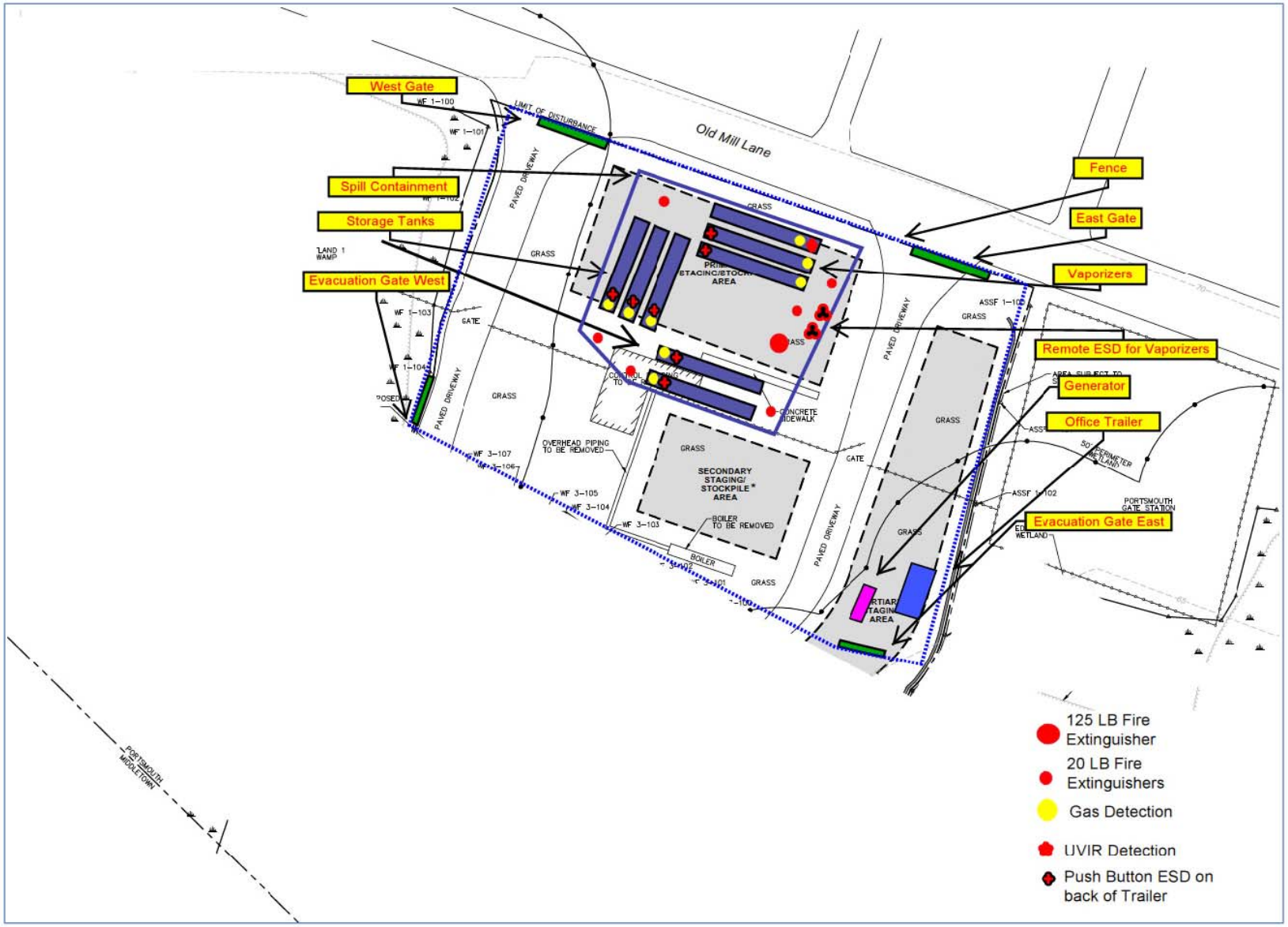


Exhibit B

Map Showing Equipment Arrangement




National Grid - LNG Operations - Portsmouth Mobile Site - Old Mill Lane, Portsmouth RI (Winter 2019-20)

Exhibit C

Photo of Fences and Temporary Mats

Exhibit D
Photos of Installed Equipment (November 2019)


Stabilis
NITEC

Exhibit E
Property with Equipment Removed (June/July 2020)

Exhibit F
1993 Providence Gas Decision

DEC - 3 1993

Mr. James J. Malachowski
Administrator
Rhode Island Public Utilities Commission
100 Orange Street
Providence, RI 02903

Dear Mr. Malachowski:

Thank you for your letter of November 19, 1993, regarding the use of mobile Liquefied Natural Gas (LNG facilities in Rhode Island. You describe Rhode Island Public Utilities Commission (PUC) approval of petition by Providence Gas Company (Petitioner) for waiver of 49 CFR 193 for mobile LNG facilities.

Petitioner states that application of Part 193 to mobile LNG facilities is unduly burdensome an economically inefficient in the provision of service to its customers. In justification of the waiver, Petitione points to a 27 year history of safe use (without incident) of mobile LNG facilities in Rhode Island an elsewhere. Utilization has been predominately in pipeline maintenance and emergency gas suppl capacity. PUC evaluated the petition and determined that use of mobile LNG facilities is necessary an essential for Petitioner to maintain continuous and uninterrupted service during planned operations an maintenance activities, and during emergency conditions. Further, PUC granted Petitioner's request fc waiver of Part 193 subject to a list of alternate safety requirements for mobile LNG units as outlined i Petitioner's application. PUC states that such safety provisions have been adopted recently by all Ne England states. PUC also imposed additional safety parameters in PUC's November 19, 1993 approv letter to Petitioner.

Based on the findings of fact and the alternate safety requirements for mobile LNG units adopted an imposed by PUC, we believe that use of mobile LNG facilities under the alternate safety requirement would not be a danger to public safety. Accordingly, the waiver is not inconsistent with pipeline safet For this reason, we do not object to the waiver as granted.

Sincerely,

Original signed by

George W. Tenley, Jr.
Associate Administrator for
Pipeline Safety

cc:

DPS-1/2/10/11/20/24; DCC-1; TSI
DPS-11:JWillock:jw:366-1640:December 1, 1993
FILE: Rhode Island State Waiver File
C:\wp51: :RI-LNG1.WAV
DPS-93-0245

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

PUBLIC UTILITIES COMMISSION
100 Orange Street
Providence, R.I. 02903
(401-277-3500)

FAX (401)277-6805
TDD (401)277-3500

Mr. Cesar De Leon
Director, Regulatory Programs
Office of Pipeline Safety
United States Department of Transportation
400 7th Street, S.W.
Washington, D.C. 20590

November 19, 1993

RE: Proposed Mobile Liquified Natural Gas Facilities in Westerly Rhode Island

Dear Cesar:

I have enclosed a filed petition from a local intrastate gas operator, Providence Gas Company, requesting a waiver from the regulations applicable in the Natural Gas Pipeline Safety Act for the use of a mobile Liquified Natural Gas ("LNG") trailer-mounted vaporizing unit in Westerly, Rhode Island. The mobile operation will be directly connected to the distribution system for use during peak usage periods in the heating season. Our agency finds the necessity of such a mobile LNG operation as being essential to the continuous and uninterrupted service in the affected area.

In the previous 1992-1993 heating season, Providence Gas operated the mobile LNG unit at its Westerly (Canal Street) plant on five to six occasions during high use periods. The relocation of the vaporizer from the former plant area to Airport Road was chosen in order to replenish the most remote portion of the system by the most direct distribution means.

It appears that a major supplementary gas demand influencing this southerly portion of our state will be coming from bordering Connecticut. The newly-constructed Ledyard gambling casino has dramatically increased the natural gas demand in the area and the casino is served from the same interstate gas source as the Westerly area. This additional forecasted load requirement will impacted the availability of peak gas in the 1993-1994 heating season for this remote Rhode Island area.

The application consists of safety provisions that have been recently adopted by all New England states for the utilization of portable LNG equipment as a temporary measure until your office can promulgate specific regulations on this matter. In addition to

those safety parameters, our agency has further imposed within its recommendation certain conditions to monitor the safety of the LNG operation.

In reference to 49 U.S.C. App. 1672(d), a waiver may be granted by a certified State agency provided written notice is given to the U. S. Department of Transportation at least sixty days prior to the effective date of the waiver. In regards to the effective date of the request, our affirmative recommendation is contingent upon approval from the USDOT. With the heating season upon us, our office would like to request your immediate attention on this matter in order to prevent any interruption in gas service to affected Rhode Islanders. Your prompt cooperation concerning this matter will be deeply appreciated.

