

NOVA SCOTIA ENVIRONMENTAL ASSESSMENT BOARD  
KELTIC PETROCHEMICAL AND LIQUEFIED NATURAL GAS FACILITY  
NOVEMBER 2006

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HEARD BEFORE: Dr. Tony Blouin, Chair  
Dr. Ray Cranston, Member  
Ms. Penny Henneberry, Member

PLACE HEARD: Lions Community Centre  
7996 Highway No. 7  
Municipality of the District of St. Mary's  
Sherbrooke, Nova Scotia

DATE HEARD: Tuesday, November 21, 2006

PROPONENT: Keltic Petrochemical Inc.:  
Mr. Shawn Duncan  
Mr. Kevin Dunn  
Mr. Derek Owen  
Mr. Rob Schonk  
Mr. Dave Purvis  
Ms. Janet Blackadar

INTERVENORS: Mr. Kevin McAllister  
  
Municipality of the District of St. Mary's:  
Warden David Clark

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Per: Mark L. Aurini, Commissioner of Oaths

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## I N D E X   O F   P R O C E E D I N G S

	PAGE NO.
THE CHAIRMAN - OPENING REMARKS . . . . .	4
KELTIC PETROCHEMICAL INC. PANEL - MR. SHAWN DUNCAN, MR. KEVIN DUNN, MR. DEREK OWEN, MR. ROB SCHONK, MR. DAVE PURVIS, MS. JANET BLACKADAR - PRESENTATION MR. SHAWN DUNCAN - PRESENTER . . . . .	9
MR. KEVIN McALLISTER - PRESENTATION . . . . .	40
Questioned . . . . .	47
(Evening Session - 6:30 p.m.)	
THE CHAIR - OPENING REMARKS . . . . .	85
KELTIC PETROCHEMICAL INC. - PRESENTATION MR. SHAWN DUNCAN - PRESENTER . . . . .	88
Questioned . . . . .	105
MUNICIPALITY OF THE DISTRICT OF ST. MARY'S - PRESENTATION WARDEN DAVID CLARK - PRESENTER . . . . .	110
MS. KATHERINE REED - PRESENTATION . . . . .	116
OPEN FORUM . . . . .	127

UNDERTAKINGS FOR THE BOARD

PAGE NO.

(1) Keltic Petrochemical Inc. to provide further information on industry standards and corporate responsibility related to potential accidents and other problems surrounding the proposed project . . . . . 192

4 Tuesday, November 21, 2006 - 1:32 p.m.

THE CHAIR - OPENING REMARKS

Okay, folks, good afternoon. I think we'll get started and keep to our schedule. It's 1:30. A small audience today but welcome to the public hearings for the proposed Keltic Petrochemicals project. These hearings are being conducted under the provincial environmental assessment legislation. Just a couple of housekeeping things. First, just so you know, washrooms here are at the back of the room to the right, emergency exits are at both ends. If you have any cell phones or pagers, please turn them off. My name is Tony Blouin, I'm the chair of the Nova Scotia Environmental Assessment Board and chair for these hearings. On my right is Penny Henneberry, a member of the Assessment Board -- sorry, my left, and to Penny's left is Ray Cranston, also a member of the Board, and we, the three of us, are the panel for these hearings. On my right is Jim Gordon, who's the administrator for the Assessment Board, and on Jim's right is Mark Rieksts, who is the legal advisor for the Board. I'll just let you know that the panel members -- we are all volunteers, we are not public employees of the province, we don't report to anyone within the Department of Environment except to

the minister directly. Following the hearings, basically our job will be to prepare a report to the minister and that report will be based on the input that we receive from these hearings. It will also be based on the information that we've received from Keltic and from a number of public and other government department submissions that we've also received. The purpose of an environmental assessment is to consider the likelihood of environmental impacts from a proposed project on the biological and physical environment where it's located, and also on the social and economic factors that are also important in the area. The role of the panel is to make recommendations to the minister. Basically, we can recommend that a project not go ahead or that it go ahead with certain conditions that we advise or that it just go ahead as it's been described by the proponent without any special conditions, but our role is just advisory. In all cases the minister of environment and labour makes the final decision on anything to do with the project and conditions pertaining to it. I'll just point out at the back of the room there where you came in we do have a number of handouts. If you didn't see them,

there's the schedule and agenda for the hearings and sets of regulations and other documents that you can see there. We had sessions yesterday in Guysborough and we're here today in Sherbrooke for this afternoon and again this evening, and for the rest of the week then, Wednesday through to Saturday afternoon, we're in Antigonish. As I mentioned, these are hearings conducted under the provincial environmental assessment process. There's also a federal environmental assessment process which the project also has to go through. The two processes are separate. Under the federal process the federal minister has decided that they will not require public hearings. So, these hearings are strictly provincial. At the end of the day the provincial minister and the federal minister each have to make their own decisions about the project, but the processes will be coordinated as much as possible to avoid duplicating efforts and information. The public hearings don't follow the same rules of evidence as a court of law would, but we do have some basic operating rules and principles. The intention is just to balance -- provide a fair and balanced hearing of all of the issues. It's supposed

to be non-confrontational, so, you know, we require rules of good behaviour when speakers are at the microphone, not to interrupt and so on. The proceedings are being audiotaped for production of a transcript, so after the hearings there will be a full transcript available of all the hearing sessions, and that will be a public document. The transcript from yesterday's sessions in Guysborough will be available for tomorrow's session, so we'll have a printout of that in Antigonish tomorrow. That won't be an edited version, it'll be a draft at that point, but it is available for the public if you want to see it there. Whenever someone comes to the microphone to ask a question, make a presentation or whatever, we'd ask that you identify yourselves and just the area that you live in for the record. The order of speakers is set out in the regulations. First we'll have a presentation by the proponent, Keltic Petrochemicals, so they'll describe their project for you. Following that, then we have presentations from intervenors. For this afternoon's session we have one individual registered as an intervenor, so he will make his presentation. After each of the presentations, there

8 THE CHAIR - OPENING REMARKS

will be an opportunity for you to ask questions relating to that presentation that you've just seen, and at that point we would ask you to confine yourself to questions directly pertaining to the presentation. There will be lots of time available at the end for an open-forum session. If anybody then wishes to make a statement or raise an issue or ask a general question, there's lots of time for that. If you're asking a question, ask it -- please direct them to me as the chair and I'll determine who is best able to answer the question rather than getting into a direct debate between audience members and presenters. Oh, one other thing. The regulations require that anyone who's giving substantial testimony to the panel has to be sworn in in advance. We've already done that yesterday for the Keltic group, so that still pertains. For presenters -- and as I say, we only have one registered this afternoon, and he would have to be sworn in. For members of the audience who just want to get up at the microphone and ask a question or say something, that's not required for you. I think we have lots of time available today, so I don't think our timelines are going to be critical. So, at this point I'm going to

THE CHAIR - OPENING REMARKS

9

ask Keltic to come forward and provide their presentation, please.

KELTIC PETROCHEMICALS INC. PANEL

MR. SHAWN DUNCAN, (Previously Sworn)

MR. KEVIN DUNN, (Previously Sworn)

MR. DEREK OWEN, (Previously Sworn)

MR. ROB SCHONK, (Previously Sworn)

MR. DAVE PURVIS, (Previously Sworn)

MS. JANET BLACKADAR, (Previously Sworn)

KELTIC PETROCHEMICALS INC. - PRESENTATION

MR. DUNCAN - PRESENTER

Thank you, Mr. Chairman. Can everybody hear me okay? I had some problems yesterday, apparently. I'll take that as a yes. What I'd like to do today is just give you a bit of an overview on the project, the components of the project, and then run through generally environmental impact assessments, how we conduct environmental impact assessments, then what are the kind of features we evaluate, and then go through some of the findings of that environmental impact assessment as well as some additional information on legislation and approvals that may still be required by the project. This project is -- the Keltic project

consists of petrochemicals and liquified natural gas, or LNG. What is being proposed here is to build world-class facilities, essentially facilities that could operate on a world/global market. They're going to consist of two major components. One is the liquid natural gas, or the LNG regasification plant, with a 1 billion cubic foot per day capacity, as well as an integrated petrochemical complex, and the petrochemical complex will use the liquids that are in the gas to produce pellets, plastic pellets, for export to market. Just as a quick frame of reference, there is -- the project is in Goldboro. You probably will not be able to see the figure very well, and I apologize. Apparently there are some hard copies of the presentation coming and they'll be available shortly at the back of the room. But the project consists, again, of two main components, the LNG regasification facilities as well as the LNG storage -- or, sorry, the petrochemical complex, and then a marine terminal for the export of those products as well as a terminal for unloading of LNG. We also had a request yesterday to change this figure to include a proposed water impoundment at Meadow Lake. There'd be a dam

constructed there as well as a line to take -- withdraw water for the processing. A little bit of background on Keltic Petrochemicals. They're a private company incorporated in March 2000. They're headquartered in Halifax and were set up to establish the petrochemical complex in Goldboro. The original concept was to utilize the liquids in the Sable gas for the process. In an expansion of the project or looking at global markets, we're realizing that they needed additional liquids than what is currently available and as additional offshore resources come on line they realized they needed additional gas and liquid supply. Now they're looking at -- this is why there's an integration of an adjacent LNG facility to bring liquid natural gas into that facility and use regasified -- put the gas into the pipeline for export but also use the gas in the processing as well as the liquid. MapleLNG Limited acquired the LNG portion of the project in March of 2006. A little bit on MapleLNG. It's owned by 4Gas North America, the majority shareholder, as well as Suntera Canada. 4Gas develops and operates LNG terminals worldwide. Three projects that are of note, there's Dragon LNG in Milford Haven,

Wales that they're involved with developing and constructing, and it's expected to be in operation in 2007. Another facility they're involved in is LionGas LNG in Rotterdam, this is expected to be in operation by 2009. And then Le Verdon LNG facility in France, and that's expected to be in operation by 2011. The Keltic Petrochemicals project also has a number of international partners, partners that bring certain expertise to this industry. These partners are located in Louisiana, in the Netherlands, in Russia, so it's that kind of global market and that kind of expertise that is partnered on this project. In addition, there are a number of local partners in Nova Scotia and they bring to the project again a fair amount of technical expertise but also a lot of local knowledge in the construction of these types of facilities. So, I'm just going to run through quickly the two main components of the project and kind of the associated support facilities that will be required. Again, there's the petrochemical facilities which will include the processing units as well as the export on the marginal wharf, the LNG component which will include the regasification of the liquid natural gas, the

storage and the unloading terminal for LNG ships. As you can expect, there is a lot of power required for these types of facilities, so we're going to talk a little bit about the power requirements that are produced through the cogeneration facility. The LNG terminal, as I mentioned, has marine facilities which can accommodate LNG ships that will come to the harbour to unload their -- the LNG. These ships have a capacity of 250,000 cubic metres. Currently there is planned to have three 162,500 cubic metre LNG storage tanks on the site. This is expandable to six tanks. Essentially what that would do is expand the output of that facility from 1 billion cubic feet per day to 2. And, of course, on site there's the regasification, the heating of the LNG to turn it back into natural gas. A little bit on LNG safety. LNG generally has an excellent transportation, storage and regasification safety record, and this is based on this type of industry operating for many decades around the world. These terminals have been operated in very populated areas. Rotterdam, for example, is a very busy harbour that has this type of use already at that facility or in that location, and it's operated in these populated

areas without a serious single safety incident occurring. Strict design and operation safety standards are applied to these facilities worldwide and they're also independently reviewed by third parties in terms of the construction and operation of these facilities. The petrochemical complex will include what's called an ethylene cracker, a high density, linear low and low density polyethylene plants and a polypropylene plant. You can see there's a typical example of what these facilities would look like when they're built. I'll talk a little bit about polyethylene and polypropylene. These are the base materials used in the manufacture of a wide array of products, parts for automobiles, construction materials such as roofing or floor tiles, consumer products, film, toys, plastic bags, medical devices, packaging materials, textiles, the production of carpets or clothing. Here are just some examples of how -- again what these type of facilities look like. There's a typical reactor on the left and also another conceptual site layout on the right. Again, another type of reactor that is used as well as the storage tanks that will be on site for storage of materials. I've talked

a little bit about the power facility. The requirements -- when the plant is fully operational, all phases, it will require about 200 megawatts of power. Instead of the project being reliant on power from Nova Scotia Power's energy grid or electricity grid, the intent now is to build and operate a cogeneration facility on the site. It will generate electricity using the natural gas that's brought in to power the facility. A byproduct of that process is steam and heat, the steam and heat will be recovered and used in the processing on the facility as well as heating the buildings and that kind of thing. I mentioned shipping of materials. The marginal wharf will be used to ship and export materials, bring materials in, but primarily ship materials out. The finished product will be shipped both by land and by sea. This is an example of some storage silos that would be -- are being proposed for the marginal wharf for the loading of containers. Associated with the project as well there are other on-site utilities or services. This would include water supply and treatment of the water, underground infrastructure such as cables, storm water management systems, things of

that nature. There is waste water treatment for sanitary sewage, for storm water, for process water. The site themselves -- the facilities themselves will have dedicated fire and security services on site, and of course there's always the roads and properties that require maintenance on the facilities as well. I've talked a little about why Goldboro. It's been talked about, why would you locate a facility like this in the location -- in this location. Generally speaking, Nova Scotia is very well placed geographically with locations -- or proximity to supply of LNG on a worldwide basis. With respect to shipping, Nova Scotia is much closer to areas of the world such as Russia, the Middle East and Africa where this product could come from. In fact, it's closer by shipping by a number of days as well when you compare it to facilities that are currently in place in Cove Point, Maryland as well as Sabine Pass in Texas. So, geographically the shipping distances for the LNG supply are much closer. We're also very well positioned in terms of accessing market for final product both here in Canada and in North America. Another feature associated with the site is the

existing natural gas infrastructure. Sable is currently located there with their facilities as well as the Maritimes and Northeast Pipeline system for the transmission of gas. The gas that will be brought in that's not used in the processing will be transported on the Maritimes and Northeast system to be used in -- by industrial and residential users in Nova Scotia and New Brunswick as well as transportation to the Northeast US. In addition, when Sable was first developed the municipality there recognized the fact that this infrastructure would be, you know, conducive or would be attractive to additional industries coming forward, so they established the Goldboro Industrial Park and zoned that area as heavy industrial to accommodate -- and actually to -- it contemplates and actually promotes the use of that area for petrochemical or natural gas complexes. That site, the Goldboro Industrial Park, currently contains the SOEI gas plant as well as the Maritimes and Northeast Pipeline facilities. It also has corridors and is being looked at or evaluated for bringing the additional offshore natural gases onshore. For example, the Deep Panuke project is currently being

planned to be brought ashore there. It also has an ice-free deep harbour that is conducive for shipping requirements of the project. So, I want to talk a little bit about the environmental impact assessment that was conducted for the project, or EIA.

