

NOVA SCOTIA UTILITY AND REVIEW BOARD

IN THE MATTER OF THE PIPELINE ACT AND THE GAS PLANT FACILITY REGULATIONS



- and -

IN THE MATTER OF AN APPLICATION by PIERIDAE ENERGY (CANADA) LTD. for a PERMIT TO CONSTRUCT a LIQUEFIED NATURAL GAS (LNG) FACILITY at Goldboro, Guysborough County, Nova Scotia

BEFORE: Roland A. Deveau, Q.C., Vice Chair
Steven M. Murphy, MBA, P.Eng., Member
Richard J. Melanson, LL.B., Member

APPLICANT: **PIERIDAE ENERGY (CANADA) LTD.**
Thomas D. Ciz, General Counsel

BOARD COUNSEL: S. Bruce Outhouse, Q.C.

APPLICATION DATE: March 9, 2018

CERTIFYING AUTHORITY REPORT: September 28, 2018

SUBMISSIONS ON REPORT: October 9, 2018

DECISION DATE: **October 31, 2018**

DECISION: Pursuant to Section 14 of the *Gas Plant Facility Regulations*, the Board hereby issues to Pieridae Energy (Canada) Ltd. a Permit to Construct a Liquefied Natural Gas Facility at Goldboro, Guysborough County, Nova Scotia, subject to conditions.

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1.0 INTRODUCTION

[1] This is a Decision respecting an application filed by Pieridae Energy (Canada) Ltd. (Pieridae) with the Nova Scotia Utility and Review Board (Board) for the issuance of a Permit to Construct (Permit) a Liquefied Natural Gas (LNG) Facility at Goldboro, Guysborough County, Nova Scotia.

[2] The application, dated March 9, 2018, included this project description:

The Project includes a natural gas liquefaction plant, liquefied natural gas tanker terminal, a power plant, a marine jetty for loading and other associated marine facilities. The Project is anticipated to produce approximately ten million tonnes of LNG per annum and have onsite storage capacity of 380,000 cubic metres of LNG. The Project is located adjacent to the Maritimes & Northeast Pipeline (M&NP), a 1,400 kilometre transmission pipeline system built to transport natural gas between developments in Nova Scotia, New Brunswick and the northeastern United States.

[Exhibit P-2, p.1]

[3] In its application, Pieridae noted that front end engineering design (FEED) was complete. The FEED will provide the basis for the eventual detailed design and took into consideration current applicable codes and regulations and good engineering practice.

[4] In order to maximize benefits to Nova Scotians, Pieridae stated that it has engaged with various communities, First Nations, educational institutions and trade unions.

[5] The Board is aware that the project site has been cleared, but no other activity is contemplated by Pieridae until the Permit has been issued.

2.0 LEGISLATION

[6] The *Gas Plant Facility Regulations (Nova Scotia) (Regulations)* were enacted under the *Pipeline Act*, R.S.N.S. 1989, c. 345 (*Act*). The *Regulations* provide the legislative framework for the exercise of the Board's jurisdiction in this matter.

[7] Amendments set out in N.S. Reg 137/2005 extended the Board's regulatory oversight to LNG Facilities. The stated purpose of these amendments was "...to add provisions about liquified natural gas plants and to give the Utility and Review Board power to address public safety issues...".

[8] Section 6 of the *Regulations* requires that a permit issued by the Board be in place prior to a proponent initiating construction on an LNG Facility.

[9] The information an applicant must supply the Board is set out in ss. 9(2) and (3) of the *Regulations*:

- (2) The following information shall accompany an application pursuant to subsection (1):
 - (a) the design, capacity and general description of the gas plant facility;
 - (b) [repealed]
 - (c) the procedures for project quality assurance and quality control, including audit and corrective action procedures;
 - (d) [repealed]
 - (e) an employment and training plan that gives first consideration to Nova Scotians and those who are disadvantaged;
 - (f) a commitment to hire employees from the qualified local labour force and use local services where qualified and competitive;
 - (g) a goods and services procurement plan for the gas plant facility and a timeframe respecting the solicitation of tenders for the goods and services that allow Nova Scotia suppliers to participate;
 - (ga) information required by a code of practice;
 - (h) such other information as the Board may require pursuant to subsection 9(1).
- (3) The principles of full and fair opportunity and first consideration for Nova Scotians shall also be addressed as part of the information provided pursuant to clauses (2)(e), (f) and (g).

[10] Section 13(1) of the *Regulations* further authorizes the Board to determine what information is "...necessary or required to carry out its powers and duties...". In addition, subject to the *Utility and Review Board Act*, S.N.S. 1992, c. 11, (*UARB Act*), as amended, s. 13(2) of the *Regulations* authorizes the Board to determine what procedures it will follow on processing an application.