Sincerely,

James J. Malachowski
Administrator
of the Division of Public
Utilities and Carriers

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

DIVISION OF PUBLIC UTILITIES AND CARRIERS
100 Orange Street
Providence, R.I. 02903
(401) 277-3500

FAX (401) 277-6805
TDD (401) 277-3500

Mr. Wiliam Mullin
Vice President, Operations
Providence Gas Company
100 Weybosset Street
Providence, R.I. 02903

November 19, 1993

Dear Bill:

Pursuant to the petition filed October 27, 1993 by your company, the Rhode Island Division of Public Utilities herein grants a waiver to operate and maintain a mobile Liquefied Natural Gas (LNG) unit on Airport Road in Westerly for a one year period. This enclosed approval allows the use of the mobile LNG unit at the proposed location and exempts the Providence Gas Company from the regulatory provisions relating to permanent (immobile) LNG facilities under Title 49 of Code of Federal Regulations (CFR) 193 (Part 193) of the U.S. Department of Transportation (USDOT) Pipeline Safety Regulations.

The current federal LNG safety standards do not address smaller LNG operations that are transportable in nature and exemptions have been allowed to other New England gas operators in the past few years with the concurrence of the USDOT. It is expected that there will be additional safety regulations adopted by federal government pertaining to this seasonal gas process and during the interim, the states of New England have collectively developed specific safety principles associated with this type of operation that has been included in Providence Gas' petition.

As stated in the waiver from the Division, the exemption will only be effective upon confirmation from the USDOT. The company's petition, our agency's decision and a transmittal letter requesting an expeditious review will be forwarded to appropriate federal regulatory entity. It is expected that the USDOT will provide a decision on this situation within a week from receipt.

The waiver is site specific, in that, the trailer-mounted LNG vaporizer operation which was formerly located at the Canal Street plant in Westerly in the 1992 heating season and will be relocated on leased property on Airport Road in Westerly. Our senior gas safety technician has field reviewed the site on October 22, 1993 prior to the final petition being submitted to our agency. Upon

recommendation from this staff member, the Division finds the waiver proposal to be reasonable and appropriate in view of the past experiences and forecasted circumstances. It also finds the isolated relocation site for the mobile LNG equipment as being conducive to this type of seasonal gas process.

Investigators from our agency will be monitoring this temporary LNG process from time to time during the winter operational period. It will be incumbent on your company to provide advanced notice of the LNG operational time frames for this Westerly mobile plant to Mr. LaChance (277-3500, ext. 124) of our office on a weekly basis, so we may schedule inspections in coordination with other field activities.

Sincerely,

James J. Malachowski
Administrator
of the Division of
Public Utilities and
Carriers

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
RHODE ISLAND DIVISION OF PUBLIC UTILITIES

# STATE APPROVAL OF A REQUEST FOR WAIVER FROM THE PROVIDENCE GAS COMPANY FROM THE ENFORCEMENT AND APPLICABILITY OF REGULATORY PROVISIONS OF TITLE 49 C.F.R. 193 (PART 193) FOR THE OPERATION OF A MOBILE LIQUEFIED NATURAL GAS FACILITY TO BE TEMPORARILY LOCATED IN IN WESTERLY, RHODE ISLAND

November 19, 1993

## I. Application for Waiver

On September 21, 1993, a preliminary meeting was held at the request of Providence Gas Company (" PGC") ) with engineering and administrative personnel of the Division of Public Utilities and Carriers ("Division") to discuss a draft petition of waiver seeking relief from the regulatory requirements under Title 49 of the Code of Federal Regulations (CFR) 193 (Part 193) to temporarily operate and maintain a mobile Liquefied Natural Gas ( LNG) facility in Westerly, Rhode Island.

In the previous 1992-1993 heating season, the mobile LNG vaporizing unit was in operation and was located on utility-owned property at the Canal Street Plant in Westerly. There were about five to six truck transfers of LNG during that time frame. The company has decided to move the mobile unit to a more advantageous location,in which, the most remote portions of the gas system can be supplemented on a more direct basis.

The determination to relocate the mobile unit was also based on the additional forecasted gas demand associated with the recently-constructed Ledyard gambling casino. The gas company purports there will be a greater requirement for supplementing the Westerly system with LNG this year in view of the potential pipeline shortage to be encountered from the new demand. It has been projected that there will be twenty-five to thirty-five truck transfers to the vaporizing unit during the upcoming winter months to augment the additional demand. The gas company is currently evaluating other alternatives to this concern such as extending laterals or a size upgrading of its transmission pipeline but these solutions are long term.

After extensive discussions on the issue, a consensus was reached during this informal meeting that the gas company would filed a final petition. That application would be reviewed by this agency and a waiver determination would be rendered. It was also declared by this agency that if approved, the confirmation would be limited to a one year period only at the proposed location on Airport Road in Westerly as stated in the petition..

On October 1, 1993, the PGC filed the petition with the Division. The application did not include, at the time, a final site plan because there was a concern of possible minor modifications from an upcoming October 6, 1993 local zoning hearing in Westerly. The public hearing brought forth opposition from the residential property owners and the zoning decision was tabled. Without local zoning approval, PGC could not proceed with its proposed plan at the proposed site.

The Providence Gas Company subsequently selected an alternate

site to operate and maintain the mobile LNG equipment on Airport Road in Westerly and again filed, on October 27, 1993, a substitute waiver with this agency. The contemplated site is leased property and zoned for industrial use. The gas company received assurances from the local board that there would not be a municipal requirement for special zoning permission to relocated the mobile unit at this new location since it was classified for industrial operations.

The petition stated that specifics of Part 193 concerning the safety codes for LNG were established for permanent larger (immobile) LNG storage facilities and not for smaller mobile units. The application further stated that it would be " unduly burdensome and economically inefficient " in its provision of service to its customers if the company had to comply with safety requirements of permanent LNG equipment. The petitioning party praised the national safety record (for over 27 years) of this type of mobile LNG vaporizer without an incident. The written appeal included the company's sixteen safety provisions to Part 193 that would provide precautionary measures to assure a higher degree of safety.

The Providence Gas Company application containing those safety conditions (summarized below and also in Attachment #1) to Part 193 have been adopted by five New England states and would provide for a balanced security during the gas vaporization process using the mobile LNG equipment.

Those safety stipulations include:

(1) the transports of the LNG product
(2) the operators to be qualified by training and experience
(3) a written training plan
(4) a maximum of two year retraining of operators
(5) a preventative leakage control program
(6) operational provision during transfer
    (a) Continuous attendance
    (b) Periodically monitored with leakage detection equipment
    (c) Restrict public access
    (d) Portable fire equipment with instructions on site
    (e) Continuous monitoring of pressure and temperature of the distribution system being served
    (f) Emergency communications available
    (g) Training of local fire fighting agencies on LNG and the mobile unit
(7) minimizing accidental ignition
(8) required odorization

## II. DIVISION RECOMMENDATIONS

On October 22, 1993, the Division's gas engineering personnel visited the area of the planned relocation site for the portable LNG vaporizer. The site inspection of the premise and a review of the submitted site plan has brought about one specific safety concern to the Division. In addition, our approval is also limited to the specific site as proposed on Airport Road in Westerly known as Assessor's Lot 17 on Plat 118 in the Town Hall records and also subject to the conditions set forth in Section II of this document. The proposed site plan did not provide for a containment dike in close proximity to the LNG vaporizer for potential leakage.

In our further discussions with the local utility, the gas company stated that it was an oversight on their part for not including this safety aspect on the proposed site drawing. It was and is the company's intention to construct such an earth barrier to restrain the possible spillage. The barrier will be built as a holding structure and will be erected in the lower elevation areas of the compound near the LNG unit.

The Division is interested in inspecting the completed facility prior to its operation and will be paying close attention to the newly-constructed earth barrier and its control efficiency. The Division proposes the following as conditions of this waiver approval.

(1) That the Providence Gas Company will notify the agency, prior to the commencement of its LNG vaporizing operation, that the temporary site is available for a field inspection of our agency.

(2) That the Providence Gas Company provide advanced notice of its first LNG trucking-transfer at the proposed Westerly mobile plant, so that this agency may field review the safety aspects of the operations.

The contact person for the Division will be Mr. Glenn LaChance, Senior Gas Safety Technician at 277-3500, ext. 124.

## III. DIVISION'S APPROVAL FOR WAIVER

The Division will permit a waiver under the Natural Gas Pipeline Safety Act for the use of mobile Liquified Natural Gas facilities. Pursuant to 49 U.S.C. App. 1672(d) a waiver may be

granted by a certified State agency. The Rhode Island Division of Public Utilities and Carriers is certified to regulate safety standards and practices of pipeline transportation pursuant to 49 U.S.C. App. 1874(a).

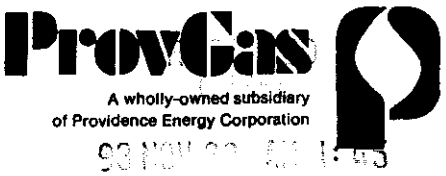
Therefore, the Rhode Island Division of Public Utilities and Carriers grants a waiver of 49 C.F.R. Part 193 for the use of mobile LNG equipment for an annual period from the herein enclosed approval date of the Division. Undoubtedly, this agency's consent is contingent on the USDOT's confirmation and the minimal time delay will reduce the allotted 12 month period slightly.