Essentially, what is an EIA? It's a planning tool. We use the EIA to determine how a project will affect people, the environment and the economy. The EIA is also used by decision-makers to determine if the project requires additional review, additional permits, essentially to determine if the project will proceed or if there are additional requirements to allow the project to move forward. It also assists us in refining the project design. For example, if through our assessment we determine that the facilities don't meet standards or regulatory requirements, we would require them to change the design to accommodate that and be sure that they meet those standards. Just conceptually how do we conduct an EIA? If you look at the centre box, what we call the environmental setting, that's essentially what -- the environment itself, we start looking at interactions -- and these are the arrows to the left -- we start looking at what the

interactions are between the project and the environment, but we also have to look at what the interactions are from the environment on the project. This is applied to the preliminary project concept design, and through that analysis we develop what's called mitigation, and mitigation is where we look at measures or ways to lessen this environmental effect. This allows us, again, to redesign or finalize the project to ensure that it does meet -- is in compliance with standards, regulations, to ensure there is minimal environmental effect. We then apply monitoring or conduct monitoring to ensure that those predictions are accurately tracked and we can evaluate those. EIAs are generally conducted within a regulatory framework. As the chair indicated, we're in the middle of the provincial environmental assessment process under the Environment Act. This project specifically had been designated as a Class 2 undertaking, it was registered with the province on January 12, 2005, the province then developed what's called the terms of reference. The terms of reference is really a roadmap, a way -- a guidance document that tells the proponent what should be considered in their EIA. This EIA is then subject

to review by an Environmental Assessment Board who's here today, and part of this process that we're undertaking right now involves public hearings. This is what we're doing and what we'll be doing for the next few days. As mentioned earlier as well, we're also undergoing a federal environmental assessment process under CEAA, the Canadian Environmental Assessment Act. The reasons for conducting the federal assessment is that there are a couple of law list triggers, and what this means is that federal agencies have to provide approvals or permits that requires them to conduct an environmental assessment. Two departments specifically are Fisheries and Oceans Canada and Transport Canada. Also, as part of this process, there are what's called expert authorities who participate and review the documents. These departments are Environment Canada, Natural Resources Canada and Health Canada. Through the federal process we produce what's called a CSR or a comprehensive study report. Essentially it's another type of EIA, this gets submitted for review to the federal agencies, and we're currently progressing through the federal process in parallel with the provincial process as well. I've

talked a little bit about what the major elements of an EIA are. As mentioned, we need to understand the environmental setting, what is the local environment where the project is being developed. In order to do this, we assemble environmental baseline information. I'll talk a little bit about this later but really it's conducting a number of surveys and literature searches. Through this information we then assemble what the relevant environmental issues are. This is called issue scoping. Not only does this information come from survey work but a lot of times it comes from consultation, consultation with the public, with stakeholder groups, with regulatory agencies, with First Nations, to help us determine what are the environmental issues of concern. We then, through the -- we also have to look at the local environment, not only from potential effects, but as I mentioned earlier, what are the effects of the environment on the project. We need to understand what kind of conditions, such as waves, tides, wind, could affect the design of the project and how it's developed. We then have to narrow the list of environmental issues down to those that are specifically relevant to the

project. These are called valued environmental components, or VECs, and I'll talk about these a little bit more a couple of slides later, but really these are the backbone of the EIA, this is where we focus a lot of our analysis. We establish temporal and spatial boundaries for each of these VECs, and essentially what that means is we look at them individually and determine is there a certain time of year that these are particularly important, for example is there a migration period or a seasonality associated with some of the -- a certain species that may be located in the area, and we also look at spatial boundaries. Spatial boundaries would change depending on what you're looking at. If you're looking at a physical interaction or a footprint, obviously we would look at that surrounding area -- that and the surrounding area, and if you're looking at something like air emissions you would look at a much larger area, a regional kind of airshed. So, obviously that spatial boundary would be much larger than the plant site itself. We then assess the potential impacts or effects from the project and then we determine if there is a negative effect, or even a positive effect, what is the level of

significance of that effect. And we'll go through exactly how we determine that in a few minutes. We then apply mitigation. As mentioned, mitigation are measures whereby we look at design changes to the project or applying different protection measures that would lessen the effects from a project. And then we go through the process and we -- again, and we assess what are the remaining effects, after we apply mitigation are there any residual effects and what are the significance of those residual effects. We then conduct what's called a cumulative effects assessment. Essentially what this is is you can look at your project in isolation, and the example I use is dust. For example, if you're constructing on a site and you have some dust issues or create some dust, it might be acceptable for your project, but if you have an adjacent project that is currently being constructed and it's generating dust, perhaps the addition of the two makes that issue unacceptable. So, you need to look at your project in the context of other projects that are occurring in the area. So, understanding the local environment. As I indicated, you need to understand or have suitable baseline information in

order to conduct your assessment. This is -- in this project and most projects this is conducted through collecting environmental information in the field or doing field surveys. A number of field surveys were conducted in 2004 to support the EIA. These surveys included a variety of both physical and biophysical surveys, wetlands, fisheries, archaeological, ground water and well surveys, as well as surveys for flora and fauna, or plants and animals. A quantitative analysis was also conducted as part of these efforts. A water quality analysis was conducted to determine what kind of levels of contaminants could exist in existing ground water right now. Also we looked at things such as air quality modelling to determine what are the potential outputs from the facility. Reports were generated with this baseline information and were included in the EIA as appendices to the report. Earlier I described the valued environmental components, or VECs, as really being the backbone of the EIA. Really what these are are the components or the issues that we focus all our assessment and evaluation on. As mentioned, there's a large number of issues or environmental issues identified through

literature searches, through previous reports, as well as through extensive consultation with the public, stakeholders, First Nations, regulatory agencies. We then evaluate does -- if the issue -- does it become a VEC, essentially do we carry it further or forward in our assessment. There are two criteria we primarily use to do this evaluation. First of all, is there a pathway, is the VEC -- will the VEC be affected by the project? For example, if there's a species, a certain species that was identified of interest or of concern, evaluate that species, but if it does not occur within the project area or does not have habitat that's important for the species, then it doesn't have what we call a linkage or a pathway, so this would not be considered a VEC. We also have -- it also -- a VEC also -- you have to be able to measure the effect on it, so there has to be a likely measurable effect on the VEC in order for it to be carried forward in the assessment. So, really what we're doing at this point is narrowing down a large number of issues into those that are focused and that are relevant to the project. So, then we determine -- we need to look at the adverse effects, if there's a negative effect on the VEC what

is the significance of this effect. It can be a negative effect but if it's relatively minor, then that can be acceptable. This level of significance is determined individually for each of the VECs. As mentioned, there are spatial and temporal boundaries that are established to help us through this evaluation and we look at the type of interaction that occurs between the project and the VEC, is it a physical interaction with that VEC or is it a displacement of habitat or is it an impact to something such as air quality that could potentially affect a VEC offsite, then determine if the effect is adverse or negative and then we go through our determination of significance. We look at significance in the context of a number of areas. Primarily there are a number of -- for facilities like that there are a number of regulatory-based criteria that we would look at to determine levels of significance in terms of effects. There could be limits in terms of air emissions or discharges for process water. They could also be risk-based. This is a tool where we conduct human health risk assessment or ecological risk assessment, and what this would do is that if there's an absence of these

standards or regulations these limits would be established by conducting a risk assessment. We would also look at previously established guidance, such as tolerance levels, assimilative capacity, is there something in the literature that would tell us or give us an indication what a significant effect on this VEC would be. Guidance with respect to significance is also provided by federal and provincial authorities. For adverse effects we look at a number of criteria to determine if it is significant. Some of these criteria -- these criteria are, first of all, magnitude, how large of an effect is it, geographical extent, on how large of an area does this effect occur. We look at timing, duration and frequency, in other words how often could this effect occur. Reversibility, if there is an adverse effect does it -- is it reversible, is it likely to correct itself or to be mitigated over time. We look at the ecological and social cultural context of these effects and then we look at things like likelihood, is it something that could occur frequently or is it likely to happen, is it something that we've determined through previous projects that this is something that is a normal practice or normal condition

or is it something that is very unlikely to occur. We're not -- don't have time obviously to go through all the VECs that we have assessed in our document, large document that's available to go through. But as we see there is a number of issues that we did assess. Everything ranging from land use to archaeological resources to forestry, to noise to groundwater. So these are the type of issues that we evaluated as part of the EIA. We made conclusions and I'll just run through some of them just to give you an example of what those conclusions are or what -- are -- you know how EIA -- these are treated. For example, effects on fish habitat we evaluate a number of areas, specifically on the Meadow Lake impoundment as part of the project, as I mentioned process water is required so there will be a raising of Meadow Lake so we have enough water for the facility. We're -- it's currently proposed to raise the level of that lake up to a maximum of two metres. So we'd have to evaluate the assess -- assess the effects of that on fish habitat. What we found is that there's both positive and negative effects from doing that on fish and fish habitat. When we evaluate them we find the impacts are

not expected to affect fish populations locally or regionally. Another issue we looked at was, as I mentioned, was archaeological resources, specifically on the site or near the site there was the location of the Red Head Cemetery. This is an African Nova Scotian burial ground. Aside from the project this site was subject to erosion a number of years ago and was, as a separate activity, these burial sites were removed and moved to a proper location. But as a result we went out and conducted additional archaeological resources that -- or surveys in that area. So what we have found is that that area still is, what we would consider, an area of high potential for archaeological resources. So we would conduct, through this additional survey work and consultation, we'd develop mitigation to ensure that we provide adequate protection if any resources do occur or we encounter those in that area. Also we looked at the effects on terrestrial habitat. Because of the project footprint there will be a loss of terrestrial habitat on the site. This is for terrestrial birds and animals. But it's unavoidable with the type of development we're talking about. We looked at the type of habitat that's -- that exists

there and the type of species that use it. We found it's not what we call critical habitat. So therefore -- these impacts would not be -- are not expected to influence or have a significant effect on the long-term viability of local populations. Another issue of interest, of course is transportation during construction operation of the facilities. There will be additional demands on the local road infrastructure as part of the project requirements. So one of the mitigation or one of the measures that we need to do in consultation with Nova Scotia Transportation and Public Works is to evaluate the existing infrastructure, determine if there are major upgrades or any upgrades required to the road to accommodate this additional traffic and we're currently in consultation with the Transportation and Public Works to determine that right now. There are a couple of -- generally the EIA illustrates that there are relatively few predicted effects that are significant. Two that did come out that require further attention are the socio-economic effects as well as the aesthetic effects. We examined the socio-economic effects and found that, as I mentioned, effects can be both positive and negative.