[11] When issuing a permit, the Board can impose terms and conditions pursuant to s. 14(b) of the *Regulations*.

[12] The jurisdiction to engage a certifying authority is found in s. 22 of the *Regulations*.

3.0 THE BOARD'S PROCESS

3.1 The Board's Role

[13] The Board's role under the *Act* in connection with this application is to ensure that, from a public safety perspective, the LNG plant is designed, constructed, operated and, ultimately abandoned, in accordance with the *Regulations* and the *Nova Scotia Code of Practice* for LNG Plants. The Board's role does not include consideration of environmental matters, except to the extent they are addressed in the *Regulations*, nor does the Board's role include any form of economic regulation of the LNG plant.

[14] Under the *Regulations*, the Board can engage a certifying authority (i.e., an independent person or a group with expertise in LNG plants) to state whether in its opinion the *Regulations* and associated standards will be met during all phases of the LNG project. The Board engaged the services of Lloyd's Register North America Inc. (Lloyd's

Register or Lloyd's) to act as its certifying authority and provide recommendations to the Board with respect to Pieridae's application.

[15] On April 13, 2018, the Board issued a Notice of Application and Directions on Procedure respecting the application. The Notice was published in the Chronicle Herald and the Guysborough Journal on April 18, 2018.

3.2 Public Information Session

[16] In its Directions on Procedure, the Board determined that a public information session would be held to provide an opportunity for the public and interested parties to receive information about the proposed LNG project and to make comments on the application. The information session was held on May 14, 2018, at the Goldboro Interpretive Centre, Guysborough County after due public notice. Approximately 100 members of the public, as well as Board staff and a representative of Lloyd's Register attended the session.

[17] As noted in the transcript of the information session, Board staff gave an overview of the Board's role in connection with the application. Lloyd's representative provided background information and described the role it would carry out as the Board's certifying authority.

[18] Questions from the audience were encouraged at the end of the presentations. The only question related to the anticipated timing for the release of the Board's Decision.

3.3 Comments from Interested Parties and First Nations

[19] In its Directions on Procedure, the Board directed that anyone wishing to make written comments regarding the application was invited to send them to the Board

no later than Friday, June 15, 2018. Pieridae was then permitted to file its written response to those comments no later than Friday, July 20, 2018. The Directions on Procedure indicated that upon review of the comments from interested persons and Pieridae, the Board would determine an appropriate process for its review of the application. Depending on the comments filed by interested persons, the Board stated it may decide that a formal public hearing is not required in this matter and could proceed to consider the application by way of a paper hearing process, without any further public notice, including the issuance of the Permit to Construct with appropriate conditions. As noted later in this Decision, the Board has decided that it can proceed with the application in a paper hearing process.

[20] The Board received 197 letters of comment from the public and interested groups by the stated deadline of June 15th. Most of the letters supported the project, while seven letters raised various concerns. Pieridae filed its written response to the comments by the public on July 6, 2018. The concerns expressed by members of the public, and Pieridae's response, are addressed elsewhere in this Decision.

[21] In its application, Pieridae indicated it had engaged with representatives of the Mi'kmaq First Nations community. In recent decisions issued by the Supreme Court of Canada in *Chippewas of Thames First Nations v. Enbridge Pipeline Inc.*, 2017 SCC 41 (CanLII) and *Clyde River (Hamlet) v. Petroleum Geo-Services Inc.*, 2017 SCC 40 (CanLII), the Court clarified the role of regulatory administrative tribunals in relation to Aboriginal consultation. As the Board understands these decisions, the Board must consider whether adequate Crown consultation with First Nations has occurred, if the

concern is raised before it. This assumes both the Crown and any impacted Aboriginal group are aware of a matter before the Board that might require consultation.

[22] Accordingly, by way of a letter dated April 13, 2018, the Board wrote to the Mi'kmaq First Nations community and representative Aboriginal groups in Nova Scotia, to bring the application to their attention, and to give them an opportunity to participate in the process if there were any Aboriginal consultation issues they wished the Board to consider in this matter. A reply was requested by April 26, 2018.

[23] By letter dated April 24, 2018, the Sipekne'katik First Nation wrote to the Board to state it had not been engaged in consultations on the LNG project proposed by Pieridae. Following further correspondence with Sipekne'katik, Pieridae, and the Province of Nova Scotia, a hearing on the matter was scheduled for October 15, 2018. In a letter dated October 2, 2018, Sipekne'katik formally withdrew "its objection to the adequacy of the Crown's consultation with respect to impacts on aboriginal and treaty rights in connection with the proposed Goldboro Liquefied Natural Gas Facility and associated works and activities located in Guysborough, Nova Scotia." The Board concluded that the hearing previously scheduled for October 15, 2018 was no longer required and it was removed from the Board's docket.