The Division shall forward this approved waiver to the U. S. Department of Transportation, Office of Pipeline Safety for their review and determination. The application with its exemption will not be in force until the USDOT also affirms the proposed waiver. In view of the heating season upon us and the time delay occurring from the local zoning process, our office would like to request an expeditious review from the Office of Pipeline Safety concerning this matter.

November 19, 1993

James J. Malachowski
Administrator
of the Division of Public
Utilities and Carriers

Attachment # 1




93 NOV 29 AM 1:45

October 27, 1993

Mr. James Lanni
Associate Administrator for Quality Control
Division of Public Utilities and Carriers
100 Orange Street
Providence, Rhode Island 02903

Dear Mr. Lanni:

Enclosed for filing with the Division of Public Utilities and Carriers is Providence Gas Company's Petition for a waiver from compliance with the requirements of 49 CFR Part 193 as they may relate to mobile LNG facilities. Specifically, Providence Gas Company seeks a waiver from the Division to operate and maintain a mobile LNG facility on leased premises on Airport Road (Plat 118, Lot 17) in Westerly. A blueprint detailing the proposed site plan is being submitted with this petition.

The proposed Airport Road site is located within an industrial park in Westerly and is zoned for industrial use. We have been assured by the Westerly Zoning Board that no special exception will be required for relocation of the mobile LNG facilities to this site. If you require additional information with respect to this petition, please do not hesitate to contact me.

Very truly yours,

Alycia L. Goody
General Counsel

ALG/ms

enclosures

cc: (without blueprint) John Milano, Deputy Administrator
Adrienne Southgate, General Counsel
Luly E. Massaro, Clerk

STATE OF RHODE ISLAND
DIVISION OF PUBLIC UTILITIES AND CARRIERS

# PETITION WAIVING ENFORCEMENT OF REGULATORY PROVISIONS OF TITLE 49 C.F.R.193 FROM APPLICABILITY TO MOBILE LNG FACILITIES (AS SUGGESTED BY RSPA OPINION LETTER)

October 27, 1993

## I. HISTORY AND INTENT

On November 2, 1992, Cesar DeLeon, Director, Pipeline Safety Regulatory Program of the United States Department of Transportation issued an "opinion" stating that Mobile Liquefied Natural Gas (LNG) equipment (or units) were facilities subject to the provision of Title 49 CFR, Part 193 (Part 193). This opinion was then disseminated to various federal O.P.S. regions and state regulatory commissions responsible for the enforcement of Part 193.

As a result of the RSPA opinion and action, Providence Gas Company ("petitioner") a person engaged in the "Transportation of Gas" as defined in Section 2 of the Natural Gas Pipeline Safety Act (NGPSA) of 1968 and its amendments, has filed this petition on September 21, 1993, pursuant to applicable federal or state laws, requesting a waiver from enforcement and applicability of regulatory provisions of Part 193 to equipment that RSPA has designated as "Mobile LNG Facilities".

## II. POSITION OF THE PETITIONER

The petitioner has reviewed the RSPA opinion and concluded that applying the requirements of Part 193 to mobile LNG equipment would be unduly burdensome and economically inefficient in the provision of service to its customers. Even RSPA recognizes, in one specific instance, that the "siting requirement of Part 193 may be difficult or overly burdensome for some mobile LNG facilities, considering the temporary nature of their use at particular sites". This regulatory burden is compounded since many subparts and sections of Part 193 are interwoven into the siting requirements, which are particularly suited for permanent (immobile) LNG storage facilities.

In the opinion letter, RSPA "invited comments" that may offer alternative requirements "to lighten the compliance burden without sacrificing safety". This is a welcomed invitation since these units represent a valued pipeline and consumer resource especially when no equivalent or alternative resource is available to the petitioners. It is worth noting that these types of units have been safely operated, without incident, for over 27 years. Utilization has been predominantly in pipeline maintenance and emergency gas supply capacity. Accordingly, the petitioner requests an exemption from the requirements of Part 193 applicable to mobile LNG equipment.

Finally, the petitioner offers a list of alternative safety provisions, when utilizing mobile equipment in Section III of this petition. However, along with addressing a waiver related to an opinion, the petitioner encourages RSPA to consider incorporating these provisions as part a future regulation that distinguishes mobile LNG equipment from permanent LNG storage facilities.

III. ALTERNATIVE SAFETY PROVISIONS

The following provisions are offered as an alternative to Part 193. Incorporated into these provisions are safety aspects from various sections of Part 193 (referenced) that would provide for an equal but reasonable level of safety when utilizing mobile LNG equipment.

1. All LNG transports must be designed, constructed, initially tested, operated and maintained in accordance with applicable federal law and rules.

2. All portable LNG equipment must be operated by at least one person qualified by experience and training in the safe operation of these systems. All other operating personnel, at a minimum, must be qualified by training. To the extent practicable, comply with the following training provisions:

   (a) Each operator shall utilize for operation of components only those personnel who have demonstrated their capability to perform their assigned functions by:

      (1) Successful completion of the training required by provision 2c and 12;

      (2) Experience related to the assigned operation function;

   (b) All other maintenance and support personnel, who do not meet the requirements of 2a but are qualified by experience or training to perform their assigned functions, may perform their duties while equipment is connected to the pipeline transporting the vaporized LNG only when supervised by an individual who meets the requirements of 2a.

   (c) Each operator shall provide and implement a written plan of initial training to instruct all designated operating and supervisory personnel:

      (1) About the characteristics and hazards of LNG used or handled at the site, including, with regard to LNG, low temperatures, flammability of mixtures with air, odorless vapor, boil-off characteristics, and reaction to water and water spray;

      (2) About the potential hazards involved in

operating activities; and

(3) To carry out aspects of the operating procedures that relate to their assigned functions; and

(4) To carry out the emergency procedures that relate to their assigned functions; and

(5) To understand detailed instructions on the mobile LNG operations.

d) Each operator shall have a written plan of continuing instruction that must be conducted at intervals of not more than two years to keep all operating and supervisory personnel current on the knowledge and skills they gained in the program of initial instruction.

[Reference: 49 CFR Sections 193.2707 and 2713]

3. To the extent practicable, all portable LNG equipment must be sited so as to minimize the possible hazard to the public, and any present or foreseeable hazard to the equipment, consistent with the need to provide the service.

[Reference: 49 CFR Section 193.2071]

4. Portable LNG equipment must be reasonably protected against vehicular damage.

5. Reasonable provision must be made for safely controlling leakage of LNG from valves, pipes, vaporizers, or hoses. To the extent practicable comply with the following pipeline transfer provisions:

a) Each transfer of LNG fluid must be conducted in accordance with written procedures to provide for safe transfers.

b) The transfer procedures must include provisions for personnel to, before transfer, verify that the transfer system is ready for use with connections and controls in proper positions.

c) In addition to the requirements of provision 5b of this section, the procedures for pipeline transfer must be available and include provisions for personnel to:

(1) Be in constant attendance during all pipeline transfer operations;

(2) Prohibit the backing of tank trucks in the transfer area, except when a person is positioned at the rear of the truck giving instructions to the driver; and

(3) Before transfer, verify that:

(i) All transfer hoses have been visually inspected for damage and defects;
(ii) Each tank truck is properly immobilized with chock wheels and grounded;
(iii) Each tank truck engine is shut off unless it is required for transfer operations;

(4) Prevent a tank truck engine that is off during transfer operations from being restarted until the transfer lines have been disconnected and any released vapors have dissipated;

(5) Verify that all transfer lines have been disconnected and equipment cleared before the tank truck is moved from the transfer position; and

(6) Verify that all transfers into a pipeline system will not exceed the pressure or temperature limits of the system.

[Reference: 49 CFR Section 193.2513]

6. Reasonable provision must be made to minimize the possibility of accidental ignition in the event of a leak.

7. Reasonable provisions must be made to ensure that the introduction of vaporized LNG will not, to the extent practicable, reduce the odorization level of the system gas below the level required by applicable federal and state regulations or the authority having jurisdiction.

[Reference: 49 CFR Section 192.625]

8. All portable equipment must be continuously attended during the time LNG transport is connected to the other portable equipment, or other means of continuous monitoring must be maintained.

9. The portable LNG equipment must be periodically monitored for leakage by leakage detection equipment when the LNG transport is connected to the other portable equipment.

10. Reasonable provision must be made to restrict access by the general public when the LNG transport is connected to the mobile LNG equipment.

11. Portable fire fighting equipment must be present at all times and properly maintained to allow for effective control of LNG or natural gas fires at the site. To the extent practicable, portable fire control equipment must have operating instructions. Instructions must be attached to portable fire equipment.