In this case, obviously there was a very positive effect. The effect of socio-economic or the economic advantages of this project are significant in terms of jobs it'll create, salaries, support industries that will be required as well as things such as taxation that will come from the projects. So those types of things, those types of benefits we felt were a significant effect on the project. With respect to aesthetics, we realized very -- you know, when we got into the assessment, there's no doubt this project will change the visual character of that site as it currently looks. So there -- that is going to be part of the development. However, when we evaluated this against what we would consider a relatively small number of receptors for this issue, the fact that the site itself is planned for industrial -- is zoned for industrial -- heavy industrial uses and that is the plan for that site as well as when you weigh it against the advantages of the project, we felt that the residual effect of this project is what we would consider a medium effect and therefore would not be significant. Very briefly I just want to run through the additional permitting and approvals required for

the project. Regardless of how it may be betrayed -- or portrayed the Environmental Assessment approval is not the end of the road. It's actually the very first step in the number of approvals that are required for the project. Specifically under the Nova Scotia Environment Act, the Activities Designation Regulations there are a number of permits and approvals required for different components of the project. Specifically, the construction and operation of the petrochemical facilities. The construction and operation of a power plant greater than 25 megawatts. The construction and operation of a water treatment facilities as well as a withdrawal required of water that's greater than 23,000 metres per day. Also in the Provincial regulations, there's what's called the gas plant facility regulations. This is a permit or approval that's required for the construction and operation of LNG facilities. It's administered by the Nova Scotia Utility and Review Board. It follows what the Nova Scotia Department of Energy Code of Practice is for LNG facilities. This is developed here in Nova Scotia for these types of facilities and was finalized in July of 2005. These Code of Practices incorporate a general

CSA or Canada-wide standards for the development of LNG facilities. There's also a number of Provincial -- pieces of Provincial legislation that would apply to the project, specifically air quality regulations, Dangerous Goods Management Act, Water Waste and Water Facility Regulations. And the Petroleum Management Regulations. There is also, aside from the Provincial regulations and legislation there are a number of pieces of Federal legislation that would apply. Things like the Navigable Waters Act, The Fisheries Act, various sections of that Act. Species at Risk Act, Canada Shipping Act, Marine Transportation and Security Act, Canadian Environmental Protection Act, Transportation of Dangerous Goods and the Migratory Birds Convention Act. Also under the Federal process, aside from the EA there's a separate process. What's called TERMPOL. This is a technical review process of the marine terminal systems. The TERMPOL process was initiated by the Proponent. And what this process does is it reviews things such as the operational ship safety, shipping route safety, construction and operation of a marine terminal. It also requires the evaluation of -- to conduct a quantitative risk

assessment for system design. And for emergency response planning. This review, the TERMPOL review is coordinated by Transport Canada and the participants in this review process also include other Federal agencies such as DFO and Environment Canada. Also there are municipal By-laws that are -- that will be required for the product to adhere to in this development. These land use By-laws were developed for these types of industrial facilities. And this is what the site is currently zoned for, the project will adhere to those By-laws. So just in conclusion, the Environmental Assessment though is conducted. We evaluated those environmental features, conducted the analysis. The conclusions of the EIA is that all potential negative effects from the project can be successfully managed through mitigation or through system design. The project itself would create employment and enhance personal income from the project. The project is in compliance with all the planned industrial uses of this location. In addition, it also meets the requirements -- or not requirements, but the guidance with respect to the Nova Scotia Department of Energy, paper on Energy Strategies for Nova Scotia. This paper or this

direction talks about the development of petrochemical facilities and what would be required or what would be, I guess, some guidance on how this industry would be developed. The project can be constructed and operated in a safe manner. As mentioned these industries have a long safety record. They also have a number of standards that would be required. It is one of the most -- both of them, the petrochemical industry and the LNG industry are one of the most highly regulated industries in the world. There's standards and regulations that apply to almost every facet of their operation. And there are a number of additional regulatory permits and approvals that are still required by the project and so there are some further steps that will be required as the project proceeds further along the lines towards construction and operation. That's the end of the presentation and we're available for questions and ---

THE CHAIR

Yeah, we do have a lot of time for questions I think. If anybody has one, just please come up to the microphone and as I said, identify yourself and the area you live. I'm sorry -- yeah, sure.

MS. Breen

Sorry about my back. Hi folks. My name is Wendy Breen from Spanish Ship Bay. My husband Rick and I are born and raised on this shore but like a lot of people from this shore we've moved away because there just wasn't any opportunity to provide our children, the children that we were to have, with the things that we wanted to give them. We saw how hard our parents worked so like a lot of Maritimers, we went west. And the two things that I wanted to address to what this young man said, one obviously -- sorry about my back. Can you all hear me. One was the socio-economic impact. We all know how hard it is to make a living here unless you've got a good government job. Or you happen to win the lottery. You struggle. We make mortgage payments, you make car payments. I'm not saying people in prosperous places don't do those things but they do them with much more ease than we do here. The other thing that I really wanted to talk about was aesthetics. And aesthetics to me means beautiful. Because we left home and because we followed our dreams and we worked where there was work, we spent a few years in Canada's petrochemical valley, south of Sarnia where from my

kitchen window I could see Polysar, Petrosar, Shell, Imperial Oil, dozens of refineries, LNG, I think -- I don't know a lot about exactly what these things are, but what I saw was this glare from every window and I saw what a beautiful thing that was on payday. When my neighbours came home with more in two weeks than my husband and I working in a bank ever dreamed of making. I saw prosperity and when I heard that we have an opportunity here in Nova Scotia to bring that kind of prosperity, not just to folks from Guysborough County but people from Yarmouth who are educated and don't want to go to Alberta have an opportunity to stay home and work. So from an aesthetic point of view those glares are not just a beautiful thing on payday. They're a beautiful thing any time. They bring prosperity to Nova Scotia. So thank you so much for letting me have my two cents worth.

THE CHAIR

No problem. But you didn't have a particular question that you needed to ---

MS. BREEN

No, I just wanted to address. Thank you.

THE CHAIR

Fine, thank you. Was there anyone with any particular questions that you wanted to have Keltic answer in regards to their presentation or project? Okay. At this point then we have one registered intervenor who will be making a presentation. Mr. Kevin McAllister.

MR. DUNCAN

Mr. Chair, perhaps while Mr. McAllister is getting ready, perhaps -- I was amiss in terms of introducing our panel here as well.

THE CHAIR

Oh, sure.

MR. DUNCAN

I'll just take a quick minute.

THE CHAIR

That's fine. Yes.

MR. DUNCAN

I probably didn't introduce myself at the beginning. My name is Shawn Duncan. I'm with Amec Earth and Environmental. Our company was involved with preparing the Environmental Impact Assessment document. I'll start at our table to the far right. We're going to just work our way down through the table. Derek Owens who's with Maple LNG. He's here to help answer any

questions associated with that corporation and as well as any questions about the LNG industry. Next to him Rob Schonk. Rob is with Royal Haskoning out of the Netherlands. They're involved with the design and development of LNG terminals and facilities around the world. So he can assist with any questions associated with the LNG industry in general. Next to me is Janet Blackadar. Janet is also from Amec Earth and Environmental. She assisted in the preparation of the EIA and will also be answering environmental questions. Next to me is Dave Purvis. He's from Stone and Webster. Dave has worked on these types of facilities specifically on petrochemical complexes, one very similar to the one that's being proposed here out in Joffre, Alberta. So he can speak to those type of issues. And at the end of the table is Kevin Dunn, who's the President of Keltic Petrochemicals. Kevin's been involved with the development of the project from the beginning so he has a long history with the project. And can speak to issues associated with the operations of Keltic as a company. Thank you, Mr. Chair.

THE CHAIR

40 Keltic Petrochemicals Inc. - Presentation

Okay. Thank you. Is our intervenor, Mr. McAllister, is he here? Okay, thank you.

Mr. McAllister

Could I just have a few moments please.

The Chair

Okay. Mr. McAllister if you could come forward. We need to get you sworn in and then you can go. Okay, Mr. McAllister is just providing us with some written information on a map I think and we're just going to get those entered in as ---

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Mr. Kevin McAllister, (Affirmed)

The Chair

Go ahead please. We don't really have a way of displaying these maps so I guess -- I'll suggest we'll make them available on the table and if anybody wants to have a look at them they can do so later.

Mr. Kevin McAllister - Presentation

Mr. McAllister

I'd like to thank the Board and everyone for their time and allowing me to ---

The Chair

Mr. McAllister you're going to have to get a little

closer to the microphone if you could.

MR. McALLISTER

I'd like to express my thanks to the Board for allowing me this time to express my concerns regarding the proposed Keltic petrochemical/LNG project. To begin I would like to supply some background information. My name is Kevin McAllister and I live in the District of St. Mary's, Guysborough County, where Keltic Maple intend to develop their project. I've been a registered prospector for the Department of Natural Resources since 1994 and have been in the mining and exploration business for over 25 years. I've held mineral exploration License number 06269 which covers approximately 64 acres of land that will be negatively affected by the Keltic Maple project. Over the past 13 years I've invested a considerable amount of time and money in my gold claims only to have them destroyed by the Keltic project without ever receiving any notification as a stakeholder for this project which under the terms of reference, Section 14 stating, public information program reads:

"This section shall include a description of the various stakeholders for the project and

how they were identified and informed of the project."

Well, I was never identified and informed of the project from Day 1. The results of the public consultation and information sessions shall -- what public consultations -- shall detail what comments were raised and how they were addressed including any comments made by the Proponent. Well, actually I feel these issues have never been addressed by Keltic in their EAR. Keltic has ignored all my attempts to communicate with them over my concerns. And they've refused to even discuss my rights and interests leaving me without any options except the Board and the Minister to appeal to them. Keltic has been aware of my mineral rights for years and has chosen to avoid the issues and file the EAR without fully addressing the mineral exploration licenses and attempting to leave the Board that these issues in the EAR have been dealt with. Furthermore, for over 13 years I've held my mineral exploration license to the property they're now intending to construct their LNG and petrochemical plant on. My license covers both offshore and onshore thereby destroying my rights and interests and leaving

my gold claims unmineable and therefore worthless. Keltic was well aware of the impact the project would have on mining and exploration in the area as noted in their Environmental Assessment Reports stating in Section 11(4):

"The lands taken by the project and its components will remove the potential for mineral extractions from those areas."

Also stating under mitigation, none. Well, no mitigation. It seems that Keltic doesn't seem to want to deal with this issue and is trying to basically sweep it under the rug. This statement of mitigation, none, clearly shows that the lack of concern by the company to address stakeholders even though they continually talk about stakeholders and their concerns. They talk on one hand and yet on the other hand have done nothing as far as myself as a stakeholder to even have discussions. And the mining and exploration industry which was established in the area since 1868. Keltic is not addressing in its EAR except in a superficial manner leaving numerous unanswered questions. I also feel that Keltic's petrochemicals assessment to be misleading to the Environmental Assessment Board.

Stating in Section 9(1)(3) conclusion:

"No effects have been identified for planned and existing land uses. Consequently no mitigation measures are required."

Well, that is obviously untrue. Also in Section 9(1)(1) Keltic states that in paragraph 1:

"No components specific impacts were identified on land use."

They very well knew that the land was used for mining for 150 years and that the claims were there and that not only myself but the people -- other people in the metal exploration business have claims there that were not dealt -- or addressed. They state the site is currently vacant. The lands have been periodically cut but no conflicts with existing onsite land uses have been identified. Well, obviously even going through their EAR in some places they had to deal to a certain point with mineral rights stating that there were claims there but adding no mitigation. In paragraph 4 it says:

"The lands taken up by the project and its components will remove the potential for mineral extraction from these areas. The

potential value of these resources or the future impact of not extracting minerals from these lands is uncertain as no extensive exploration has been taking place on this site nor has the area been actively mined for a number of years."

Well, that's another misleading statement. I spent 13 years developing these claims and for them to say that there's been no exploration by myself and other mineral rights holders is totally false. These misleading statements by Keltic and other concerns I have for the proposed project and their treatment of mineral exploration license holders should be -- need to be addressed. And in conclusion I feel that if Keltic intends to tell people that they're dealing with mineral right holders or stakeholders that we haven't seen no sign of it and to this point their attitude seems to be that they will admit that they are taking away our mining licenses or the mining claims and that they don't intend to mitigate or deal with this in any way. So in order for us to continue with our mineral exploration licenses will definitely become impossible once Keltic gets their permits and so on and so forth

46 MR. McALLISTER - PRESENTATION

and therefore 13 years of exploration and time and money on my behalf will be down the drain without even any consultation as a stakeholder from the company. I'd like the company to come out and address this issue knowing full well that this issue has been on the burner for years. Another thing I'd like to bring up is the -- when Keltic and the Municipality proposed this project they had open houses which I attended. I addressed my concerns to the council and Keltic was well aware of it and we told that we were allowed to apply -- to appeal to the Utility and Review Board under the process. So mineral rights, myself and Hartlen Resources and -- appealed to the Utility and Review Board and Keltic or the Municipality decided that they wanted to have a preliminary hearing to try to get rid of us at that point. Unfortunately for them they lost the preliminary appeal so they had to go back to the drawing board and what they did was they found a clause in the Municipal Government Act by saying that they were going to amend their Municipal Government Act along with their land use By-law that appeals would not be allowed under that obscure clause so to speak. Therefore everyone in the community who had any

concerns with Keltic and the Municipality rezoning these lands lost that chance to appeal leaving us basically high and dry and Keltic and the Municipality getting exactly what they want. In conclusion I feel that a project this size if Keltic is not prepared to deal with stakeholders in a rational manner that this does not bode well for other stakeholders and industries or people in general in Guysborough County and I feel that they should look into these matters and possibly do something for the people of Guysborough County substantially. I thank the Board and everyone for their time. And I'll conclude with that.

THE CHAIR

Okay, Mr. McAllister before you go away I just want to make sure, is there anybody that has any questions for Mr. McAllister.

MR. McALLISTER - QUESTIONED

MR. NEGUS

How far out does your claim go ---

THE CHAIR

Sir, could I just ask you to just use the microphone for the record. We have to be able to get you on the recording. Thanks.

48 MR. McALLISTER - QUESTIONED

MR. McALLISTER

Anyone who wishes to see the relationship ---

THE CHAIR

Just sorry we have to get the question on first,  
please.

MR. NEGUS

He said that he has a mine claim that goes on land and  
under the water. He has mineral rights in that cove?

MR. McALLISTER

Yes, I do.

MR. NEGUS

Well, I can't see how you would be compensated by these  
people for your land.

MR. NEGUS

And I can't see how I would be compensated as a local  
fisherman because I fish that land and he owns it.

THE CHAIR

Sir, again for the record, can I ask you to identify  
yourself.

MR. NEGUS

I'm Colin Negus. I'm a lobster fisherman.

THE CHAIR

Okay. Thank you.