3.4 The Board's Continuing Role

[24] It is important to note that the Board's responsibility to oversee the project does not end with the issuance of a Permit. Rather, the Board, with the ongoing assistance of the certifying authority, will continue to monitor the design and construction phases of the project to ensure conformance with the *Regulations*. Upon construction completion, but prior to the start of operations, Pieridae will be required to file an

application for a Licence to Operate (Licence). That Licence will only be issued once the certifying authority has satisfied itself, and the Board, that the LNG Facility has been designed, constructed and tested in accordance with the *Regulations*, and that Pieridae has in place appropriate quality control, quality assurance and process safety management programs such that the plant may be safely put into service. The Licence will include conditions to ensure ongoing compliance with the *Regulations*.

[25] Once the LNG Facility is operating, the Board's supervision will continue to ensure that Pieridae complies with the *Regulations* and the conditions in its Licence. In that regard, Lloyd's Register will conduct regular inspections and audits, reporting their findings to the Board. Should the Facility be found to be operating in a manner which is not in compliance, the Board will take such actions as are necessary up to, and including, suspension or revocation of the Licence.

4.0 THE CERTIFYING AUTHORITY'S ROLE

[26] Under the *Regulations*, the certifying authority's role is primarily to determine whether the LNG Facility is being designed, constructed, operated or abandoned in accordance with the *Regulations*, and to make recommendations to the Board regarding any terms and conditions which should accompany a Permit or Licence issued by the Board.

[27] To date the activities of Lloyd's Register have included:

- reviewing the application for completeness and conformance to the *Regulations*;
- reviewing additional information and clarification provided by Pieridae; and

- preparing a recommendation that a Permit to Construct be issued, subject to certain terms and conditions.

[28] On September 28, 2018, Lloyd's Register, as the Board's certifying authority, filed its Report with the Board. It recommended that a Permit to Construct could be issued to Pieridae, subject to certain conditions. The Report provided:

Recommendations:

Lloyd's Register North America, Inc., as appointed by the Nova Scotia Utility and Review Board for the provision of Certifying Authority and Consulting Services, recommends that a "**Permit to Construct**" for the Goldboro LNG Export Terminal can be issued subject to the following conditions:

Conditions of Acceptance

1. As mandated by the Nova Scotia Department of Energy Code of Practice and in order to maintain the continuation of the NSUARB issued "**Permit to Construct**", Pieridae shall ensure that the Project FEED has been accepted and closed by LR and a DAD demonstrating the CA's approval has been generated and forwarded to the NSUARB, with copy to Pieridae.
2. Pieridae shall ensure the continuous engagement process with the Project CA is maintained and documented throughout all Project phases / gates until commissioned and started-up.
3. Pieridae shall ensure that all Project components and proposed works will be designed, constructed, installed, and commissioned in accordance with:
 - (a) all governing federal, provincial, municipal laws, best management practices and in particular the Pipeline Act, the Gas Plant Facility Regulations, CSA Z726 and the Code of Practice, as amended from time to time,
 - (b) Other industry specifications, guidelines, or codes (e.g. CSA, API, ASME, etc.) deemed pertinent or relevant to the design,
 - (c) The appropriate specifications, guides and codes referenced in the "Basis of Design" documents for the various components of the installation,
 - (d) all applicable industry regulations, codes and standards, as amended from time to time,
 - (e) this Permit, as may be amended, and
 - (f) the application.

The latest version of the regulations shall always be referenced during any reviews, unless otherwise directed by the regulations.