[Reference: 49 CFR Section 193.2817]

12. Personnel operating the portable LNG equipment must be trained in the proper use of such fire fighting equipment. To the extent practicable, each operator shall use sound fire protection engineering principles to minimize the occurrence and consequences of fire.

[Reference: 49 CFR Section 193.2803]

13. Reasonable provision must be made to continuously monitor the portable equipment as to the impact on the distribution system being served to ensure appropriate pressures and temperatures are being maintained.

14. Means of communication must exist between the personnel operating the portable LNG equipment and a manned operating center and local emergency authorities. To the extent practicable, each mobile equipment site must have a primary communication system that provides for verbal communications.

[Reference: 49 CFR Section 193.2519]

15. The State agency having jurisdiction over pipeline safety in the State in which the portable LNG equipment is to be located must be provided with a location description for the installation at least 2 weeks in advance, including, to the extent practicable, the details of siting, leakage containment or control, means to restrict public access and fire fighting equipment, except that in the case of emergency where such notice is not possible, as much advance notice as possible must be provided.

16. To the extent practicable, the operator will provide training pertinent to the mobile LNG equipment and LNG in general, to the local fire fighting agency. The local fire fighting agency must be notified of the installation of the portable LNG equipment at least 48 hours prior to the operation of the equipment, except that in the case of emergency where such notice is not possible, as much notice as possible must be provided.

## IV. ACTION REQUEST

Based on the many years of safe operation of mobile LNG equipment, its need, and the recommendation to adopt the alternative safety provisions (which will provide for an equal but reasonable level of safety), the petitioner respectfully requests regulatory relief from the burdensome regulatory treatment and enforcement of Part 193 (as suggested by the RSPA Opinion Letter of November 2, 1992) applicable to mobile (portable) LNG equipment. Furthermore, Part 193 as written, should be applicable to permanent (immobile) LNG storage facilities until such time specific regulations are written to regulate mobile LNG equipment. The sixteen alternative safety provisions are offered and recommended for possible incorporation into Part 193 as regulations governing mobile LNG equipment.

Finally, petitioner reserves the right to address or modify any information or agreements made herein as it pertains to their specific needs and organizational policy, contingent on any regulatory recommendation, requirement or facilities order resulting from this petition.

PROVIDENCE GAS COMPANY

By: _____

William D. Mullin
Vice President, Operations
Providence Gas Company
100 Weybosset Street
Providence, RI 02903

THE SOUTHERN CONNECTICUT GAS COMPANY

By:_____
Samuel R. Clammer
Vice President, Engineering & Gas Supply
The Southern Connecticut Gas Company
885 Main Street
Bridgeport, CT 06604

CITY OF NORWICH
DEPARTMENT OF PUBLIC UTILITIES

By:_____
Richard E. DesRoches
General Manager
City of Norwich
Department of Public Utilities
34 Courthouse Square
Norwich, CT 06360

YANKEE GAS SERVICES COMPANY

By:_____
John J. Smith
Vice President, Operations
Yankee Gas Services Company
599 Research Parkway
Meriden, CT 06450

Exhibit G
2001 Amended Providence Gas Application – Navy Yard

# ProvGas

A ProvEnergy Company

# AMENDED APPLICATION FOR THE CONSTRUCTION AND SITING OF A LIQUEFIED NATURAL GAS (LNG) TRANSFER STATION

**December 2000**

Submitted to:

**ENERGY FACILITY SITING BOARD**

Prepared by

**ProvGas**
**A ProvEnergy Company**
100 Weybosset Street
Providence, RI 02903

William M. Dolan III, Esq.
Louise Durfee, Esq.
Brown, Rudnick, Freed & Gesmer, Ltd.
One Providence Washington Plaza
Providence, RI 02903
Attorneys for **ProvGas**

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|---|---|---|

warrants future consideration of storage, ProvGas would be required to obtain approvals and permits similar to those required by this Facility.

### 3.1.1 Site

The proposed site chosen for the Facility is located on the Naval Education and Training Center in Middletown, Rhode Island on a parcel of land encompassing about 5 acres that was the site of the Derecktor Shipyard. An eighteen-inch thick reinforced concrete slab, on which the Facility will be placed, covers the majority of the site. The majority of the rest of the site is covered with asphalt paving. Access to the Facility site will be through the gate at the north end of the site as shown on the conceptual site plan attached hereto as Exhibit B. For views of the existing conditions of the Facility site and the surrounding area, see Photos S-1 through S-11, attached hereto collectively as Exhibit C.

### 3.1.2 Project Layout

The site plan shows the layout of the Facility using a precast concrete control/generator/sendout building, two (2) precast concrete boiler buildings and one (1) process skid. The skid will be used for the LNG pump system, vaporizer and associated valves. Each of the three buildings at the Facility will be raised five (5) feet above grade so that they are above the 500 year flood level.

### 3.1.3 Control Building

***The control building*** (drawing attached hereto as Exhibit D) will be a 12' by 29' precast concrete building that will be partitioned into three

separate rooms; a sendout metering/odorization room, a control room and a generator room. Appropriate gas detectors, heat/smoke detectors, and hand held fire extinguishers will be located as necessary in each room of the building. This building will contain an emergency shutdown ("ESD") station.

***The sendout metering/odorization room*** of the control building will contain send-out piping, the odorization system including an odorant storage with 110% containment and the sendout flow meter.

***The control room*** of the control building will contain the Remote Terminal Unit ("RTU"), a Fire Alarm Control Panel ("FACP"), a Security System, a Communications System, a personal computer to remotely monitor and control operations, heating, ventilation and air conditioning ("HVAC") equipment and an incinerating toilet facility.

***The generator room*** will contain the emergency generator set, electric motor control equipment and the instrument air compressor system. This room will also be the termination point for electrical, telephone and data lines for the building.

### 3.1.4 Vaporizer/LNG Pump Skid

The Vaporizer/LNG pump skid will include appropriate UV/IR (flame) detector(s), heat detector(s), gas detector(s) and an ESD station.

***The vaporization portion of the skid*** will consist of the vertical LNG vaporizer including the LNG measurement and control systems.

This portion of the skid will include liquid and vapor connections with automatic shutoff valves.

***The LNG pump portion of the skid*** will contain the LNG pump, which will be used to unload the truck transporting the LNG to the site. From this portion of the skid the operator will connect the LNG truck liquid and vapor connections using the Facility pump liquid and vapor hoses. A pump bypass valve will allow the operator to take liquid into the pump using gravity feed and return vapor to the truck via the vapor line prior to starting the pump. This method of transferring the natural gas from the truck will cool down the LNG pump and will avoid any discharge into the atmosphere. A pump stop-start panel will allow the operator to send a signal to the variable frequency drive ("VFD") starter and to stop the pump as well. After cool down and pump start, the operator will be able to control the flow of LNG to the vaporizer.

### 3.1.5 Boiler Buildings

Two (2) boiler buildings will be provided (drawing attached hereto as Exhibit D). Each will be a 12' by 28' precast concrete building with no internal partitions. Each of the two (2) boiler buildings will house two (2) natural draft boilers and the required primary/secondary glycol pumps. Appropriate gas detectors, heat/smoke detectors and hand held fire extinguishers will be located in each building as necessary. Each of these buildings will contain an emergency shutdown ("ESD") station.

### 3.1.6 System Description

The site plan (Exhibit B) illustrates the layout of the components. The process flow diagram attached hereto as Exhibit E illustrates the input and output of the Facility.

LNG transport unloading equipment will be provided with vapor and liquid connections and pressure controls.

The vaporization unit will be located within an impoundment area. The vaporizer will consist of a vertical shell and tube heat exchanger with a tube arrangement surrounded by a single shell. The vaporizer will be operated using automatic LNG flow rate control that will be performed by a PID control loop in a programmable logic controller (PLC). The PID controller will modulate the LNG flow control valve located at the inlet to the vaporizer to maintain the desired flow rate of LNG through the vaporizer. The process variable input to the flow controller is provided by the sendout flowmeter located in the control building. To raise or lower the flow, the operator will need only make the desired setpoint changes through the personal computer located in the control room. The system will monitor pressure and temperature and is designed with safety features so that if temperature and/or pressure exceed pre-established limits, the system will automatically shut down. These temperature and pressure shutdown controls will be designed to override any contrary input from the personal computer.

A water/glycol mixture pumped from the boiler buildings will transport heat for the vaporization process from four (4) boilers. The four (4) boilers will be arranged in a primary/secondary parallel configuration. Each boiler will provide one third (1/3) of the design maximum heat input. The water/glycol boilers will be fueled by natural gas taken from a tap on the distribution system piping downstream of the odorizer. The water/glycol supply and return lines will be routed from the vaporizer to the boiler buildings above ground on common pipe supports. The gas send-out piping will connect directly into the distribution system after odorization.