MR. McALLISTER

I would like to add that if anyone would like to see the relationship between the proposed project and the -- and my claims area there are two maps here which show that Keltic intends to put not only their storage tanks and part of their marginal wharf but their pipeline on top of my mineral rights leaving my claims worthless, unmineable and unoptionable. Therefore destroying my rights and interest without even the decency to contact me or consult me and as to what they intend and what their project has. They've had plenty of opportunities over the years to come to me to discuss this issue but they chose not to and tried to basically sweep it under the rug. I feel they should be brought out and that they should -- Keltic should basically come out and say what they intend to do about mineral rights when by saying that they're taking our mineral rights away, extracting the right to years and years of money and work and their answer to that under mitigation, none. I don't think that's acceptable. I don't think anyone would find that acceptable and I think Keltic should rethink this whole mineral rights issue before going any further and I think the Board or

50 MR. McALLISTER - QUESTIONED

the Minister should definitely force Keltic into dealing with these issues and not being -- allow them to just skip around the issues. That's all I have to say for now. Thank you very much.

THE CHAIR

Sir, I think we have another question for you. Perhaps ---

MR. MacDONALD

Good afternoon, my name is Gordon MacDonald. I'm with the Guysborough Regional Development Authority and I reside in Guysborough. Just two questions. And the first question would be in relation to ownership. Who owns the property for which you have a metal claim?

MR. McALLISTER

Well, the property is owned now by the Municipality of Guysborough which bought up the property in order to accommodate Keltic's LNG facility.

MR. MacDONALD

And prior to the Municipality owning the property it was owned by whom?

MR. McALLISTER

It was owned by different owners. My original stake when I staked the property was with Roland Burke.

MR. McALLISTER - QUESTIONED

51

Roland Burke eventually -- has passed away now and the property was sold, part of the property was sold to Mobile Exxon or the Sable project. And ---

MR. MacDONALD

In '97?

MR. McALLISTER

Pardon me?

MR. MacDONALD

Back in 1997.

MR. McALLISTER

Yes.

MR. MacDONALD

And could you provide a copy of the owner's consent to conduct your geological work on this property?

MR. McALLISTER

No, because the municipality in their attempt to stifle the appeal process, basically by not allowing anyone in the community to appeal anything that they'd done basically, so I went to the municipality, and I sent to Mr. Hines, I have a registered letter showing, and their response, and I asked Mr. Hines if I could have permission to enter upon the land to do my assessment work on the claims. I was denied flat out, "Do not go

52 MR. McALLISTER - QUESTIONED

on municipal lands." Therefore, my next option is -- anyone in the mineral exploration business who can't receive permission from the landowner is forced to go to the Minister of Natural Resources and apply under section 100 for access permit. I've done that. The Minister is taking it under consideration now, and we're in the legal process now of whether the Minister which has overall power over this -- whether I'm allowed to go and finish my exploration work on those claims, that that will be up to the Minister and his decision.

MR. MacDONALD

So you've been conducting work over the last 13 years on the property?

MR. McALLISTER

Yes, I have.

MR. MacDONALD

Without the consent of the property owner.

MR. McALLISTER

No, it's not every year I had to -- the way that mining works, I have to -- I'm allowed to amass credits and use those for years where I don't do exploration, and in other years, as in last year, I had to pay a lieu,

fee in lieu, in order to keep my claims because I was not allowed on the property. So now, because I can only do that every five years, I have to apply to the Minister because the municipality will not let me on their land.

MR. MacDONALD

Okay. Thank you. I trust this is an issue that the Board will be interested in receiving the background information on that property.

THE CHAIR

Thank you. Any other questions for Mr. McAllister?

MR. McALLISTER

Anyone wishing to see the maps, I will leave them here so they can examine them.

THE CHAIR

Okay, fine, thank you. And we will enter those into the public record as evidence, as well.

MR. McALLISTER

Okay. Thank you very much everyone.

MR. DUNCAN

Mr. Chair, maybe I could just ask a question of the Board itself. Mr. McAllister has written some questions about the project, or requests. The company

54 MR. McALLISTER - QUESTIONED

then responded to those requests for information, and I'm not sure if Mr. McAllister has received those responses or if they've been posted, what -- the distribution, I guess, of those responses because I think we tried to respond to his concerns or issues with specific reference to some of the legislation that currently exists, that governs the mineral exploration licenses. So I'm not sure if Mr. McAllister has received those responses or not.

THE CHAIR

At this point, I believe the Board has received them. We do have them. They are part of the public record, and they are actually to be found in binders at the back of the room, but I'll just ask Jim to confirm that we have not transmitted those directly to Mr. McAllister at this time, is that ---

MR. GORDON

That's correct. They have not been entered on the public record. We did not receive them in time to enter them. We have a public viewing document here with an evidence number on it, but it is not on the public record at our library or at the Department of Environment & Labour's library, nor at the Antigonish

MR. McALLISTER - QUESTIONED

55

office, but there is a document here that's available for viewing.

THE CHAIR

And they will become part of the public record, it's just that they're not there yet because we only received them recently.

MR. GORDON

Yes, they will be available after noon on Wednesday.

MR. DUNCAN

Thank you, Mr. Chair.

THE CHAIR

Okay. Thank you. At this point on the agenda, we have a lot of time available just for general issues, comments, questions. Perhaps I'll start by asking if any of the Panel members have any questions for the proponent or others. Okay, go ahead.

DR. CRANSTON

Ray Cranston, Environmental Assessment Board. When the LNG is transported by ship and the ship arrives, before it can dock there may be situations where there's weather or the dock is already full of another ship or ships, or whatever the condition would be. I was interested in what's the loss rate of the LNG while

56 MR. McALLISTER - QUESTIONED

that ship would be sitting there? And I understand that would be -- there is a recovery process I assume would be on ships, and how efficient that recovery process is.

MR. DUNCAN

I'll ask Rob Schonk to respond to those specific issues on the LNG.

MR. SCHONK

Okay. First regarding the -- if there is already a vessel on the jetty, that's a matter of planning, so that's not realistic to my opinion honestly.

Otherwise, if the weather is too bad, is too hard wind or the currents are too high, then the vessel is not allowed to enter -- access harbour, and it remains where it should be, more on the open sea. There was another question about losses of LNG. Of course there will be evaporated small part of the LNG because there is some heat leakage, and that will be recovered by so-called boil off gas systems on board and will be put back into the vessel. And that is a process that can remain for a very long time.

DR. CRANSTON

Do you have an efficiency number of that recovery

MR. McALLISTER - QUESTIONED

57

process? Like is it 95 percent recovered or ---

MR. SCHONK

It's entirely recovered.

DR. CRANSTON

100 percent recovery.

MR. SCHONK

Yeah.

THE CHAIR

I had a question. You'd mentioned during the presentation that your rate of send out of gases once the LNG is regasified is initially a billion cubic feet per day and that's expandable to two. I'm just wondering how does that compare with the current existing flow that's going through the Maritimes & Northeast pipeline?

MR. DUNCAN

My understanding is that pipeline is currently designed for roughly 400 million cubic feet per day, and that would essentially be -- there'd be some component of the LNG that's brought aboard or brought ashore that would be transmitted on that pipeline as well.

THE CHAIR

So that's the design capacity. Do you know what the

58 MR. McALLISTER - QUESTIONED

current flow would be, is it up to that capacity?

MR. DUNCAN

Derek Owen probably has a little bit more information on that.

MR. OWEN

Yes. The current design capacity, the 400 that was mentioned by Shawn, is probably the current flow. The actual design capacity of the Maritimes & Northeast line is 600 million standard cubic feet a day. That is the capacity of the Maritimes line within Canada.

THE CHAIR

Okay. Thank you. Any other questions from the Panel? Ray?

DR. CRANSTON

Just for my information about these pipelines, for the Sable gas that comes ashore, it obviously has the heavy liquids in it, and yet for the gas that goes into the pipeline to export the gas, the liquids mostly are removed. What's the difference in a pipeline? Do they require more pumping or a different -- quite a different process to move it with the liquids in it?

MR. DUNCAN

I'll have Dave Purvis just talk about the different

processes for separating out those liquids. As you state correctly, some of those liquids are currently stripped out of the gas now for processing. There are still some that remain in that. That's the targeted feed stock for this project.

MR. PURVIS

The SOIE gas has about 3 percent ethane and 2.1/2 percent propane plus some other heavier fractions like C4s and C5s, and it's important to remove the heavier fractions from the gas before you transmit the gas down the pipeline. So if you leave the heavier components in, like the C3+ material, the propane, the butane, if you leave that in the pipeline, it will condense out in the pipeline. So you have to remove that material which is done at the SOIE gas plant right now. The ethane stays in the gas. It's a light material, it slightly has a higher molecular weight than the methane but it can stay in the gas and it adds BTU value to the gas. The gas that we're going to bring in in LNG has got 8 percent ethane in it and 3-4 percent propane, so there's much more ethane in the gas. We're going to do a deep extraction of the ethane to recover 90 percent of the ethane from that gas, and all of the heavier

60 MR. McALLISTER - QUESTIONED

materials, the propane and the butane. We feed that material into our ethylene furnaces and we convert the paraffinic material to olefinic material which we then polymerize into polyethylene and polypropylene. It's a very simple process. It's practised all around the world. They do it in Alberta, US Gulf Coast, Middle East, Britain, Netherlands, you name it. It's a standard method of making materials, fundamental materials for the production of polyethylene and polypropylene.

DR. CRANSTON

What I was particularly interested in is how does the gas get from Sable here that already has these heavy liquids in it. Do they have to have traps on it or -- I mean to say, it's not ---

MR. PURVIS

Oh, the gas from Sable, from the offshore facility, comes as a two-phase flow mixture. So the heavier fractions are in there. There's some oil in it. This is dirty material. Actually, the pipeline from Sable that comes ashore in Nova Scotia is actually cleaned out. So they put these huge pieces of metal balls down the line to clean it out, and they have a drum at the

MR. McALLISTER - QUESTIONED

61

end of the line that they call a "pig catcher." So they put these "pigs" in the line to clean the line out once in a while, and they catch the "pig" on shore and they take the "pigs" back out to the offshore rig to keep cleaning the line out. So the process of transporting the gas from offshore to on shore is a dirty process. There's lots of nasty, dirty materials in that which are processed at the SOIE gas plant.

MR. DUNCAN

Okay. And when we say "pigs" we're not -- this isn't cruelty to animals, this is just part of the maintenance of oil and gas facilities.

THE CHAIR

Any other questions for Keltic or for any of the other participants? Yes, please?

MR. MacNEIL

Bill MacNeil, retired heavy construction worker related to these projects, refineries, generating plants, whatever. Just regarding the ongoing process for the pipeline from New Brunswick that we're hearing a lot in the media now, what's the status of your project -- through the Chair to Keltic, for -- you know, what's your status if this line does go ahead, understanding

62 MR. McALLISTER - QUESTIONED

that your markets are different for the most part? And what percentage of your supply of natural gas to the American public would be from the project, and is it still a viable situation?

MR. DUNCAN

I'll have Derek Owen from Maple LNG to talk about the projects, potential impacts from other projects. Obviously, you know, we're not here to assess that project itself, but obviously on the business model for this project it has to take into consideration other projects as well. It's just part of the market analysis, so Derek can speak a little bit to that.

MR. OWEN

I think, quite frankly, we, as part of this hearing, don't really feel comfortable and we would not want to get into hypothetical situations. So that's the short answer, I'm afraid. The concept with regard to pipelines in Canada and in the northeast of the United States is extremely complex. As you currently know, there is Sable Gas, that is the only gas that is currently in the Maritimes, line in Canada. And then you have potential, of course, for lots of other potentials. So as a potential you have Bear Head Gas,

as a potential you have Encana Gas, as a potential you have Goldboro Gas, and that's why it is extremely complex. What I can say is that we expect with regard to the hearings that are currently ongoing that we expect the public policy aspects of those hearings rather than commercial interest will hopefully drive the NEB decisions. We fully expect and support the Nova Scotia government in their interventions that will focus on the benefits and the interest of Nova Scotians, and fair and commercial competitive treatment for Nova Scotia business and industry to ensure that that industry is not disadvantaged. Obviously, we have and we will continue to determine out project economics based on all associated cost factors -- and when I say all, there are many, many cost factors quite apart from the one that you've mentioned -- so that we can maintain our project in a commercially competitive environment. Is that the answer you ---

MR. MacNEIL

That's fair. It's not completely ---

MR. OWEN

No.

THE CHAIR

64 MR. McALLISTER - QUESTIONED

Okay. Thank you. Any other questions at all or anyone wish to raise an issue, make a statement? Yes, please?