4. Personnel involved in key activities (including Pieridae or their contractors) shall have a good understanding of the requirements of the NSUARB, and shall follow procedures and processes which comply with the ISO 9001 and any other applicable standards.
5. LR shall undertake all necessary actions and provide all services, manpower, supervision and management in a timely manner with due regard for Pieridae's overall project execution schedule to be able to independently assess that the work carried-out complies with all applicable regulations and good industry practises, and is appropriate to meet its intended purpose of operation at the designated location.
6. LR shall review Pieridae and their EPC Contractors audits to confirm suitable quality systems are in-place, as well as design appraisal and surveillance activities as detailed further in the Scope of Work.
7. It should be noted that the Scope of Work related to the CA activities is to confirm compliance with the NSUARB administered regulations.
8. Pieridae shall submit to the CA, on a timely basis and in complete system packages, all design and materials information relating to components and systems required by the Gas Plant Facility Regulations, the Code of Practice and applicable codes and standards referenced. Components or systems of the Proposed Works requiring design appraisal shall be identified by the CA prior to commencement of construction ("Identified Components").
9. Pieridae shall deliver to the CA all design and materials information pertaining to the Identified Components as identified on the maintained Master Document Register (MDR) and, in any event, before commencing field installation of each such Identified Component. If after review of such information, the CA determines that an Identified Component does not or will not comply with the Gas Plant Facility Regulations, the Code of Practice or the applicable codes and standards referenced therein, the CA shall notify Pieridae and, upon receipt of such notice, Pieridae shall promptly (and in any event prior to the submission of an application for a "**License to Operate**") remedy any such non-compliance.
10. Pieridae shall provide reasonable notice to the CA of its intended schedule of activities for the proposed works and shall permit representative(s) from the CA to be on site, as required, to monitor construction of the proposed works.
11. Pieridae shall provide a copy of required permits and approvals, including but not limited to those from federal, provincial and municipal Departments, Boards and Agencies, to the Board and the CA prior to commencing construction of those portions of the proposed works which would be subject to such permits and approvals. [Emphasis in original]

[Exhibit P-10, pp. 4-5]

[29] In a letter dated October 2, 2018, Pieridae provided its response to the comments outlined in Lloyd's Report.

[30] Pieridae's letter provided four comments, summarized as follows:

1. Although Lloyd's described the project as including two liquefaction trains, there is uncertainty at present whether there will be one or two trains.
2. Lloyd's reference to the LNG temperature being minus 192 degrees Celsius should be minus 162 degrees Celsius.
3. Lloyd's description of the marine wharf and its use should be clarified.
4. Regarding Lloyd's condition #3, noted above, Pieridae objected to the phrase "as amended from time to time" on the grounds that it would not be practical to apply unforeseeable future amendments to laws, codes and regulations to the project after the Permit is issued or the design and construction contract has been awarded, whichever is later.

[31] Lloyd's October 9, 2018 response to the respective Pieridae comments provided:

1. The application refers to two liquefaction trains throughout, so it would be inappropriate to adopt Pieridae's proposed wording.
2. Lloyd's agreed the temperature reference should be amended to minus 162 degrees Celsius.
3. Lloyd's agreed to Pieridae's suggested amendment.

4. Lloyd's disagreed that a change was necessary to the conditions, noting that it has processes in place to accommodate requests for substitutions to, or exemptions from, the *Regulations*.

[32] As noted later in this Decision, the Board has accepted the certifying authority's recommendations with the above noted changes. The proposed conditions are incorporated in the Permit.

[33] While they are not included in the conditions noted above, Lloyd's letter, dated September 27, 2018, outlined a number of "Points of Information" on pages 5 and 6. The Board directs that these Points apply to the engagement of Lloyd's in its continuing review of Pieridae's project.

[34] Lloyd's Register will continue to assist the Board in its supervision of Pieridae and the LNG Facility through all phases of design, construction, operation and, ultimately, shut down and abandonment.

5.0 BENEFITS PLAN

[35] In addressing economic benefits, the *Regulations* anticipate that Pieridae will adhere to the principles of full and fair opportunity and first consideration for Nova Scotians. This is to be accomplished by a commitment to hire employees from the qualified labour force and the use of local services where qualified and competitive.

[36] The *Regulations* require that Pieridae file information relating to an employment and training plan that gives first consideration to Nova Scotians, and disadvantaged Nova Scotians. A goods and services procurement plan that gives sufficient time for Nova Scotians to participate is also addressed in the *Regulations*.

[37] The Board notes that unlike the *Pipeline Benefit Plan Regulations*, which specifically require Board approval of a detailed benefits plan, prior to approval of a Permit to Construct, together with ongoing reporting requirements, the *Regulations* only require the filing of information with the application, in relation to LNG facilities.

[38] Pieridae's engagement in relation to Nova Scotians and Nova Scotia businesses is summarized, in the application, as follows:

1.4 BENEFITS TO NOVA SCOTIANS

Pieridae maintains its objective of maximising the economic benefits for the local, regional and indigenous communities. Early in the Project's development, Pieridae engaged with local economic development agencies, the community (through Open House events and the establishment of the Community Liaison Committee), Fisheries (through the Fisheries Liaison Committee) and First Nations groups, to identify opportunities and businesses that could provide labour, goods and services to the Project in order to maximise the Nova Scotia content, as well as working with local educational institutions to identify local training opportunities.