A stainless steel temperature safety valve will be located in the vaporizer discharge line upstream of the transition to carbon steel. This is the required temperature shutdown valve for the plant. The piping, equipment and outlet of the vaporizer will be stainless steel, up to and including the temperature shutdown valve. This arrangement will effectively protect the downstream carbon steel piping systems from gas temperatures above or below their design rating.

Following vaporization, the gas will flow through 900 feet of 12-inch gas pipe that will connect to ProvGas' existing 99 PSIG distribution system located approximately 200 feet to the east of the site. The 12-inch gas pipe will be run above ground within the site, and will be run below ground from the exterior of the site to the connection with the existing 99 PSIG distribution system.

Pipe supports will be constructed of reinforced concrete and/or stainless steel to provide low maintenance cryogenic supports to ensure the integrity of the structure.

Pneumatic and electric controls and electrical power will be run from the control room and motor control center to the heater and vaporizer areas on above ground supports. The Facility will have a backup generator that will be capable of providing all necessary electricity in the event of a power outage.

As another important safety feature, a check valve, will prevent back flow of natural gas vapor from the distribution system into the plant. A manual block valve on the plant discharge line will allow for total isolation of the vaporization unit.

In accordance with prevailing insurance industry standards, Factory Mutual Approved fire and gas detectors, complete with the requisite audible and visual alarms will monitor the pump/vaporizer area, the water/glycol heater areas, the truck unloading area and the control area.

Automatic controls and safety interlocks for the system will be executed by either the RTU or the FACP, located on-site in the control building. These first level controllers will be programmed to protect the plant according to safety and operational requirements that have been developed in the Interlock Logic Diagram -- a widely recognized safety methodology. The RTU and the FACP will be connected to the on-site

personal computer, which in turn will be connected to the ProvGas SCADA system that will be monitored 24 hours per day by trained ProvGas personnel at the Allens Avenue facility in Providence.

All electrical equipment will be installed in accordance with the requirements of the National Electric Code.

### 3.2 Site Plan for the Proposed Location

As shown on Exhibit B, the Facility will be enclosed by an eight-foot tall security fence, that has two vehicle gates and a personnel gate. Buildings and facilities shown on the site plan are described in detail in section 3.1 above. Painting lines on the existing concrete slab and paved areas of the site will serve to delineate the road shown on the plan.

### 3.3 Total Land Area Involved

As shown on Exhibit B, the total area of the site on which the Facility will be constructed is about five (5) acres. Excluding the area necessary for the movement of trucks and other vehicles, the Facility will occupy approximately 17,000 square feet, or approximately four-tenths of an acre, at the site. A total approximate area of 5 acres for the site is necessary to ensure adequate security coverage for the Facility and to facilitate site access.

### 3.4 Number of Facility Employees

Because of the intermittent use of the Facility as a peaking facility, there will be no full-time employees required. It is anticipated that the Facility will be operated for about eight to ten days each year as a peaking facility. During the periods of usage, which are assumed to be twelve hours per day, there will be at least two trained ProvGas employees on-site

to operate the Facility. Also on-site at the same time will be the driver of the LNG transport vehicle. As discussed in section 6.4, electricians and mechanics will be on site at various times during the year to perform maintenance.

### 3.5 Plan for Decommissioning the Facility at the End of its Useful Life

One advantage of the Facility is that its useful life will be essentially unlimited. The major components of the Facility will not be subject to operating conditions that will cause them to wear out. Minor items such as valve packing will be easily replaced. The larger components of the Facility will also be easily replaced since they are all portable and are fabricated off-site. In addition, the processes used in the Facility will not generate any waste. Consequently, nothing will have to be removed from or remediated at the site in the unlikely event that ProvGas chose to move or decommission the Facility.

## 4.0 Support Facilities, Impact Analysis and Environmental Characteristics

### 4.1 Analysis of Support Facilities

The Facility may require various support facilities including roads, electricity, telephone and water.

#### 4.1.1 Roads

Final access to the site will be made through the Anderson Avenue Gate on the Navy base at the North end of the site as shown on the site plan (Exhibit B). Based upon discussions with TransGas, a licensed and experienced transporter of LNG, trucks coming to the Facility will proceed by one of two routes outlined below.

For the principal route to the Facility, trucks will follow Route 24 over the Sakonnet River Bridge, to Route 114 in Middletown, and then proceed by way of Stringham Road and Defense Highway to reach Gate 11 at the Navy Base. From Gate 11, the trucks will follow Simon Pietny Drive on the Navy Base to get to the Facility.

As an alternative route to the Facility, trucks will follow Route 138 over the Newport Bridge, and then proceed by way of J.T. Connell Highway, Admiral Kalbfus Road, and Coddington Highway to reach Gate 10 at the Navy Base. Thereafter, the trucks will proceed as discussed above.

On the limited cold weather days that the Facility is anticipated to be in operation, the trucking operation is not expected to impact traffic conditions.

### 4.1.2 Electricity

The electric service, designed to support both the immediate and future operational requirements of the Facility will be 480V, 3-phase, 4-Wire, 250 Amps. This is no larger than many small commercial services. This power capability is readily available on the Navy base already. As noted previously, the Facility will be provided with a backup generator that can supply all electrical needs in the event of a power outage.

### 4.1.3 Communications

Existing telephone wires located near the Facility have the capacity to support all the voice and data transmission necessary for daily

operations of the Facility. This service is also readily available on the Navy base. In addition, during the eight to ten days of operation, the ProvGas personnel on site will be equipped with radios and mobile phones. These communication devices will serve as a back-up to the existing telephone lines.

#### 4.1.4 Water

Water service to the site is available through the water line located at the North end of the site. At this time there are no plans to use any water from this source for the Facility. The only water to be employed in the Facility will be the water/glycol mixture used as the heat transfer mechanism to vaporize and warm the LNG that is delivered to the site by truck. This system will be entirely closed and will rarely, if ever, need replenishing. In the unlikely event that replenishment becomes necessary, it will be implemented by delivery of a premixed fluid to the Facility. The planned toilet for the Facility will not require sewer or water service. There will be no wastewater generated by any other use at the Facility.

## 4.2 Impact Analysis

### 4.2.1 Physical Impact

The site chosen for the Facility is predominately covered by a reinforced concrete slab that is about 18 inches thick. The remainder of the site with the exception of a small sloped area at the north end of the site is covered with asphalt paving. The low profile of the Facility will ensure that the Facility will blend in very well with the existing use of the

surrounding area. The tallest piece of equipment will extend only 20 feet above the surface of the slab and the remainder of the Facility will be considerably lower. All of the Facility will be supported on or above the existing slab and paving.

As previously noted, approximately 900 feet of 12-inch below-ground pipe will have to be placed outside the Facility site to connect the Facility to the existing 99 psig distribution system. It is not expected that this pipe will have much, if any, physical impact.

#### 4.2.2 Social Impact

The Facility will not present any impact on the social environment.

## 4.3 Environmental Characteristics

#### 4.3.1 Measures for Protecting the Public Health and Safety and the Environment

The Facility will be designed using state-of-the-art methods and materials resulting in a finished product that will be both safe and environmentally friendly and is in compliance with all applicable state and federal requirements. ProvGas personnel are trained in the safe operation of these facilities and in the implementation of the plans to be used in case of an emergency. Additional safety-specific design provisions include secondary containment for odorant, the impoundment space in the highly unlikely event that a LNG transport truck spilled its contents, and the onsite and remote system monitoring. The Facility itself will be laid out and located on the site in accordance with the provisions of 49 CFR 193, Liquefied Natural Gas Facilities: Federal Safety Standards and NFPA

59A, Standard for the Storage and Handling of Liquefied Natural Gas (LNG).

### 4.3.2 Noise

There will be essentially no noise associated with the operation of the Facility under normal conditions. In fact, under normal operating conditions, the noise generated would be virtually unnoticed even in a residential neighborhood. In the event of a power outage, the operation of the back-up generator will generate about 50db at 75 feet (about the same as a well-tuned car engine). The operation of the Facility will not be audible offsite.

### 4.3.3 Air Quality

Impact on air quality will be minimal. Natural gas will be used as the fuel for the water/glycol heaters and for the back-up electric generator. The size of the heaters and the generator will be such that no emissions permit will be required.

### 4.3.4 Water Quality

The location of the Facility on this site is expected to have no impact on either the quantity or quality of runoff from the site. Since no water will be used on site (with the exception of the closed vaporization system that will use a water/glycol mixture), there will be no impact on water supplies.

### 4.3.5 Aesthetics

The site chosen for the Facility is located in an area of the Navy base that is industrial in appearance and the Facility will be lower than the surrounding structures and adjacent activities. Consequently, the view of the Facility from the water will be unobtrusive and would blend in with the existing conditions. The Facility will be designed to have a low profile with the highest point being the top of the vaporizer at about 20 feet above grade. As raised, the buildings will be only 15 feet tall and all other equipment will be shorter than the 8-foot tall chain link security fence.