MR. LES VAN HEMERT

My name is Les van Hemert. I live east of Sherbrooke in a little village called Wine Harbour and it's on the way to Goldboro, and I was born in Halifax 63 years ago, and 34 years ago I came here and found a little place I wanted to buy, and I've been trying to live there ever since. My parents moved away from Halifax up to Montreal and Toronto when I was young, so I haven't lived in Nova Scotia all my life, but I've lived here long enough to want to say a few words about the Keltic project. I support the lady who spoke earlier wishing for more jobs down here in Guysborough County. Had there been more jobs for me, I might have been able to move here years ago. So, in principle, I don't have anything against the Keltic project. What I have against the Keltic project is the location. I think the location in Goldboro is just awful, atrocious, horrendous, and I am appalled at the thought of turning Goldboro into another petrochemical area. I wish we could get the jobs and keep the project, but the location is just the pits. There's no reason for

it, in my opinion, because I think a better location for this project, and to make a much better project, would be to build a new site for this project far offshore, 100 miles from the mainland, where it can have no environmental impact whatsoever on anybody who lives here now or who may wish to come and live here in the future. Now, I'm retired now from day-to-day business but part of my past experience was with the Royal Boskalis Westminster Group based in the Netherlands. I was the President of Hydronamic Engineering Limited, their engineering firm, and I was Executive Vice-President and Director of Beaver Dredging, which was the firm which built several structures for Imperial Oil in the Beaufort Sea north of Tuktoyaktuk in the 1975 to 1985 period. I'm familiar with large volume repositioning of sea floor materials. In my opinion, it's perfectly feasible to put this project offshore 100 miles in between the Thibeault Gas production structures, that exist now and where the pipeline to shore originates, and Sable Island. The water depth at Thibeault is 70 feet, and in between Thibeault and Sable Island is a water depth of 55 feet, which is an ideal water depth for the

66 MR. McALLISTER - QUESTIONED

arrival of LNG tankers loaded, and for economical marine construction using existing floating equipment. So today I'm just going to briefly mention this, and my 15-page description, which I gave to the Board and to Mr. Dunn in Goldboro on October 3rd, proposing that he consider, and the Board consider and Nova Scotians and Canadians consider, the construction of new land purposely built for heavy polluting industry very far from the mainland so that we preserve the mainland for inhabitation. I've called this new land Baby Sable Island, because it'll look like a little pinprick in the ocean alongside the 22-mile long Sable Island a few miles offshore from it, as I say in 55 feet of water depth. This island will have a very large enclosed harbour in order to handle large vessel movements, and it'll have two fixed-wing airstrip runways to handle fixed-wing aircraft, and it will have any amount of land, in one case I've studied 62 acres of land for industrial purposes. As for jobs, this amounts to an expansion of the project so there will be more jobs. There will be all the jobs originally associated with the LNG and the petrochemical, plus the additional jobs of building the site, the project location, plus the

additional permanent jobs of all those folks in Goldboro and on the shore east of here who will find work transporting materials and supporting, in any number of ways, a large offshore project, because Goldboro and Country Harbour and Isaac's Harbour are the nearest points on the mainland, and the new highway to Antigonish will no doubt still be needed. So a final advantage to consider this and why the cost of it, which I've estimated at somewhere between 1.5 and 2 billion dollars, or roughly another 30 to 40 percent on top of the original 4-5 billion estimate, is that this project site will remain as a permanent feature of the environment long after LNG dries up. And long after LNG is gone and Petrochemicals are gone, we're still going to have an offshore industrial location which comes with a sheltered harbour and airstrips, and might be usable one day for a nuclear power plant, or some kind of power generation facility, or another oil project. Who knows. And in the meantime, the mainland is not affected, habitation is not at risk, the environment is not at risk, tourism is not at risk, mining claims will not be at risk, and we'll have all the jobs Keltic now talks about plus more besides, and

68 MR. McALLISTER - QUESTIONED

I see Nova Scotia being a leader in environmental stewardship if it would reject this project on the mainland in favour of putting it offshore. So that's -- if anybody would like more information on this, I have written it in a 15-page submission to the Board, and Mr. Gordon tells me it's available to the public in detail with pictures and artist's sketches and so on. So thank you very much.

THE CHAIR

Okay. Thank you. Is there anybody that has any questions of this concept, anything you wanted to ask? Okay, thank you. And I guess a final call, anyone else who wanted to raise an issue, ask a question? I think we have one, if you could just identify yourself, please.

MR. BEAVER

My name is Rene Beaver, I'm a businessman in the community. I reside in Glenale at the present time. In the past 7 years I've been Chairman of the Guysborough County Regional Development Authority. I've been in business in this area for 33 years. My father moved here in 1960 and successfully ran a business for 28 years. My great great great

grandfather had three sailing ships in 1857 travelling around all the outposts and the ports and delivered goods and services to all these people throughout the province, so I've seen the good and I've seen the down sides. I haven't seen economic growth very good since 9/11, it's been decreasing, it's still decreasing. So I just wanted to touch on that a little bit. My position is a volunteer position. Our board is comprised of other volunteers representing communities throughout Guysborough County. We also have ex officio members from ACOA and Nova Scotia Department of Economic Development. I am also a father who had to see my three sons forced to leave this beautiful part of the world to find meaningful employment to provide for themselves and their families. And I might stress that I think, according to some of the statistics, that we're probably in the vicinity of between 28 and 30 percent of out-migration in Guysborough County. They are now spread around the world. As a parent and a grandparent I feel we must seize every opportunity to create opportunities for our young people to have the option to remain close to home, if they so desire. Sadly to say, we do not have that option. As an

70 MR. McALLISTER - QUESTIONED

organization, the GCRDA has strived to achieve a balanced approach to economic development. Our core operation has been focused on community economic development and we work closely with community groups at businesses to promote and strengthen our communities. We also focus significant resources to investment attraction. We do this because we realize that the very existence of our communities is threatened if our economic situation does not improve. Living in a rural community presents many, many challenges today as we face the trend towards urbanization. No county in Nova Scotia has faced the out-migration of its residents to the same degree as Guysborough County. As a community economic development organization, we have fully considered the Keltic Maple project proposed for Goldboro. We have sought to inform ourselves in a balanced manner considering the positives and negatives that brings change to a community and a region. We are aware that Goldboro area is an area that has long had a history of industrial activity contrary to the numerous letters to the media that portray these lands as virgin wilderness. The very name Goldboro in itself should

serve some indication of that industrial history. As an organization and a board, we support Keltic Maple project. We do so based on an expectation that the Canadian and Nova Scotia regulatory system will protect the communities that we care about and the proponents will be good corporate citizens. Later in the week, the manager of our petroleum office, Gordon MacDonald, will be making a presentation that will elaborate on the issues of importance to the GCRDA. I encourage you to fulfil your role as a board in listening to the local community that is most impacted by this development. Our organization has been very involved in the development of this project and identified very closely with the project in here -- in Guysborough County. We have had a strong support from our residents, and intend to play an intricate role assuring that our residents derive maximum benefits from this development. Thank you for coming to Sherbrooke today to hear from us and the residents in the area.

THE CHAIR

Okay. Thank you. Any questions for Mr. Beaver on that material? No?

72 MR. McALLISTER - QUESTIONED

MR. BEAVER

Thank you.

THE CHAIR

Okay. Thank you. And I just want to make sure, is there anybody else in the audience today that wishes to make a statement, ask a question before we adjourn?

Okay, yes?

MR. McALLISTER

Yes, my name is Kevin McAllister, and I was just wondering, I was going through the Environmental Assessment for Keltic, and in Table 14-5-3 there were -- it's a summary of major concerns raised in Antigonish in the open houses to these, and the responses to these from Keltic. And I notice under "Safety" it says:

"Will Goldboro be in danger in the event of an explosion?"

Keltic's response seems to be:

"Although a large amount of energy is stored in LNG, it cannot be released rapidly enough to cause an over pressure associated with an explosion."

So does that mean that there is no chance of an

MR. McALLISTER - QUESTIONED

73

explosion when you're LNG?

THE CHAIR

I'll ask Keltic to respond to that.

MR. DUNCAN

Rob Schonk from Royal Haskoning can address that issue.

MR. SCHONK

It is correct that there's hardly any chance on explosion. There could be a chance that's in case of leakages, and in case of in a confined space, let's say. For instance, near the regasification area where the LNG -- the liquified natural gas -- is vaporized and there occurs a leakage, because of the large number of piping and equipment, it could be considered as being a confined area. And that could occur an explosion, although the explosion is rather limited.

MR. McALLISTER

Well, I noticed in doing some research that there have been other leaks and explosions in LNG and I was wondering why your company would say that the chances of an explosion are next to none, basically, the way it was put, the question was answered. I bring to the fact in January 19, 2004 that at least 27 people were killed, 72 injured when a huge explosion caused by an

74 MR. McALLISTER - QUESTIONED

LNG leak in a pipe ripped through an LNG plant in Algeria, again a much smaller facility than the one pitched for Goldboro. The blast was reportedly felt many miles away, fire raged for 8 hours causing approximately 1 billion US property damage.

THE CHAIR

Is Keltic able to comment on that event?

MR. SCHONK

Yes. That accident is well known, and it's an LNG terminal but it's an LNG liquefaction terminal, and that means that the natural gas is liquified on the terminal over there in Algeria, and that happens with absolutely other equipment than foreseen on the terminal here in Goldboro. So in that case, it is not comparable with the terminal and the situation over here.

MR. McALLISTER

I see. Okay. Thank you very much.

THE CHAIR

Maybe could I just clarify then, is there some fundamental difference with the liquefaction facility as opposed to a regasification ---

MR. SCHONK

Yes.

THE CHAIR

Could you just -- a few words to explain what that is?

MR. SCHONK

I'm not a specialist on the liquefaction terminal but compared as -- and I don't know if Dave Purvis can clarify something on liquefaction terminals, but in case of regasification LNG is warmed up and vaporized, and liquefaction, the other way around, of course, with other types of technologies, but that's -- maybe Dave can say ---

THE CHAIR

Okay. What I was asking particularly, though, in terms of the risk of explosion, is there something about a liquefaction terminal that carries a greater risk?

MR. PURVIS

I would say yes, not in terms of the materials handled but in terms of the complexity of the operation. There is a significant amount of equipment in a liquefaction facility, so the more equipment you have, the greater the risk. But just to clarify exactly what happened in Algeria, there was a leak of LNG. The LNG found a source of ignition, and the source of ignition was a

76 MR. McALLISTER - QUESTIONED

fired furnace. It was a boiler plant that was adjacent to the LNG facility. When the LNG leaked into the furnace it got into the firebox, found the source of ignition and the explosion occurred in the firebox of the furnace. That's my understanding of that incident. In this LNG facility, there is no fired heater anywhere near our LNG regasification facilities or the storage tanks. So this was a very unique incident in an LNG facility, but don't relate the explosion to the LNG itself. The LNG found the source of ignition which was a very badly located boiler plant near that facility. Now, if you'd like the background on the explosion, it's being investigated intensively, I can give you the summary of the report that came out of that incident in Algeria. I can actually probably give it to you today, pull it off my computer.

MR. McALLISTER

Okay. Thank you.

THE CHAIR

Okay. Thank you. I guess we've got a couple of people.

MR. BEAVER

Rene Beaver speaking again. From your past experience

MR. McALLISTER - QUESTIONED

77

in research that you've done, what percentages of accidents have happened with LNG in petrochemical plants to your knowledge?

MR. DUNCAN

Sorry, did you say accidents?

MR. BEAVER

Yes.

MR. DUNCAN

As you know, in any kind of business, if you go to the doctor, you go to the hospital, you go under the knife, they'll tell you there's always a degree of risk involved. No matter what you do in something of this size there's going to be a certain amount of risk involved, but there are regulatory boards, and regulatory systems are put in place to kind of stop this kind of thing. So we have to be realistic here about the approach to what we're doing and what kinds of questions we're asking, too.

MR. PURVIS

Yeah, it's Dave Purvis again from Stone & Webster. LNG natural gas is very unique. It has a very slow burning speed. So even if you had a big vapour cloud of LNG be released, the flame speed is so slow that you don't get

78 MR. McALLISTER - QUESTIONED

any -- and actually, I'm a combustion person, as well -- you don't get any pressure piling because it burns so slowly. With other materials that burn very fast, there's an increased chance of an uncompliant vapour cloud explosion. The only risk occurs if you get a lot of confinement. So if you get a leak of a flammable material and there's a lot of confinement, then there is a chance that when it starts to burn there's a reflection from the flame front and you get pressure piling, and that leads to an explosion. And that's why offshore facilities -- let me just make a statement around why people don't design petrochemical plants offshore. When you design an offshore platform, if you look at the way an offshore platform is designed it's very compact, everything is packed in there like a sardine can. If you look at an onshore facility, it's spread out. And the reason for that is we're trying to minimize confinement. We have safe spacing distances between equipment, etcetera, etcetera. So once you go offshore with platforms they become a much more dangerous piece of -- facility that's handling flammable materials.

MR. BEAVER

So what risk would be involved in this kind of an operation?

MR. DUNCAN

Yeah, I'm just going to -- just on the heels of that I'm going to have Rob Schonk talk to LNG, the industry specifically and the type of risks and the kind of safety record that this industry brings.

MR. SCHONK

The LNG industry has an excellent safety record. There have been reported some accidents but that is already many years ago, but that's not, I think, the direct answer to your question regarding risks. Currently, we are conducting the quantitative risk analysis for the LNG terminal and the petrochemical facility. That means until now we have not the results for the Goldboro plant. However, recently, last year, we did the same exercise for the Rotterdam terminal of 4Gas. Shawn presented that in his presentation earlier. Let's make a comparison. From that analysis, from that quantitative risk analysis, the conclusion was that a circle just around the site -- and you can imagine that in a very busy harbour as in Rotterdam space for site is very limited, so we have a rather condensed site.

80 MR. McALLISTER - QUESTIONED

Just around the site was a circle drawn, a risk contour so-called, of 10 minus 6. And what does that mean? That means that the risks on an accident, on an accident with people dying, is 10 minus 6. You can compare that with the risk of flying, flying in an airplane, and that's, I think the comparison to make it a little bit more easier to understand what the risks are.

MR. BEAVER

What does 10 minus 6 mean?

MR. SCHONK

One in a million. Sorry.

MR. BEAVER

Thanks.

MR. DUNCAN

I think it's just a good point, again just to emphasize that the risks -- we do a lot of risk evaluation for these types of projects. Rob alluded to the quantitative risk assessment currently undertaken. And levels of risk, as he mentioned, are relative. I mean, we undertake risks in our everyday activities, of course. So we model these things, and we look at them, and we debate, you know, these types of numbers. The

MR. McALLISTER - QUESTIONED

81

risk numbers are very, very low. So that's just something to keep in mind when we do this level of evaluation we generate these risk numbers, but they need to be put in context about what exactly we're talking about. Thanks.

THE CHAIR

Thanks. We had one other?