Further, a special needs collective agreement was ratified on 3 May, 2017 between the Nova Scotia Construction Labour Relations Association (as Pieridae's agent) and each of the fifteen unions involved in providing the workforce to the Project during its construction. Together with existing collective agreements, this agreement provides the terms of engagement with local tradespersons together with the training and employment opportunities for qualified First Nations members, women and local residents. Pieridae also has in place a communication plan with Nova Scotian Mi'kmaq First Nations.

As required by Clause 9(2)(e) to (f) of the Gas Plant Facilities Regulations, Pieridae, and its third party contractors, are committed to providing employment, training and contracting opportunities firstly to Nova Scotians, where their skills, qualifications and businesses satisfy the employment and contracting requirements.

[Exhibit P-2, p. 2]

[39] There has been no opposition expressed in relation to Pieridae's economic benefits proposal. The application has received considerable support from local unions, tradespersons and businesses, as evidenced by numerous letters of support received by the Board.

[40] In the Review Panel Report dated March 3, 2014, generated pursuant to an Environmental Assessment under the *Environment Act*, the panel made the following observation with respect to procurement opportunities:

...The proponent's website offers continuous public access to Project information, advertises opportunities for consultation, solicits public feedback on Project-related issues, and provides a mechanism for interested vendors to register with the Project. The website will also serve to advertise procurement opportunities during the implementation stage of the Project.

[Exhibit P-15, p. 62]

[41] The Board is aware Pieridae's website has a registration mechanism for interested vendors as described in the Review Panel Report.

[42] The Board is satisfied Pieridae has shown sufficient commitment to the guiding principles set out in the *Regulations* to proceed with issuance of a Permit to Construct at this stage.

[43] In order to supplement the record, the Board requires Pieridae to supplement its description of Nova Scotia benefits, by filing the following, within 30 days of this Decision:

- (a) a copy of the special needs collective agreement ratified on May 3, 2007, discussed in paragraph [38]; and
- (b) a copy of the Public Tenders webpage from Pieridae's website, including the vendor registration form, together with confirmation the website will serve to advertise procurement opportunities, in a timely manner, in relation to the construction phase of this project.

6.0 PUBLIC COMMENTS

[44] As noted earlier in this Decision, the overwhelming majority of the public's comments were supportive of Pieridae's application. Of the 197 separate documents received from the public and interested groups respecting the application, the Board accepts Pieridae's view that only seven letters/emails fell under the category of

expressing concern. The other 190 letters were all supportive. The concerns expressed by members of the public, both at the public information session and in their letters filed with the Board, ranged a variety of topics.

[45] Pieridae filed its response to the public's comments on July 6, 2018. In its letter, Pieridae grouped the various concerns into the following categories, which the Board agrees are reflective of the topics raised:

- GHG emissions / impact on cap-and-trade
- General discomfort with the plant being built
- General safeguards in place
- Road traffic during construction and after
- Consequence of explosions
- Concerns about spills on land and water
- Noise levels
- Tanker safety during storms
- Noxious vapours
- Light pollution
- Equating GHG emissions with public safety
- Economic feasibility
- Danger to the environment
- Request a public hearing

[46] The Board has further grouped the above items into the following general headings, which the Board will address, in turn.

6.1 Environmental concerns, including GHG emissions/Cap-and-Trade

[47] Six of the seven letters of comment received by the Board expressing concerns about the proposed project outlined concerns with respect to its impact on the environment, including its contribution to an increase in the Province's GHG emissions, the project's impact on the Province's cap-and-trade system, and its impact on climate change generally.

[48] The following letter generally sets out the scope of the concerns expressed in these six letters:

...I have heard people talk positively about the jobs it will bring to an area short on consistent employment and economic stability. And I have also heard others, with their concerns over the plant's impact on the environment given the high emissions volume, as well as the potential safety issues.

The media has reported a great deal about the project, size, location, cost, regulations, and the players, etc. But what I am not hearing now is the impact this LNG facility will have on Nova Scotia's cap-and-trade pricing system. Given its size as the province's largest GHG emitter, the owner Pieridae will need to buy major credits to offset future emissions.

In reviewing what I have read and researched, even if the facility is built utilizing a best-case emissions intensity benchmark from Nova Scotia Environment, the facility will add over 2.4 million tonnes of greenhouse gas emissions annually; increasing the province's 2022 GHG emissions by over 20%. These staggering emissions should not only be a concern to the NSUARB, but also a concern to everyone living in Nova Scotia.

[Letters of Comment, Exhibit P-8, p. 21]

[49] Two of the letters submitted that the proposed LNG Facility would produce up to 3.8 million tonnes of GHG emissions, representing 22% of Nova Scotia's total GHG emissions target for 2020 (17.1 Mt).

[50] Following its review of the public's comments, Pieridae noted in its response dated July 6, 2018, that the Board's mandate does not include environmental matters.