### 4.3.6 Wetlands

The existing conditions of the site and the intended use of the Facility are such that there will be no impact on wetlands.

### 4.3.7 Sensitive Species

The existing conditions of the site and the intended use of the Facility are such that there will be no impact on sensitive species.

### 4.3.8 Habitat Zones

The existing conditions of the site and the intended use of the Facility are such that there will be no impact on habitat zones.

### 4.3.9 Historical

The existing conditions of the site and the intended use of the Facility are such that there will be no impact on historical features.

### 4.3.10 Archeological

The existing conditions of the site and the intended use of the Facility are such that there will be no impact on archeological features even if they existed below the slab or the paved areas of the site.

### 4.3.11 Traffic

The impact on traffic both on and off the base is expected to be negligible. As discussed in other sections of this Amended Application, the Facility is anticipated to be used eight to ten days per year with a maximum of two trailers of LNG per day. The vehicles will primarily arrive before 5 AM, a time of very low traffic on the area roadways, and at a time of year (winter) when traffic is at a minimum anyway. Operating and maintenance personnel will have a similar low impact on the traffic in the area.

Additional details concerning environmental issues can be found in the Draft Environmental Assessment (EA) dated August 21, 2000 prepared by ProvGas for the U.S. Navy under the provisions of the National Environmental Policy Act (NEPA). A copy of the draft EA is attached hereto as Exhibit F.[5]

[5] The final EA is in the process of being prepared. ProvGas will submit the final EA as soon as it is available.

## 4.4 Plans for Handling and Disposal of Wastes

### 4.4.1 Operation Wastes

There will be essentially no wastes generated by the operation of the Facility. The system is designed such that during normal operation, there is no release of either the natural gas or the odorant that is injected into the gas before it leaves the Facility to the distribution system. The quantities of waste products from the water/glycol heaters will be minimal because of the inherent efficiency of the heaters and the minimal number of days (eight to ten days per year) that the Facility is expected to operate. In addition, the size of these heaters will be considerably smaller than would trigger emissions permitting.

### 4.4.2 Construction Wastes

There are several factors that minimize the generation of wastes during construction. The most important is that all major components will be fabricated off-site and delivered to the site for installation. These components include the building, the vaporizer skid and the truck-unload skid. One unusual characteristic of this site is the fact that it is entirely covered with a reinforced concrete slab and that all site construction will be above the grade of the concrete slab. This will have the effect of virtually eliminating any potential construction wastes generated by normal site preparation, such as excavated soils. The construction of the 12 inch below-ground gas pipe running from the exterior of the site to the existing 99 psig distribution system may result in some minor subsurface

soil disturbance, which will be handled in accordance with standard construction industry practices.

#### 4.4.3 Maintenance Wastes

Any wastes generated by maintenance activities would be extremely limited. Because there are no grounds at the Facility, there is no vegetation to maintain. The process area will have to be cleared of shells and other seagull droppings, an activity that will produce very small amounts of waste. Other maintenance activities will not generate any measurable waste.

# 5.0 Need for the Facility and Alternative Analyses

## 5.1 Need for the Facility[6]

### 5.1.1 Overview

Algonquin pipeline provides gas supply service to Aquidneck Island through a single delivery point in Portsmouth, RI, which is fed by a six inch pipe for the last 4 to 5 miles upstream of the delivery station (gate). This single run of 6 inch pipe, including approximately a mile of pipe crossing the Sakonnet River, is a bottleneck to receiving increased deliveries.

Growth in natural gas use on Aquidneck Island has raised consumption to the limits of this available pipeline capacity. New facilities are required to allow ProvGas to continue to accept applications

[6] The Act requires that any application thereunder assess need in terms of the Statewide Master Construction Plan. R.I. Gen. Laws § 42-9-8. Because the Facility does not implicate the Statewide Master Construction Plan, the Amended Application does not address need in terms of that plan.

for gas service for new customers or increases in service for existing customers who wish to install additional equipment. This need for additional gas supply could be met by paralleling the existing pipeline capacity to increase deliveries or through the installation of a facility to deliver a supplemental supply such as vaporized LNG or propane.

ProvGas has evaluated the various supply options and long term supply requirements and determined that the option with the lowest environmental impact and cost is the installation of a LNG transfer station, preferably to be located on the Navy site.

Over the next five to ten years, the projected shortfall in supply will be concentrated in a small number of days where the available pipeline capacity will actually be exceeded for a few hours, something which will occur only on the very coldest days of the year. This is an ideal situation for the LNG transfer station proposed here where supply can be brought in just to cover these infrequent and brief needs. The alternative of expanding pipeline capacity would require a much larger expenditure for added capacity which would only be used a small number of hours each year for the foreseeable future.

The Navy property is the best choice among the sites available for such a facility for several reasons. Its proximity to the loads to be served minimizes the need to add more pipe to deliver this peaking supply where it is needed. The facts that the site has been historically used for industrial purposes and that an existing concrete slab can be used for siting the

facility minimize the environmental impact that would be associated with a green field or less heavily developed site.

### 5.1.2 The Existing System

Aquidneck Island is served by Algonquin Gas Transmission through the Portsmouth gate, the only supply source for the Island. Algonquin has a 6 inch pipe crossing the Sakonnet River and approximately 3 miles of additional 6 inch pipe upstream of the river crossing. Upstream of that point the original 6 inch line has been paralleled by a 12 inch pipe. The river crossing and the 3 miles of 6 inch upstream pipe create a bottleneck to receiving additional supply. Before the bottleneck became a problem for expanding supply to the Island, ProvGas was allowed to expand its contract level on Algonquin pipeline by moving contract entitlements at other points on the same primary lateral, the "G" lateral which also serves the city of Providence area, to the Portsmouth gate. To meet near term growth, which has exceeded historic levels, ProvGas has entered into a short term arrangement with Algonquin. In order to create the supply capability for the additional volumes above the current contract, ProvGas will reduce its Providence area pipeline deliveries during peak hours. This reduction can be accommodated by using LNG capability at facilities in Providence and elsewhere without a problem for the 2000-2001 winter for the volumes required, but will be insufficient for future needs as growth continues.

### 5.1.3 Growth Projections/Future Need

The existing contractual limit at the Aquidneck Island gate station is 775 mcfh (thousand cubic feet of gas per hour). As explained above this has been temporarily expanded to 825 mcfh through an agreement with Algonquin. Long term, there has been regular growth on the Island. For example, in 1986, the projected peak hour usage at the gate station was only 548 mcfh. By 1997, the projected peak hour usage at the gate station was 744 mcfh. Thus, in eleven (11) years, peak hour usage under design conditions grew 36%, an annual growth rate of 2.8% per year. Recent growth has been higher and, given the strength in the economy, is expected to continue to be strong with a number of residential and commercial projects in development. ProvGas is also having discussions with the Navy about the possibility of expanding their firm demand.

Current projections call for the Island to exceed available capacity, including the temporary capacity addition, by the spring of 2001. Without additional capacity, ProvGas will be forced to deny applications for new loads and must refuse to allow load additions for existing customers. The contractual level of 775 mcfh for peak hour supply is all that Algonquin is willing to commit to long term without upgraded pipeline facilities. Existing loads this past winter reached a peak level of just over 800 mcfh and are expected to be about 825 mcfh for the 2000/2001 winter, the upper limit of the temporary agreement with Algonquin. By the 2001/ 2002 winter it appears that ProvGas will see a peak hour load of approximately

875 mcfh, and possibly higher if certain Navy projects converting a portion of their existing interruptible load to firm go forward. Simply assuming the historic level of growth of 2.8% would cause load to reach approximately 1000 mcfh within five years.

## 5.2 Alternative Analyses

### 5.2.1 Expansion of the Existing System

In determining how best to deal with the projected future need, ProvGas considered a number of alternatives including expansion of the existing upstream pipeline transmission system. Given the long lead times and regulatory requirements for any facility project, a viable project needs to satisfy growth needs for at least 5 years, and preferably longer for a costly major project. Discussions were held with and analyses performed by Algonquin to identify the possible approaches for expansion of the existing system. The alternatives presented by Algonquin were: (1) A paralleling of part of the upper portion of the "G" lateral. This proposal was rejected immediately by ProvGas because it was inadequate as a long term solution for upgrading gas delivery to Aquidneck Island. It would not provide capacity to meet longer term needs and it would have left the ProvGas with the same problem faced today in a couple of years. (2) Parallel the existing 6" pipeline upstream of the river crossing at an estimated cost of $3.5 million. This option, as it was proposed by Algonquin, would have provided only about a 15% increase in capacity to 900 mcfh, insufficient for long term needs. Within two years there would

be a need for more capacity. (3) A paralleling of the river crossing itself at an estimated cost of $9 million. This option provided capacity sufficient to cover only 3 or 4 years growth. (4) Both paralleling the upstream 6" and build the river crossing. Only this combination of options (2) and (3) meet even the five year level of need.