MS. GAGNON

Chantal, the Ecology Action Centre. Everybody knows that already. So I just want to clarify something regarding to the sources of ignition, and you probably can just say yes, I've got it on -- there will be flares and there is a Sable Offshore flare in the site, so potentially they are, I guess, sources of ignition, but they would be so high that by that time if there was a leak the methane and the ethane would have mixed to a level where they couldn't be ignited, is that correct?

MR. DUNCAN

Yes.

MS. GAGNON

Good. See, an easy answer, that one. Second question, confinement. If I remember from the Environmental

82 MR. McALLISTER - QUESTIONED

Impact Assessment report, the LNG storage tanks are going to be 43 metres or something in between each storage tank. From what I understand, that is closer than what should be in case of an explosion or in case of malfunction. At least, that's what I got from your report, and that's why the security or the safety measure is to flood it with water, if I remember. So I'm wondering in terms -- if the more chances of explosions or accidents is linked to, in part, confinement and having things close together, wouldn't it be better just to put those storage tanks more at a distance, that is according to what was in your report should be maybe double the 43 metres? But again, that was in your report.

MR. DUNCAN

Just as a point of clarification, in the report we do assess or describe what the plant would look like at this stage without any detailed design work that's been conducted. As we alluded to earlier, as part of the detailed design we're conducting, as Rob explained, what's called a quantitative risk assessment. This risk assessment is used to evaluate potential risks of accidental events in the project, and this is used to

help design the project in terms of the system planning, spacing of infrastructure. So through our detailed design and through the quantitative risk assessment process, the final distances between those tanks and the facilities will be determined. In this project, planning is all done with respect to potential materials and potential accidental events. So again, this would be done through detailed design. Rob can probably expand on that issue a little bit more.

MR. SCHONK

Yeah, a few more words. It's a global standard that the minimum distance between two tanks is half the diameter of the largest tank. That's the reason we took 43 metres or approximately. Relating to your question, that distance means that the space between the tanks cannot be considered as a confined space. So, in terms of explosion, there's no chance of explosion.

MS. GAGNON

So there's wouldn't be -- that ensures that there wouldn't be a sort of domino effect or anything like that, is that correct?

MR. SCHONK

84 MR. McALLISTER - QUESTIONED

That is correct.

THE CHAIR

Okay. Thank you. And final call, anyone else who wishes to ask a question, make a statement? Anyone at all? No? Okay. That being the case, we'll adjourn for now. We will be back here again this evening at 6:30 for a further session. Thanks very much.

--- Upon adjourning at 3:16 p.m.

--- Upon resuming at 6:30 p.m.

THE CHAIR - OPENING REMARKS

Folks, I think we're going to try and get started in just a minute here. It's 6:30, so we'll try to keep to our schedule. Welcome. This is a continuation of the public hearings under the environmental assessment process for the Keltic Petrochemical proposed project. These hearings are being conducted under the Provincial assessment process. My name is Tony Blouin. I'm the Chair of the Nova Scotia Environmental Assessment Board. On my left is Penny Henneberry, a member of the Board, and Ray Cranston, also a member of the Board. And we are the Panel for these hearings. Our job is to conduct public hearings, get public input and feedback on the project, and prepare a report afterwards to the Minister of Environment. We're volunteers. We're not provincial employees. We do report directly to the Minister. Basically, we can recommend that a project should go ahead, or that it should go ahead with certain conditions that we recommend, or that it should not go ahead. And our role is advisory. It's the Minister of Environment and Labour that makes the final decision in all cases. There's also a Federal

Environmental Assessment process which this project is also going through. It has similar information requirements, but it doesn't require public hearings. So, this is strictly a Provincial hearing process. The two processes are going in a coordinated fashion. Each Minister, Federal and Provincial, has to make their own decision at the end, but the requirements are being coordinated to the greatest extent possible, to avoid duplication. We don't follow the same rules as a court of law, necessarily. It's a little more informal. But the regulations do set out the process, and provide some guidelines on how we operate. We begin a session with a brief presentation by the proponent. We had a more extensive one in the afternoon. Recognizing that we don't have all the same audience members, but to avoid duplicating that again, they're going to give a briefer summary, just describing their project. We then have a couple of intervenors who have registered to speak tonight. So, following Keltic, we'll have some time for question and answers. If you have any particular questions for Keltic, following their presentation, we'll have time for you to do that. Then we've got two intervenors, and we'll have time for

questions for each of those people, if there are any, as well. At the end of the session, we have time set aside for a general open forum. If anybody wants to come to a microphone and make a statement, voice an issue, ask a question, there's time for that. I would ask you to, if you're doing that, please use a microphone to ask any questions, so that we get you on the transcript. We are taping the proceedings, and there will be a written transcript produced. The transcript from yesterday's session in Guysborough will be available as of tomorrow, in -- our session tomorrow is in Antigonish. So, that transcript from Guysborough will be available, and then sort of each day after that. Those will be draft form. We haven't had a chance to edit those, but there will be a final edited version also produced. When you're asking a question from the floor, I'd ask please direct the questions to me, as the Chair, and I'll determine who is the best one to answer it. That's just to avoid starting up direct debates between audience members and a presenter or a Panel member. The one requirement is, for anyone giving substantial evidence to the Panel, the regulations require that they do be sworn in. We've

88 MR. CHAIR - OPENING REMARKS

already done that, at the beginning of the hearings, for the Keltic group, and that still applies. For anyone who's coming up to make a presentation, it's a requirement for you to be sworn in. If you are -- if you want to ask a question as a member of an audience, just to come to a microphone, it's not required for you to do that. So, we're going to begin with a brief summary presentation from Keltic. So I just ask them to come forward and identify themselves.

KELTIC PETROCHEMICAL INC. PANEL, (Previously Sworn)

MR. SHAWN DUNCAN, (Previously Sworn)

MR. KEVIN DUNN, (Previously Sworn)

MR. DEREK OWEN, (Previously Sworn)

MR. ROB SCHONK, (Previously Sworn)

MR. DAVE PURVIS, (Previously Sworn)

MS. JANET BLACKADAR, (Previously Sworn)

KELTIC PETROCHEMICAL INC. - PRESENTATION

MR. DUNCAN

Thank you, Mr. Chair. My name's Shawn Duncan. I'm with AMEC Earth & Environmental. We were involved with preparing the EIA, or the Environmental Impact Assessment for the Keltic project. Just a brief overview of the presentation. As indicated earlier, we

gave, about the project, a little bit about Environmental Impact Assessments in general, and some of the conclusions, as well as some of the permitting and approvals required for the project to proceed. The Keltic project, it's -- the proposed project is what we call a world class facility. It operates on global markets. It consists of, essentially, two main components, one being the LNG, or the liquid natural gas regassification process, which brings the liquid natural gas ashore, regassifies it, turns it back into natural gas. We've got a capacity -- a send out capacity of about a billion cubic feet per day for this facility. Also associated with the project is an integrated petrochemical complex. This complex will use the liquids from the natural gas, and use that for processing base materials, for the production of plastics. Just for reference, where the project is located, it is located in Goldboro, Nova Scotia, in Guysborough County. It's in the Goldboro Industrial Park, adjacent to the SOEI facilities. It has, as you can see in yellow -- and it's probably not a great figure, but we've got some hard copies, I believe, at the back, which would be better viewed. But there are

petrochemical facilities that would include the processing units on site, as well as a terminal wharf for the storage and for the shipping of product. Also, the liquid natural gas facilities are adjacent to that, with storage regassification facilities, and an offshore LNG terminal for the off loading of LNG from ships. Associated with that project, as well, for the power requirements, we're looking at proposing a power plant, a cogeneration natural gas fired power plant. As well, water would be required for the process of materials, so we're looking at taking water from Meadow Lake. And because of the water requirements, we're looking at raising the level of Meadow Lake by two meters. So, the question is, why would we locate a facility like that in this location? There's a number of good reasons. Nova Scotia, in general, is well located with respect to global LNG supplies. Shipping distances from LNG supply basins such as Russia, Middle East, Africa, are much closer to -- much shorter shipping durations than it would be for the ships to go to, say -- there's a terminal in Maryland, there's another one in Texas. And the shipping distances are days shorter to come to Nova Scotia. Nova Scotia, and

specifically Goldboro, has existing natural gas infrastructure, specifically the Sable gas plant, as well as the Maritimes & Northeast Pipeline system. These facilities are going to be used, or the gas at Sable, there's liquids in that gas. Those liquids will also be used in the petrochemical facility. As well, the natural gas that's remaining after the LNG comes ashore and is gassified, the remaining gas that's not used in the process or production of power will be going to the Maritimes and Northeast system for distribution to residential and industrial users in Nova Scotia, New Brunswick, as well as transport to Northeast U.S. A number of years ago, the Municipality of Guysborough set aside the portion of land around the Sable plant as the Goldboro Industrial Park, zoned this area as -- for heavy industrial use, with the anticipation that there would be industries such as we're proposing here, would want to locate there and utilize the infrastructure. There's also corridors in this industrial park for future development, for future offshore resources -- natural gas resources that could come aboard. For example, the Deep Panuke, that is the proposed landfall and location for that line to come

ashore. As well, Goldboro offers an ice free, deep harbour, for ship transport, and for these type of terminal facilities. We'll talk a little bit about the Environmental Impact Assessment, or EIA. EIA is essentially a planning tool. It's used for a number of things. First of all, we like to look at the effects of the project. We need to look at the effects of the project on the people, the environment, and the economy, and look at what those effects may be. EIA is also used by decision makers, by regulatory bodies such as the Board here, and other permitting agencies, to look at the potential effects of the project and determine what permits may be required, or what decisions, or what additional measures need to be applied to the project. It also assists the Proponent to refine the project, to ensure that it does meet environmental standards, and minimizes environmental effects. Through our evaluation, if we determine that there are unacceptable environmental effects, we would go back and redesign or re-evaluate the project, to ensure that those standards are met. EIAs are conducted, generally, in a regulatory review process that -- and here in Nova Scotia, the process we're

currently involved in is under the environmental -- the Environment Act, specifically Environmental Assessment Regulations under that Act. This project has been designated as a Class II undertaking, and it was registered with the Province on January 12th, 2005. The Province developed what we call a terms of reference. Those terms of reference, it's kind of like a road map. It tells the proponent what kind of issues, or what kind of features need to be evaluated as part of the EIA. And this EIA is then subject to a review by an Environmental Assessment Board, who are here this evening. And as part of that review, we conduct these types of open, public hearings to hear from the public, and whatever issues may arise from the review of that -- of the project. It should be mentioned that we're also going through a Federal Environmental Assessment process, under the Canadian Environmental Assessment Act, or CEAA. There are a couple of triggers under the Federal legislation, where departments have to issue permits or approvals. Specifically, Fisheries and Oceans Canada, and Transport Canada, have both indicated that they would have to initiate or activate approvals or permits for

this project. Other people that are involved would include Environment Canada, Natural Resources Canada and Health Canada. These Federal agencies are what we call expert authorities. They have review capacity within this process as well. We produce -- under this process, we are producing what's called a Comprehensive Study Report for the marine terminal facilities. We are -- it's essentially another type of EIA. It will be submitted to the Federal agencies for review. And we're currently assembling that CSR right now for review under the Federal process. Some of the major EIA elements that -- just to go through, generally, what's included in these types of studies, and how we go about conducting them. First of all, we need to assemble an appropriate level of environmental baseline. We need to understand the kind of environment that the project will be developed in, what potential effects the project could have. This is done through -- also, the next step, of course, is to develop a list of these issues, in detail. Not only do we develop this list from the surveys that are conducted, but also through extensive consultation with the public, with regulators, with stakeholders, with