Pieridae also provided the following response to the concerns expressed on this topic:

Of the concerns that don't fall within the Board's mandate, greenhouse gas emissions (GHG) and the Provincial "Cap and Trade Regulations" were the most common brought forward. The Environmental Assessment Report does consider greenhouse gas emissions and subsequent Environmental Assessment Approval Section 2.2 requires a Greenhouse Gas Management Plan. It states the following:

'The plan will include a full accounting of all anticipated GHG emissions based on detailed facility design, explanation of how major technology choices in the facility design are best-available technology for GHG mitigation, and demonstration of how the facility achieves an overall carbon intensity in line with best-in-class. The plan will also include details on GHG emissions monitoring and reporting, and ongoing GHG management and abatement practices. The GHG Management Plan must include an independent technical review of GHG analysis and estimates. Following the approval of the initial plan, the Approval Holder will then be required to submit an updated GHG Management Plan on or before March 31 of each year to NSE for approval.'

Pieridae has submitted a draft GHG Management Plan to Nova Scotia Environment and is currently finalizing the plan.

Because the Provincial "Cap and Trade Regulations" are not yet available, we cannot elaborate on this subject.

[Exhibit P-9, p. 3]

[51] As noted in its application, Pieridae obtained its Class II Environmental Assessment Approval from the Minister of Environment on March 21, 2014. At the request of the Board, Pieridae filed the following documents from the Environmental Assessment process: Minister's Decision, Conditions, Review Panel Report, and the Terms of Reference (Exhibits P-13 to P-16).

[52] Pieridae's proposal to construct and operate the LNG Facility was registered with Nova Scotia Environment on February 18, 2013. In October, 2013, the Minister of Environment referred the Project to the Nova Scotia Environmental Assessment Review Panel. The Review included an assessment of the proposed project's impact on the environment generally, including, among many other matters, its impact on water resources; atmospheric resources (including air quality and GHG emissions); flora and fauna (including marine life); agriculture, aquaculture and forestry resources; and archaeological resources.

[53] Following an extensive consultation process with the public, First Nations, government departments and Pieridae, the panel recommended to the Minister that the project be approved with conditions. As noted above, the Minister approved the project with conditions, in accordance with s. 40 of the *Environment Act*, S.N.S. 1994-95, c. 1, as amended, and subsection 26(1) of the *Environmental Assessment Regulations*, N.S. Reg. 348/2008. The Conditions imposed on Pieridae include the requirement for various studies, monitoring, management and mitigation plans.

[54] Having reviewed this matter, the Board is satisfied that the public's concerns about the proposed project's impact on the environment, including its potential impact on the Province's GHG emissions, on climate change generally, and its impact on the Province's cap-and-trade system, are outside the scope of the Board's jurisdiction in this matter. As noted earlier in this Decision, the Board's role in this application is limited to considering issues of public safety. The concerns raised regarding the environment, GHG emissions, and climate change, fall under the scope of the Environmental Assessment outlined above, conducted under the *Environment Act*. The concerns respecting any potential impact on Nova Scotia's cap-and-trade system, which was publicly announced October 23, 2018, are also clearly beyond the jurisdiction of the Board.

[55] Further, the Board does note that, in addition to the terms and conditions contained in the Permit to Construct, Pieridae is required to comply with all regulations and conditions imposed by other applicable regulatory agencies, and it must adhere to all laws of the respective municipal, provincial and federal governments.

6.2 Safety

6.2.1 General Safeguards

[56] Two letters of comment opposed to the application noted concern about the general safeguards that will be in place at the proposed LNG Facility to help ensure public safety.

[57] Lloyd's review of Pieridae's application has not identified any specific issues related to general safeguards at the proposed LNG Facility. Further, Lloyd's Report on Pieridae's application indicates that the Facility will be designed to meet LNG facility

design codes, and all project components will be operated in accordance with governing federal, provincial, municipal and industry regulations, standards, requirements and best management practices. Lloyd's Register has also recommended conditions be imposed on Pieridae's Permit to Construct to further ensure public safety. As noted later in this Decision, the Board has accepted these conditions.

[58] Based on Lloyd's review, the Board finds that Pieridae has adequately addressed general project safeguards in its application.

6.2.2 Explosions

[59] One letter of comment opposed to the application noted concern about the potential impact that an explosion at the proposed LNG Facility could have on the surrounding area. In particular, the comment stated that such an explosion could have a negative impact on public safety and property values.

[60] In response to this comment, Pieridae stated:

...a detailed Quantitative Risk analysis of the consequences of an explosion have been carried out to ensure that the risk to staff and the environment are minimised to an acceptable level based on the Major Industrial Accident Council of Canada Risk Based Land Use Planning Guidelines. ...