Because any new pipeline installed would only serve the needs of ProvGas' customers and would not benefit other pipeline customers, Algonquin stated that it would only pursue expansion of the existing pipeline transmission system if ProvGas paid a surcharge to cover 100% of the incremental cost of service for the facilities necessary including return, income taxes, property taxes, depreciation and appropriate overheads. The projected increase in cost would be approximately $700,000 per year for 20 years for option 2 and $1.8 million per year for 20 years for option 3, the river crossing. These charges would only cover the local lateral capacity and ProvGas would still need to dedicate other Algonquin capacity, existing or new, to move supply from a receipt point on the Algonquin system to the upgraded delivery lateral.

### 5.2.2 Propane Peaking

Following ProvGas' expansion of its pipeline supply capability on the Algonquin pipeline in the late 1980's, the propane facility at Old Mill Lane that had provided peaking capability for Aquidneck Island was no longer needed.

Reactivation of this propane peaking facility (See Section 5.4) was evaluated and found to be undesirable for several reasons:

(a) The equipment at the site would require substantial repair or replacement to achieve a level of safety and reliability consistent with its long term use as a primary supply facility. The estimated cost would be around $2 million but would require an additional $1.8 million to expand the pipeline capacity to carry the peaking supply to Newport. Reactivating the site would also require going through the permitting process.

(b) Because propane is limited to a 30% mix with pipeline supply, a propane peaking facility would only provide about half the peak hour capability as the proposed LNG Facility.

(c) This facility would be ProvGas' only propane facility. The Company's infrastructure, supply contracting, safety training, purchasing and operations are built around LNG as the peaking resource.

(d) Propane interferes with the operation of natural gas fueled vehicles and would cause problems with RIPTA's new Newport bus fleet and other natural gas vehicles on the Island.

### 5.2.3 LNG Peaking Facility Option

The alternative proposed by this Amended Application to address the projected growth is construction of a LNG peak shaving facility. LNG is the dominant peaking option used throughout New England today.

With one exception, all major companies and market areas in our vicinity have substantial LNG capabilities. With the development of Trinidad as a supply source, more LNG is available and it seems likely that it will become increasingly more economical. The technology is well developed and ProvGas has over 25 years of experience in using it as a peaking resource.

ProvGas' existing substantial tank space in Providence and Exeter, Rhode Island and regular LNG fill make it well situated to manage a low frequency, low volume satellite facility as is proposed here. To supply the satellite facility, ProvGas has the option of pulling liquid (i) from the primary regional supply source, the Distrigas terminal in Everett, Massachusetts, where supply is received from Trinidad and Algeria or (ii) from either the Providence tank or its Exeter facility. Near term this ready supply capability eliminates or, at least, substantially reduces the need to have on-site storage for the low frequency/low volume facility proposed here, where the supply can be reliably trucked in as it is needed. This means ProvGas can use the permanently sited vaporizer and simply schedule trucks as part of its normal operations on the few extreme cold days where LNG for vaporization is needed.

Given the very low volume of projected supply requirements over the next few years, or possibly longer, depending on the rate of growth, and the availability of a very suitable long term site, the best option is the

proposed project, a fixed vaporizer that is fed directly by a truck holding LNG.

In its evaluation of alternatives ProvGas also considered adding a very small amount of tank storage capable of holding the equivalent of a small number of truckloads of LNG. That approach would be more expensive, requiring purchase of a tank and other equipment, and given the low frequency of use near term, it was decided that installing a tank was not necessary. Still, one advantage of the Navy site is that it is capable of accommodating installation of small satellite tanks that can economically support higher levels of use if that option is determined to be necessary in the future. Whether this option will ever be needed will depend on load growth on the Island and what happens on the pipeline system. With the enormous changes occurring in New England gas infrastructure and the extensive development of gas fueled electric power plants, other options not available today may become available over the next few years.[7] However, as noted in Section 3.1, in the event that customer need warrants future consideration of storage, ProvGas would be required to obtain approvals and permits similar to those required for this Facility.

[7] For example, any new electric generation facility on the "G" lateral will require a major expansion to reduce bottlenecks on the lateral. Delivery capability to Portsmouth could be positively affected by such changes. (Because of the existing contract it could not be negatively affected.) Further, if the Navy or another customer on the Island wished to build a generating plant, the increased load may support or even require a pipeline based approach.

## 5.3 LNG Peak Shaving as the Best Available Alternative

While the addition of incremental pipeline capacity would be an easy and operationally simple solution, the cost would be substantial when compared to peaking options with much lower fixed costs per unit of hourly or daily delivery capacity. The analysis attached hereto as Exhibit G compares the costs of pipeline expansion and LNG peaking using the Navy site and shows that the net present value of the peaking facility is considerably less than the pipeline option over 10 years.

This result is not surprising. ProvGas today operates or retains contract entitlements to LNG peaking equal to approximately half of its peak day send-out because it is the lowest cost approach to providing supply under peak conditions. Aquidneck Island is the only major area of the ProvGas system not served by a peaking facility and, for the same reasons LNG peaking facilities make sense elsewhere, they make sense here.

The best economic solution is an LNG peaking facility because it is capable of meeting the low frequency, seasonal need at the lowest cost. Based on current growth projections, it will be capable of meeting the Island's supply needs for at least 5 years. This approach also has the advantage of being able to expand to meet higher levels of output to accommodate future growth if better alternatives fail to arise. As an added benefit, it creates a second supply source for the Island so that in the event

of a pipeline outage or other emergency, the capacity available from the Facility could be used to provide supply.

## 5.4 Alternative Sites to the Facility and Estimated Costs of Alternatives Considered

The various sites considered for location of the Facility are identified below:

a. Old Mill Lane Site

This site, owned by ProvGas, is presently the location of a former propane-air facility that has been out of service for many years. The property, located on Old Mill Lane, straddles the town line between Middletown and Portsmouth and the developed portion of the property lies entirely within the Town of Portsmouth. The site is large enough for a mobile facility.

Advantages:

(a) Close proximity to distribution system
(b) Site is already disturbed
(c) Good access
(d) Site preparation would be simple
(e) ProvGas owns the property

Disadvantages:

(a) Wetlands
(b) High water table
(c) Site size precludes use as permanent facility
(d) 8-inch distribution piping on Wapping Road needs upgrade
(e) Property is zoned R-40, which would require change

(f) Reinforcements to the distribution system necessitated by use of this site would alone cost approximately $1,800,000
(g) The cost of developing this site would greatly exceed those of the chosen site.

b. Portsmouth Business Park Site

This site is located in the Town of Portsmouth in the Portsmouth Business Park. The property under consideration is located at the corner where High Point Avenue turns east from the north-south road. The site is approximately rectangular in shape with dimensions of about 500 feet by 660 feet. Because the site is not level, considerable earth moving would be required to use the site.

Advantages:
(a) Good access
(b) Property is probably available

Disadvantages:
(a) Small depressed wetland on property
(b) Considerable connection distance to distribution system and no access to 99 psig system. It is estimated that the cost of connection from this site to the 99 psig system would alone approximate $2,100,000
(c) The cost of developing this site would greatly exceed those of the chosen site.
(d) Property is zoned I-L (Light Industry), which would require change

c. Kaiser Aluminum Site

This site is located on the Kaiser Aluminum property south of Willow Lane in the Town of Portsmouth. The parking lot to the south of the Kaiser Aluminum buildings appears large enough for a mobile facility.

Advantages:

(a) Site is already disturbed
(b) Good access

Disadvantages:

(a) ProvGas does not own the property
(b) Property would probably be very costly
(c) Considerable connection distance to distribution system and no access to 99 psig system. It is estimated that the cost of connection from this site to the 99 psig system would alone approximate $8,100,000.
(d) Property is zoned I-H (Heavy Industry), which would require change.

d. 9 J.T. Connell Highway Site

This site, owned by ProvGas, is the parking lot adjacent to the ProvGas offices in Newport, Rhode Island. The parking lot has dimensions of about 104 feet by 145 feet. The property is zoned CI (Commercial-Industrial) which does not appear to allow the use of the lot for LNG purposes. A variance or special use permit would probably be required. The cost to connect the 8-inch (99 psig) steel gas main from this location to the 8-inch line to the ProvGas distribution system at the intersection of Farewell Street and Warner Street was estimated at $450,000.

Advantages:

(a) Site is already disturbed
(b) Good access
(c) Property is owned by ProvGas

Disadvantages:

(a) Estimated connection cost to 99 psig system of $450,000
(b) Site size would be tight even for a portable facility
(c) Property is zoned Commercial/Industrial, which would probably require change or special use permit
(d) Residential areas are nearby

e. Tank Farm 3 Site

This site is located on the Naval Education and Training Center in the Town of Middletown.