First Nations. We develop a large list of what those issues are. We also have to look at the effects of the environment on the project. Wherever a project is developed, it has specific environmental influences on the project, such as wind, currents, waves. Those type of issues all have to be taken into the design of the project. We also have to look at identifying specific, what we call valued environmental components, or VECs. These VECs are the specific issues that relate to the project. And we'll -- I'll talk a little bit about those, because really, they're the important feature of any EIA. They focus the report on those issues that are relevant to the project, that could have potential effects. For each of these VECs, we establish what's called temporal spatial boundaries. Temporal boundaries are time dependant. They're related to things such as migratory periods, or times of year when certain effects may be more relevant than other times of the year. Spatial boundaries refer to the aerial extent. If we're talking a physical effect, we may just look at a footprint of a specific area. For things such as air quality or emissions from a facility, we would look at a larger area, such as a

regional air shed. So, obviously, that's much larger than the footprint of the plant. We then conduct an assessment of these effects of the project on the environment, and we determine the level of significance of these effects. And we'll talk a bit more about that, as well. We apply mitigation, which are essentially measures or redesign measures that would minimize the effects of the project on the environment. And then we would determine, is there any left over effects, or residual effects? After we apply mitigation, are there still remaining effects? And if those effects -- we then have to determine the significance levels of those. We also conduct what's called a Cumulative Effects Assessment. The analogy I use is dust. If it's generated -- if you're doing construction on a site, those dust levels may be minimal or acceptable on that site. But if you have an adjacent site that's planned to be constructed at the same time, and it's generating dust, you have to look at the combination of those two. Because sometimes you have the -- an addition of two different sources that could create an unacceptable issue. So, just go through, briefly, the conclusions. We have a large

number of VECs. We have a very large EIA, which is available here for review. So, we don't have the time to go through all of them, but what I'd like to do is just generally run through a couple of examples of the kind of conclusions or -- and the assessments that were done, as part of the EIA. Under, "Effects on Fish Habitat", one of the things we evaluated was the Meadow Lake impoundment, and the effect of that on fish habitat. As I mentioned, the Meadow Lake impoundment will be raised to acquire enough water source for the processing. This change in water levels would have a change on aquatic habitat as well. We've looked at it, and determined that there could be positive, but as well, negative effects. But when we look at mitigation, and we look at measures that could be implemented in these locations and during -- as part of this development, we've determined that this effect is what we call non-significant. It would not have a -- we're not expecting that to have an effect on fish populations locally or regionally. Another issue we looked at was archaeological resources. And the example here is the Red Head Cemetery. Of course, any disturbance to a cemetery would have a significant

effect on a community, just because of the sensitivity, as well as the importance of these sites. Red Head Cemetery itself was undergoing erosion issues a couple of years ago, or has for a number of years, undergone some erosion concerns about the burial sites being exposed. Aside from the Keltic project, these sites were evaluated, and human remains were removed from the site, and placed in appropriate location -- a burial location. Regardless of the removal of these remains, we would consider this area still a high potential area. We've conducted archaeological surveys there, and found that there are no human remains, but there does remain an elevated potential for archaeological resources. So, we would implement mitigation there during the construction, such that if any archaeological resources are encountered, we would take appropriate measures to ensure that those are properly catalogued and protected. Effects on terrestrial habitat. If we look at the specific footprint of the plant, there obviously will be some loss of terrestrial habitat there, which is unavoidable with this type of development. What we would do, again, is understanding the local environment, we would conduct -- we have

conducted surveys there that have collected habitat information, as well as the type of species that would reside there, or utilize those areas. And generally, we have found that that area does not contain what we call critical habitat, and therefore, the impact on those species that are on that -- on those habitat features, generally, on a larger scale, would be non-significant. Another issue we have evaluated is effective transportation, from the project construction, as well as operations, on the existing road infrastructure. We've determined, because of the volume, there would be an effect on the existing road infrastructure. As such, there may be a requirement to upgrade those facilities -- upgrade that infrastructure, and we've indicated that more detailed design evaluations need to be done. These are currently being discussed with Nova Scotia Transportation and Public Works, who have the responsibility for these -- this road infrastructure. And we'll be discussing with them whatever upgrades may be required to accommodate this traffic. As well, in the conclusions, there are a couple of issues that have come up as what we considered as significant with

respect to residual effects, or having residual effects, and we go through and assess the significance of those. The first one is socioeconomic. And as I mentioned earlier -- or perhaps I didn't mention, but I'll mention now, is that we look at all effects, whether they're positive or negative. In this case, we have found that there is a positive economic effect from the project. In fact, it's a substantial economic effect, and one we would consider a significant effect. This comes from local employment, through wages, through support services that are required, taxation. Those type of issues are all what we would consider a significant economic effect from the project, but positive. With respect to aesthetics, we recognize that there's no way to hide this facility. This facility will change how this area of land looks -- currently looks right now. So there will be a visual impact. But, when we evaluate that, in the context of the relatively small number of receptors for that effect, the fact that the site and the property has been zoned by the Municipality for heavy industrial use, that has been the planned use for that site, as well as some of the advantages of the project. When we

evaluate this residual effect we determine that the significance of that effect is not a major effect. It's what we would consider a medium effect. Talk very briefly about the permitting and approvals. Generally, people think once the EIA is complete, and the approval -- and this process is over, that's it for regulatory or environmental permits. For industries such as this, that's not the case. This is, essentially, the first step in their approvals and permitting. Under the Provincial legislation, there are a number of things about the project that still require permits and approvals, as we move forward. The construction operation of the facilities, the petrochemical facilities, still need industrial approvals from the Department of Environment. The construction operation of the power plant also requires an approval from the Department. The construction operation of the water treatment facilities require approval. When we withdraw water greater than 23,000 litres per day, also requires an approval. And the construction and operation of an LNG facility itself requires approval. There is a separate process under the Nova Scotia Utility and Review Board that evaluates LNG facilities,

specifically. That process still needs to be initiated and undertaken. Under the Federal process, there are also a number of approvals that are still required, and processes that will review and evaluate the project. Specifically, there's a process called the Terminal Review Process for Marine Terminal Systems -- or Technical Review Process of Marine Terminal Systems, or TERMPOL. This TERMPOL process evaluates components of the project associated with the operational ship safety, shipping route safety, the construction and operation of the marine terminal itself. As well, there's what we call a quantitative risk assessment for the system design, and emergency response planning that's required as part of this process. This review process is coordinated by Transport Canada, but there's also participants by other Federal departments as well in this process, specifically DFO and Environment Canada. Also, the Municipality has bylaws in place that would be applicable to the project. These are specific to the land use. Specifically around this type of industrial use, there are requirements and conditions associated with the development of that. So, in conclusion, the EIA concludes that, generally,

all the potential negative effects from the project can be successfully managed. There are ways to design the project, and to implement measures that will have -- that will minimize the environmental effects from the project development. The project itself will create employment, which would enhance personal income, but also have a number of spin off benefits associated with services, supply of materials, as well as issues associated with taxation. The project itself is in compliance with the planned industrial uses of the location. The site has been zoned, and is planned for petrochemical and oil and gas facilities, such as what is being proposed. This project can be constructed and operated in a safe manner. These facilities do have extensive records of safety. Their -- safety is a large part of the culture of both the petrochemical and the LNG industries. As well, and hand in hand with that, these two industries, both the petrochemical and the LNG industries, are the most highly regulated industries in the world. There are a number of oversights and approvals and measures and standards that would apply to these industries. As well, additional permits and regulatory approvals will still

104 Keltic Petrochemical Inc. - Presentation

be required for these projects to proceed. There's additional work to be conducted through the detail design phase of the project, and we supply this information to those permitting agencies as well. So, again, there are a number of steps still to go through for the project to -- for them to be able to initiate construction and go forward, through to operation. So, we're available for questions at your convenience, Mr. Chair.

THE CHAIR

Thank you. Yeah. So, we do have time, if anyone's got any specific questions for Keltic on their presentation, or their project. At this time, I would ask you to confine yourself just to questions, in particular. For those who might want to raise issues, or make a statement or anything, we will have time at the end for you to do that. But, if you have particular questions, please come up to the microphone and identify yourself. I know sometimes people are reluctant to get up, so I want to give you a minute just to make sure that nobody has any particular questions for Keltic. Okay, I think one's coming.

Keltic Petrochemical Inc. - Questioned

MS. GAGNON

Chantal, Ecology Action Centre. Regarding fish habitat, for your just presentation, you just mentioned the dam at Meadow Lake. I was wondering if you could just state what the expected impacts are for the other fish habitat affected by the project, such as the marine ones, and also the ones on Betty's Cove, Webb's Cove, Dung Coves, where the ponds are and all that stuff. So, if you wanted to just reiterate what the conclusion was in regarding to impacts to that fish habitat. If it's medium, major, no significant effects, residual effects. What was your conclusion on that VEC, please? Thank you.

THE CHAIR

Thanks. Keltic, go ahead, please.

MR. DUNCAN

I'll have to read from the EIA. I don't have it all committed to memory, so you'll have to give me a minute to look up the appropriate section.

THE CHAIR

While they're doing that, maybe I'll just mention, I didn't earlier. We do have a number of handouts available on the table back at the door, where you came

in. There are the schedule of hearings that we're conducting. There are also a number of documents there for you to have a look at. There have been a number of written questions that we've sent to Keltic for their response, so there are a couple of volumes of questions and answers that have already been provided by Keltic. There are also some handouts on the regulations that we operate under, that sort of thing. The questions and answers that I referred to, some of those have come from the Panel members, some of them have come from written comments that we've received from other intervenors, or just from the general public. So, we've provided a whole range of questions. Everything that we've received in writing or by email or whatever, those have gone to Keltic, and they've provided information, in response to those questions.

MR. DUNCAN

Just as a preliminary response, you mentioned Betty's Cove Brook. The project actually will not have any effect or impact on Betty's Cove Brook. There's no interaction there. I'll just continue to go through, and find those other references you indicated. With respect to the Marine Terminal, obviously, there will

be a -- there is a potential effect on fish and fish habitat, within the footprint of the Marine Terminal itself. We evaluated that footprint, and the loss of that habitat. We'd be looking at conducting some level of habitat compensation associated with that loss, through discussion with DFO, as well as other agencies, or groups, that may be involved with habitat compensation in the area. So, generally, that habitat, we evaluated it, and determined that it could be compensated, through habitat creation in other areas. That was specifically for construction activities. Obviously, when the terminal is built, the effect on a marine fish habitat, we expect there to be no impact on the actual habitat from the operations. Once the terminal is built, as we indicated, that loss of habitat -- that habitat will be lost through the infilling associated with the terminal construction. And just to clarify, you asked about a couple of ponds. I'm assuming these are the ponds on the peninsula, is that correct? Okay. We evaluated the ponds. We've labelled them with numbers. Essentially, the construction of the Marginal Wharf will result in the filling in of Ponds what we call 4 and 5, which are on

108 Keltic Petrochemical Inc. - Questioned

that peninsula. Both these ponds are filled with brackish water, are less than 1 hectare in total area. The fish community in those ponds include three spine stickleback, four spine stickleback, nine spine stickleback, and banded killifish. There are no recreational, Aboriginal or commercial fisheries associated with these ponds. These are small, brackish water ponds on the peninsula, as well. But we're going to lose those two ponds, and we will evaluate those, as well, for issues associated with habitat compensation, in terms of aerial extent. I believe those -- that's the extent of the responses to the question.

THE CHAIR

Okay. Thank you. Anything further?

MS. GAGNON

I found Table 11.1 where it says what your minimal -- what the residual effects will be, minimal, minor, minimal and all that stuff, so ---

MR. DUNCAN

Okay.

MS. GAGNON

That's where it is.

MR. DUNCAN

Thank you.

THE CHAIR

Okay. Anyone else with a question for Keltic, relating to their project? Final call? Any further questions?

Okay. We have two individuals who have registered as intervenors, to make a presentation this evening. The first is the Municipality of the District of St. Mary's, represented by Mr. David Gillis. Yes?

WARDEN CLARK

Warden David Clark.

THE CHAIR

Okay. For the record, it's Warden David Clark who will be making the presentation. Is Mr. Clark ready to go?

Okay. As I indicated, for presenters, there is a requirement that you be sworn in. So, Jim Gordon, our Administrator, is going to do that, before you get started.

WARDEN DAVID CLARK, (Sworn)

THE CHAIR

Go ahead, please.

WARDEN CLARK

Okay. We'll get adjusted up here. Mr. Chair, before I start, on behalf of St. Mary's Municipal staff and

Council, I'd like to welcome the Board to Sherbrooke, and I'd also like to welcome members of Keltic Petrochemicals to Sherbrooke for their review hearings. And I'd like to thank you very much for giving the area the opportunity to present, by having your hearings here at Sherbrooke. It's very beneficial for our residents. So, thank you very much for this opportunity.

THE CHAIR

Sure.

MUNICIPALITY OF THE DISTRICT OF ST. MARY'S - PRESENTATION

WARDEN DAVID CLARK - PRESENTER

Okay. On behalf of St. Mary's Municipality, and the District of St. Mary's Council would like to express their support of the Keltic Petrochemical Maple LNG development project. Council recognizes not only the potential impact -- economic impact in spinoffs on the District of St. Mary's, but rather the potential for economic growth across all of Guysborough County and Nova Scotia. Council is fully aware that industrial development brings environmental impacts. However, Council has confidence that Federal and Provincial regulatory laws will ensure the highest environmental

standards are met, or exceeded. We understand and sympathize with people who are concerned with the effects the project could potentially have on their families, and that industry can change the landscape of a beautiful, rural, scenic area. Keeping this in mind, we must also realize the economic impact that 3-500 new jobs will have on Eastern Nova Scotia. The Municipality of the District of St. Mary's is looking forward to the economic benefits of the proposed project, and will be making every effort to promote our Municipality as an excellent location for employees to reside. The project has the potential and the ability to help trigger and aid in ensuring a successful and flourishing future for the area. It will provide a tremendous opportunity, by providing employment to local residents, allowing our youth to stay, and return home, to work, and to attract new families to our area. We would also hope to see an increase in our school population, which has been declining over the past number of years, and has been the trend in many rural areas. A project such as this would increase traffic flow within our current businesses, and attract new businesses to provide services for the increased

population. Our current recreation facilities, such as the RecPlex, our fitness centres, community centres, ball fields and playgrounds, have the capacity to handle increased traffic, and provide recreational services for everyone. High speed internet is now available in Sherbrooke, Sonora, Liscombe, Melrose, Goshen and Port Bickerton, which is an -- which is essential to commercial and business development. Council has been working on land use planning for the Municipality, and it will be completed within the very near future. During the process of the land use planning, public meetings were held throughout the Municipality, as well as mail out surveys were completed. The results we received from our residents confirm that they are looking for growth, such as new businesses, increased job opportunities, and new families moving to the area. Provisions have been made to allow for rezoning of potential commercial development. Strong positive feedback was received from residents supporting the Keltic project during this process. A recent survey showed numerous properties for sale and rent. It was available throughout many communities in the Municipality. We

anticipate that our competitive tax rates will attract residential, as well as commercial, interest to the area. And the current industry, and the businesses that we have in the Municipality include, of course, tourism, with Sherbrooke Village, which is one of the largest museums in the Province. We have our local, kind of a jewel, the Liscombe Lodge Provincial Resort, which is a major, major resort for the Province. We have our interpretive centres, such as Goldenville, the Gold Mining Centre there; Port Bickerton Lighthouse, in Port Bickerton, which is very close proximity to the project; and the St. Mary's River Association Museum here in Sherbrooke. On the fishing sector, the St. Mary's River Smokehouse, of course, is renowned for its smoked salmon, and we have a very lucrative lobster, crab, clam and inshore fishing industries in our coastal communities. And we would expect that very special attention be paid to those inshore fisheries, because it is a very lucrative industry, in our Municipality. Agriculture, we have three major dairy farms, along with several other, small farms, and we have a significant blueberry operations throughout our inland communities. Forestry is another sector. We

have pulpwood and hardwood harvesting within our Municipality; Christmas tree production; sawmills; and a major pellet mill operation, which makes the forestry a very important part of our economy. The Municipality is fortunate to have many essential services and amenities throughout the area. Sherbrooke being 50 kilometres from Goldboro, it's our service centre, and offers a hospital, with two doctors. We have legal services, a drug store, a nursing home, RCMP, a Nova Scotia Liquor Commission, EMS, Emergency Medical Services. We have a hardware store, a bank, a library, along with a rural elementary and a high school, which provides an excellent education to our youth. The larger coastal communities in the Municipality include Ecum Secum, Marie Joseph, Liscombe, Sonora, and Port Bickerton. These communities range from 20 kilometres to approximately 90 kilometres from Goldboro. The main inland communities are Aspen and Goshen, which are approximately 50 kilometres from Goldboro, and about a half hour drive to Antigonish. Sherbrooke, along with the outlying communities, provide other services and amenities, such as grocery and convenience stores, post offices, service stations, and recreation facilities.