[Exhibit P-9, p. 2]

[61] Lloyd's review of Pieridae's application has not identified any specific issues related to potential explosions at the proposed LNG Facility. As noted above, Lloyd's Report on Pieridae's application indicates that the Facility will be designed to meet LNG facility design codes, and all project components will be operated in accordance with governing federal, provincial, municipal and industry regulations, standards, requirements and best management practices. Lloyd's Register has also recommended conditions be imposed on Pieridae's Permit to Construct to further ensure public safety. As noted later in this Decision, the Board has accepted these conditions.

[62] Based on Lloyd's review, the Board finds that Pieridae has adequately addressed the risk of explosions in its application.

6.2.3 Spills on Land and Water and Release of Noxious Gases

[63] One letter of comment opposed to the application noted concern about the potential impact that a spill from the proposed LNG Facility could have on the surrounding land and water. A specific concern related to this item was the potential contamination of groundwater and drinking water.

[64] In response to this comment, Pieridae indicated control of any accidental spills will be in accordance with Canadian Standards Association CSA-Z276-18. Lloyd's Register also noted that the site was selected to minimize interaction with sensitive environmental features, such as streams and wetland.

[65] One letter of comment opposed to the application noted concern about the potential impact that the emission of noxious gases could have on public safety.

[66] Lloyd's review of Pieridae's application has not identified any specific issues related to potential spills or the release of noxious gases from the proposed LNG Facility. Further, Lloyd's Report on Pieridae's application indicates that the facility will be designed to meet LNG facility design codes, and all project components will be operated in accordance with governing federal, provincial, municipal and industry regulations, standards, requirements and best management practices. Lloyd's Register has also recommended conditions be imposed on Pieridae's Permit to Construct to further ensure public safety. As noted later in this Decision, the Board has accepted these conditions.

[67] The Board also notes that the issue of groundwater and drinking water was addressed in the Environmental Assessment outlined above.

[68] Based on Lloyd's review, the Board finds that Pieridae has adequately addressed the risk of spills and the release of noxious gases in its application.

6.2.4 Tanker Safety During Storms

[69] One letter of comment opposed to the application noted concern about the potential impact that the proposed LNG Facility could have on marine tanker safety during storms. Specific concerns related to this item were whether large tankers can safely dock and remain tied to the LNG Facility during storms.

[70] The Board agrees with Pieridae and finds that this is not an issue within the Board's mandate. Such an issue should be more appropriately considered under applicable marine transportation safety regulations.

6.3 Traffic, Noise and Discomfort with the Plant

[71] One letter of comment expressed concern about noise during construction and noise emanating from the Facility once it is in operation. Two other commenters were concerned about the potential for increased heavy traffic on local roads.

[72] Regarding noise levels, Pieridae noted that it had modeled sound levels from the plant and found that they would be within approved limits. While the Board accepts Pieridae's assertion, the Board expects that noise levels will be monitored by the appropriate authorities and any excessive noise will be remediated as necessary.

[73] As for traffic concerns, Pieridae stated that as required by the Environmental Assessment Approval, a traffic impact study is underway. Once complete, Pieridae will consult with Nova Scotia Transportation and Infrastructure Renewal to agree on a traffic management plan for the project. Pieridae gave several examples of traffic

remediation measures under consideration. There was no evidence provided that traffic associated with construction and operation of the plant could be an issue of public safety.

[74] The Board finds that noise and traffic are not expected to be objectionable from a public safety perspective.

6.4 Economic Feasibility

[75] One letter of comment opposed to the application tied the issue of GHG emissions to the economics of the project. In essence, the correspondence suggests that with the closed cap-and-trade system proposed by the Nova Scotia government; the corresponding scarcity of offsetting credits; the amount of GHG emissions the project would produce; and, the potential continued tightening of federal standards to fulfill international obligations, the cost of meeting environmental standards might seriously impact the economic feasibility of the proposed LNG Facility.

[76] While this letter of comment raises interesting conceptual issues, they are not issues within the Board's mandate. As discussed, the Board plays no role, in this matter, in relation to compliance with GHG emission standards.

[77] As well, the Board is not Pieridae's economic regulator. Pieridae is not a public utility. It is a private company. The assessment of financial risk, by Pieridae's management and investors, related to compliance with environmental standards, present and future, is not subject to review by this Board.

6.5 Request for a Public Hearing

[78] Two of the Letters of Comment requested a public hearing in relation to this application. The Board assumes these requests express a desire for an oral hearing.