Advantages:

(a) Site is already disturbed
(b) Good access
(c) Property is probably available

Disadvantages:

(a) Environmental concerns due to prior use
(b) Estimated connection cost to 99 psig system of $4,500,000

f. Tank Farm 4 Site

This site is located on the Naval Education and Training Center in the Town of Middletown.

Advantages:

(a) Site is already disturbed
(b) Good access
(c) Property is probably available

Disadvantages:

(a) Site development costs would be substantial due to sloped terrain
(b) Environmental concerns due to prior use
(c) Estimated connection cost to 99 psig system of $3,800,000

g. Tank Farm 5 Site

This site is located on the Naval Education and Training Center in the Town of Middletown.

Advantages:

(a) Site is already disturbed
(b) Good access
(c) Property is probably available

Disadvantages:

(a) Site development costs would be substantial due to sloped terrain
(b) Environmental concerns due to prior use
(c) Estimated connection cost to 99 psig system of $2,300,000

h. Newman Road Regulator Site

This site is located on Newman Road off Aquidneck Avenue in Middletown. The regulator station itself is on a piece of property that is too small for a portable facility. However, the property between the regulator and Aquidneck Avenue is for sale. Unfortunately, the size of the combined property (about 20,000 square feet), precludes its use for the portable LNG facility.

Advantages:

(a) Close proximity to distribution system
(b) Site is already disturbed
(c) Good access
(d) Property is available

Disadvantages:

(a) ProvGas does not own the adjacent property
(b) Site size is too small
(c) Property currently zoned R20A, requiring zoning change
(d) Residential property nearby

i. Green End Road Site

This site is located in the Town of Middletown on the East side of Riverview Avenue. The site is currently used for farming. It abuts

residential housing to the North and what appears to be residential housing under construction to the South.

Advantages:

(a) Close proximity to distribution system
(b) Site is already disturbed

Disadvantages:

(a) ProvGas does not own property
(b) Residential property nearby
(c) Property would require zoning change
(d) Access through narrow roads in residential area
(e) Reinforcements to the distribution system necessitated by use of this site would alone cost approximately $1,250,000

j. Wapping Road Nursery Site

This site is located on the north side of Wapping Road near the intersection of Riverview Avenue in the Town of Middletown. The site is privately owned and is currently in use as a nursery.

Advantages:

(a) Close proximity to distribution system
(b) Site is already disturbed

Disadvantages:

(a) ProvGas does not own the property
(b) Reinforcements to the distribution system necessitated by use of this site would alone approximate $1,100,000
(c) Cost of site may be extreme
(d) Close to residential area
(e) Property would require zoning change
(f) Access through residential area

Additional details concerning alternative sites for the Facility can be found in the draft EA prepared by ProvGas for the U.S. Navy under the provisions of the National Environmental Policy Act (NEPA); Exhibit F.

## 6.0 Cost Analysis

### 6.1 Estimated Construction Cost of the Facility

The total cost of constructing the Facility is developed as shown below.

| Item | Cost Estimate |
|---|---|
| Control Building | $940,000.00 |
| Vaporizer Skid | $425,000.00 |
| Truck Unload Pump Skid | $200,000.00 |
| Outlet Piping | $195,750.00 |
| Installation | $ 40,000.00 |
| Truck Unload Ramp | $ 40,000.00 |
| Truck Spill Impoundment | $ 15,000.00 |
| Flood Plain | $295,300.00 |
| Miscellaneous Site Work | $400,000.00 |
| Overhead and Contingency (30%) | $765,315.00 |
| Permit Fees | $ 25,000.00 |
| TOTAL | $3,341,365.00 |

### 6.2 Proposed Dates for Beginning of Construction, Completion of Construction and Commencement of Service

Attached hereto as Exhibit H is a Executive Summary outlining the proposed dates for beginning of construction, completion of construction and commencement of service. The proposed completion date is October 15, 2001. Start/Finish dates are contingent upon a number of factors including securing regulatory approvals sufficient to permit timely commencement of construction, but the duration dates are relatively accurate estimates of the amount of time needed to complete each phase of the Facility.

## 6.3 Proposed Financing for Construction of the Facility

As with other capital investments, the Facility will be temporarily financed through ProvGas' short term lines of credit until such time when long term financing is deemed appropriate.

## 6.4 Projected Maintenance and Operation Costs

The following cost estimates are based on the assumption that the Facility will be used for one 12-hour shift for ten (10) days each year to provide supplementary gas for the ProvGas distribution system on Aquidneck Island. This assumption is in turn based on the projected need analysis for the distribution system and is valid for the next five years. The maintenance costs are based on the experience of ProvGas with other LNG facilities.

The annual cost for operation assumes that two operators are required for each 12-hour shift for a total of 240 man-hours at a total labor cost of $7,200. Additional operating costs including electricity, telephone and property tax bring the total annual operating costs to $15,000.00.

The annual cost for maintenance is estimated assuming the need for an electrician for forty (40) hours and for a mechanic for eighty (80) hours. The cost of labor for maintenance would be approximately $3,600.00. The cost of materials (e.g. test relief valves, nitrogen bottles, odorant, etc.) is estimated to be $1,400.00. The annual estimated costs for maintenance is therefore $5,000.00.

## 6.5 Estimated Cost to Community such as Safety and Public Health Issues and Storm Damage

There are expected to be no costs to the community as a result of the addition of this Facility to the ProvGas distribution system on Aquidneck Island.

## 6.6 Estimated Cost to Businesses and Homeowners Due to Power Outages

The impact on the Facility due to power outages is nonexistent since the Facility is designed to be totally self-sufficient with the provision of 100% backup power generation capability. In fact, because of the reliability of the Facility, interruptions in gas service will not occur due to power outages and gas will be available at all times of facility operation.

## 6.7 Estimated Unit Cost of Energy to be Produced by the Facility

Like all peaking facilities, this Facility will reduce the need for pipeline service that calls for the payment of large fixed fees that make low volume/low frequency use very expensive. As noted in Section 5.3, attached as Exhibit G is a schedule showing the projected cost of the LNG peaking alternative compared to the pipeline construction option including all the costs associated with the facilities. To simplify the analysis it is assumed that the pipeline option would obtain supply by diverting existing pipeline capacity from Providence where LNG peaking capability above design conditions exists today. This means the commodity cost of the supply is virtually the same under either approach and the dominant cost driver for the analysis is the fixed costs. If we assumed additional pipeline capacity were needed instead relying on diverting existing supply capability, the analysis would be even more favorable to the LNG peaking option. The net present value of the option proposed in this Amended Application when compared to the pipeline option is $7,283,399.

## 7.0 Other Agencies

The following agencies may exercise licensing or permitting authority over the Project.

| AGENCY | REQUIREMENT |
|---|---|
| **Federal** | |
| U. S. Navy | Compliance with the National Environmental Policy Act. See copy of the draft Environmental Assessment; Exhibit F |
| U. S. Environmental Protection Agency | Notification[8] |
| | |
| **State and Local** | |
| Coastal Resource Management Council | Approval by CRMC or waiver of jurisdiction |
| | |
| Public Utilities Commission | Approval See § 42-98-9(d) of the Act |
| Statewide Planning Council | Approval See § 42-98-9(e) of the Act |
| Rhode Island Department of Environmental Management | Notification (see Footnote 8) |
| Town of Middletown, RI | ProvGas will obtain all approvals and local permits to comply with applicable law. |

## 8.0 Conclusion

ProvGas respectfully submits that the Facility meets all the requirements of the Act and the Rules. Accordingly, ProvGas requests that the Board grant a license to ProvGas for the construction, siting and operation of the Facility.

[8] ProvGas has notified RIDEM and EPA of the Project as the Project is located on a superfund site, but no specific approvals of the Project are required from either agency. ProvGas has requested both agencies to confirm that ProvGas will not be held responsible for any existing contaminants at the site. Once filings are made with any of the foregoing agencies/departments, ProvGas will provide the Board with copies of the filings, copies of pertinent information, date of filings and the expected date of decision.

## Glossary of Acronyms

| Abbreviation Acronym | Meaning |
|---|---|
| LNG | Liquefied Natural Gas |
| ESD | Emergency Shutdown |
| RTU | Remote Terminal Unit |
| FACP | Fire Alarm Control Panel |
| IR | Infrared (heat) |
| VFD | Variable Frequency Drive |
| NEPA | National Environmental Protection Act |
| HVAC | Heating, Ventilating, Air Conditioning |
| UV | Ultraviolet |
| PSIG | Pounds per square inch |
| MCFH | Thousand cubic feet per hour |
| GPM | Gallons per minute |
| SCADA | Supervisory Control and Data Acquisition |

Exhibit H

Photos of Naval Station LNG Transfer Station


PRIVATE
PROPERTY
NO
TRESPASSING
31 Anderson Avenue
Middletown, RI
Newport LNG Station
incase of emergency call
1-877-304-1209
Nationalgrid


B
C


USA WASTE SERVICES
401-941-7900


A