[79] The processing of this application primarily involves a technical review of Pieridae's engineering design work by Lloyd's Register, an independent certifying authority, and a leading expert in the field, so that recommendations can be provided to, and assessed by, the Board.

[80] The Board notes the *Regulations* provide it with the discretion to establish its own processes. Section 12 of the *UARB Act* allows the Board to make its own rules of practice. The *Board Regulatory Rules*, created pursuant to the *UARB Act*, which are applicable to applications made under the authority of the *Pipeline Act*, allow the Board to determine matters by either oral or written hearings.

[81] Given the very technical nature of this exercise; the degree of sensitive commercial and proprietary information protected by confidentiality; the limits on the Board's role; and, the nature of the public comments, many of which are beyond the scope of the Board's mandate, the Board is satisfied that a written process, which has been followed in similar applications, is the most appropriate manner of proceeding. The Board finds an oral hearing is not necessary to complete its review.

7.0 CONDITIONS IMPOSED BY THE BOARD

[82] In addition to the conditions recommended by Lloyd's Register, the Board is authorized under the *Regulations* to direct the inclusion of other conditions.

[83] Additional conditions directed by the Board include but are not limited to: provision of copies of permits and approvals from other authorities; proof of satisfactory insurance; and, provision of suitable security in relation to Pieridae's financial obligations to the Board.

[84] Further, the Permit makes provision for its suspension or termination in specific circumstances, and specifies an expiry date.

8.0 PERMIT TO CONSTRUCT

[85] The Board has considered the application. Taking into account all of the evidence and the *Regulations*, including the recommendations of the Board's certifying authority, the submissions of the public, and Pieridae's responses, the Board finds that it should issue to Pieridae a Permit to Construct the LNG Facility.

[86] As noted earlier in this Decision, the Board has accepted the recommendations made by its certifying authority, Lloyd's Register, with respect to the conditions that should be contained in the Permit to Construct. The Board has also noted other conditions that it requires be included in the Permit.

[87] A draft form of the Permit to Construct will be circulated to Pieridae and Lloyd's Register, with comments to be provided by November 5, 2018. Upon receipt of comments, the Board will issue its Order with the Permit to Construct attached.

9.0 SUMMARY

[88] This is a Decision respecting an application filed with the Board by Pieridae Energy (Canada) Ltd. (Pieridae), on March 9, 2018, for the issuance of a Permit to Construct a Liquefied Natural Gas (LNG) Facility at Goldboro, Guysborough County, Nova Scotia.

[89] The Board's role under the *Pipeline Act* in connection with this application is to ensure that, from a public safety perspective, the LNG plant is designed, constructed,

operated and, ultimately abandoned, in accordance with the *Gas Plant Facility Regulations* (Nova Scotia) and the *Nova Scotia Code of Practice* for LNG Plants.

[90] The Board held a public information session on May 14, 2018, at the Goldboro Interpretive Centre, Guysborough County, Nova Scotia, to provide an opportunity for the public and interested parties to receive information about the proposed LNG project and to make comments on the application. In its Directions on Procedure, the Board directed that anyone wishing to make written comments regarding the application was invited to send them to the Board no later than Friday, June 15, 2018. Pieridae filed its written response to the comments by the public on July 6, 2018.

[91] The Board engaged the services of Lloyd's Register North America Inc. (Lloyd's Register) to act as its certifying authority and to provide recommendations to the Board with respect to Pieridae's application. Under the *Regulations*, the certifying authority's role is to determine whether the LNG Facility is being designed, constructed, operated or abandoned in accordance with the *Regulations*, and to make recommendations to the Board regarding any terms and conditions which should accompany a Permit or Licence issued by the Board.

[92] The processing of this application primarily involves a technical review of Pieridae's engineering design work by Lloyd's Register, its independent certifying authority, so that recommendations can be provided to, and assessed by, the Board. Given the very technical nature of this exercise; the degree of sensitive commercial and proprietary information protected by confidentiality; the limits on the Board's role; and, the nature of the public comments, many of which are beyond the scope of the Board's mandate, the Board is satisfied that a written process, which has been followed in similar

applications, is the most appropriate manner of proceeding. The Board finds an oral hearing is not necessary to complete its review.

[93] Lloyd's Register filed its Report with the Board on September 28, 2018. It recommended that a Permit to Construct could be issued to Pieridae, subject to certain conditions. The Board has accepted these recommendations.

[94] The Board finds that it should issue to Pieridae a Permit to Construct the LNG Facility, with the conditions recommended by Lloyd's Register, and further conditions required by the Board.

[95] An Order will issue accordingly.

DATED at Halifax, Nova Scotia, this 31st day of October, 2018.



Roland A. Deveau



Steven M. Murphy



Richard J. Melanson