We have volunteer fire departments, motel lodging, restaurants, and camp sites, along with numerous other amenities and services, throughout these communities. Facing an aging population, and our youth moving west, to reap the benefits of that booming economy, it's time that the Maritimes, especially Guysborough County, take advantage of such a great opportunity as this project. We want to bring our youth back. We want to decrease the employment -- unemployment rates in our area, spark new development, and welcome new people and families to our communities. The Keltic development is a perfect opportunity to be proactive for the area. We have one chance to fully capture the potential this project has to offer, therefore, we must work together, to make it happen. We appreciate having the opportunity to make a presentation to the Board, on behalf of the Municipality of the District of St. Mary's. We are very much in favour and support of the proposed Keltic Petrochemical project in Goldboro. If this project does not materialize, Guysborough County will continue to be faced with the loss of our youth, medical facilities, loss of educational programs in our schools, and the closure of many small, local

116 MUNICIPALITY OF THE DIST. OF ST. MARY'S - PRESENTATION

businesses. Please accept this letter of support for the Keltic Petrochemical project, and hold it in high regards, when considering advancements of this venture. I want to thank you very much for the opportunity to present on behalf of St. Mary's Council.

THE CHAIR

You're welcome. And thanks very much. While we have the Warden available here, are there any questions for St. Mary's, on their presentation? No questions? Okay. All right. Thank you very much, Mr. Clark.

WARDEN CLARK

Thank you.

THE CHAIR

Our second presenter tonight is Katherine Reed.

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MS. KATHERINE REED, (Sworn)

MS. KATHERINE REED - PRESENTATION

MS. REED

Good evening. I wonder if I could -- I have no opportunity to present in Antigonish, and I do work in Antigonish, and I wonder if I could take about two minutes, to make a comment about the impact on that community, before I get into this?

THE CHAIR

Certainly, that's fine.

MS. REED

Great. Thank you. I work at the Antigonish Women's Resource Centre, and I have been working with poor women for about 20 years: welfare poor, and working poor. And I have experienced, myself, the housing market in Antigonish, which is rather unfriendly to people who rent, and who can't afford a lot of money for that. The Women's Centre has seen a steady stream over 20 years of women coming in the door, saying, "Can you help me find a place I can live in with my kids, that I can afford, that isn't a hole in the wall, or a mouldy basement, or unsafe, unfit, etc.?" And we've always had to say, "Well, we'll try, but it's not likely we'll be able to meet those -- both of those objectives." About five years ago, we started an initiative. We put together a group called the Antigonish Affordable Housing Society, and tried to develop with -- under the Canada Nova Scotia Affordable Housing Agreement, a project that would house an additional eight families who live on low incomes, and because of painfully ill conceived programming on the

118 MS. KATHERINE REED - PRESENTATION

part of the Government of Nova Scotia, and Canada, I guess, we abandoned the effort, after about three years. Funding levels were inadequate, and terms and conditions of the program were extremely -- were just completely unacceptable. So, my point is, and I wonder -- it -- I wish I had thought of this earlier, because I would have made a presentation in Antigonish. I wonder if anyone in Antigonish is going to say, "Hey, I think this project is going to have a rather strong impact on the housing market in Antigonish, as did the Sable project, when all the M&NP guys came in and, you know, took up apartments. And the Women's Centre, then, was faced with women who just were spending months and months, after being, you know -- after having given their notice, or being evicted, looking for housing, that they absolutely couldn't find. So, I think that's going to be a very substantial social economic impact on the community of Antigonish. And I urge the proponents, if the project goes ahead, to do something to mitigate that. Okay, so I'm here to present -- to make a presentation that was developed collaboratively in Fisherman's Harbour, which is very close to the proposed development. And it was

developed with, actually, six people, sitting over here: John and Margaret Bingley, Linda Christine Bingley, Paul and Vicky Keith, and Arlene Bingley. And Vernon Bingley and Rollo Bingley were not able to be here tonight. Some of these people have pursued their fishing enterprises all their lives. We'd like to make it very clear that we're not against economic development in our local area. We very much recognize the need for economic development, and would love to have good, secure jobs for our grown children and future young people, and we want to see our small rural community thrive. However, we do not foresee that the proposed LNG facility and petrochemical plant would bring much economic benefit to our local area, and we find major issues with the negative impacts that it would certainly bring, as well as the risks that we know cannot be completely eliminated. We wonder if the petrochemical plant, and the longer term jobs that are to come with it, will ever actually happen, or if it is just a promise that will evaporate, once the proponents have approval to build the LNG facility. It makes no sense to us to have to live with the negative impacts and the risks, which will be discussed below, but

120 MS. KATHERINE REED - PRESENTATION

experience much of the -- but not experience much benefit from the initiative. So, these are our concerns. Disruption of the local fishery. Local fishers will have restrictions placed on when and where they can fish, because of LNG tanker traffic, and other commercial marine traffic. This is a significant concern for lobster fishers, who have only a 60 day annual season in which to fish. We understand that LNG tankers will come into Stormont Bay once or twice weekly, and there will be additional commercial marine traffic serving the petrochemical plant. This is bound to disrupt the local fishing -- lobster fishing during that season, which is April 19th to June 20th. The fishing families have experience with the proponents of the Sable project, specifically, ExxonMobil, promising compensation for lost catch, and then renegeing. ExxonMobil even hired a lawyer to fight in Small Claims Court against a fisherman's legitimate, and quite reasonable, claim. It was quite a spectacle to see the largest corporation in the world, I'm told, fighting a fisherman from Nova Scotia's Fisherman's Harbour in Small Claims Court, against a claim that they had said they would honour, earlier. Another concern of fishers

is the potential for lobster catches from the local area to become stigmatized because of industrial activity within and close to fishing grounds. At this time, buyers understand that the area produced these lobsters, and it's a clean environment. Eastern Shore lobsters are known to be of a higher quality than lobsters from other areas in Atlantic Canada. Should the new industrial activity change this optimal situation, the market value of lobsters caught in and around Stormont Bay could be very negatively affected. If proposed -- if the proposed development goes ahead, there are bound to be pollutants discharged into these waters, that provide fishing families' livelihoods. These pollutants will come from normal operations of industry and marine traffic, and potentially from spills, leaks and accidents. I seem to be missing something at the bottom of the page. Oh. There's also a concern that this project's disturbing of soils that were formerly mining sites will release toxins into the groundwater, and the toxins will end up in our coastal waters, affecting lobsters, mackerel and other fish we depend on. The fishers have not been given satisfactory or complete information about the

proponent's intentions with regards to mitigation and compensation for negative impacts on the local fishing industry, a vital part of this -- the economy of this small community. Kevin Dunn met twice with local fishermen, and promised at least one more meeting, and has not been heard from since, presumably, because he sold his interest in the project to someone else. This shifting of proponents, changing of company names and structures, is characteristic of industry. And that, along with previous experience, makes it very difficult for the local people, who are most immediately affected by industrial development, to trust proponents of such projects. The second concern is pollution, its effect on the health of residents. Although residents of Fisherman's Harbour are not environmental experts, we have an intimate relationship with our natural environment, and we understand the benefits of living in this environment. The sense of threat that we feel at the prospect of all of this being taken away is immediate and visceral. The quality of our air, water, and forests is second to none. Under no circumstances do we want these precious resources, and our excellent quality of life, to be compromised, especially as a

result of industrial development that benefits people who live far from here, people who do not understand, nor do they necessarily care about, our quality of life, or the condition of our environment. A recent newspaper article in the Chronicle Herald, in the November 8th -- November 8th, '06 edition by Sheryl Ubelacker, tells of two researchers, who have studied the permanent damage done to the brains of children who were exposed to lead and mercury. Their findings prompted them to consider the effects of other toxins. Eventually, the researchers developed a list of 201 other pollutants which are likely to cause irreparable damage to children's developing brains. Are we to believe that there will be absolutely no chemical pollution released into our air, water and soil, as a result of the proposed industrial activity, and we therefore have nothing to fear about such things as chemicals, that can permanently damage the brains of children living in our community? Surely, there will be pollution, and surely, people living in the Stormont Bay area will be exposed to it. Another concern is prospects for future environmentally sound economic development. Any future attempts toward building a

sustainable tourism based local economy could be shut down well into the foreseeable future, by fundamentally changing the character of the local area from a rural, and relatively untouched natural environment, to an industrial centre. We expect that if some heavy industry is established here, it's likely to attract more heavy industry. Although not much economic development has been done in this area yet, the potential to develop this rural economy through fishing, tourism and other forms of enterprise, is great. We want economic development that fits with our way of life, and it is sustainable, diversified, ecology sound, and suited to this rural, coastal environment. If we put all of our eggs into this industrial basket, so to speak, specifically the LNG facility and the petrochemical plant, what are we to do once this project's working life is over? The danger is that we will be left with no jobs once again, and we will have an industrial wasteland on our doorstep. It's unlikely that wealthy, urban business people and shareholders will concern themselves about this end result. Under global warming. Awareness is growing everywhere in the world of a looming global

environmental catastrophe, because of the burning of fossil fuels. In light of this information, it seems completely backward to develop a huge new facility for yet more fossil fuel consumption, and to emit large amounts of greenhouse gases in the process of transporting the product from its source to the unloading facility, on the Eastern Shore of Nova Scotia. What kind of message does our accepting this development communicate to people all over the world about our intentions, or the lack thereof, to decisively deal with the growing threat of global warming? We need to invest in developing renewable energy resources, not to keep going in the same, destructive track, that has obviously gotten us into serious trouble. Focusing on fossil fuel development distracts us from the need to develop renewables, just as focusing on industrial development distracts us from the -- from sustainable and ecologically sound economic development. The last concern is safety, of course. The threat of a spill, or leak, or explosion, is something we would have to live with every day, for the rest of our lives, no matter how unlikely these things might be. We realize that the proponents assure

everyone that such accidents are extremely unlikely, but the threat still exists, and we, not the proponents, nor the shareholders, live here, and have to face this ongoing threat. We could also become a target for terrorists, who seek to disrupt the flow of natural gas to the United States, or who seek to damage economic interests within the United States. If a tanker or the LNG facility were bombed or sabotaged in some other way, the consequences for local residents would be catastrophic. Not only do we have to live with these threats, but anyone visiting this locality, planning to return to it, planning to vacation here, or planning to take up new residence here, will be aware of this, which could easily keep people from moving to the area, something that's sorely needed, after years -- decades of out migration. So, to conclude, some will say that the courageous and bold thing to do is to support this industrial development. They'll say that it's only people who are backward and timid who would not be glad to see it go ahead. We contend that the backward and timid thing for us to do is to quietly go along with something we can clearly see is not going to benefit us, rather, it will only benefit people who do

not live here, and who have no interest in the long term health of this rare and precious natural environment we call home. We want to state, as powerfully as we possibly can, that we are opposed to the development of the proposed LNG facility and petrochemical plant, regardless of the assertion that it will bring some temporary economic benefits to Guysborough County. Thank you.

THE CHAIR

Okay. Thank you very much. Does anyone have any questions for Ms. Reed, before she goes? Any questions on this presentation? No? Okay. All right. Thank you very much.

MS. REED

Thank you.

THE CHAIR

That concludes the intervenors. So, we do have lots of time available for a general open forum. Anyone who wants to raise an issue, make a statement, or just voice your opinion, or ask a question, if you haven't had a chance to do so, so far, this would be the time. Yes?

OPEN FORUM

MS. GAGNON

Chantal Gagnon, Ecology Action Centre. Your presentation made me think of something. The other day, yesterday, the gentleman -- I forgot your name -- the gentleman from Shaw, Stone & Webster -- hi -- you showed a little sample of the plastic pellets that ---

MR. PURVIS

Yes.

MS. GAGNON

--- would be produced at the petrochemical site. So I'm wondering, because they're very very tiny, or at least sort of like grains of rice or about that dimension from what I could see, what are the measures in place or what are the guarantees that these pellets would not end up in the water, in the marine system, or on the wharf, and then run off during a heavy rain into the water and end up in the fish or in the birds that eat the fish and that stuff, because they're pretty tiny. So I'm wondering what ---

MR. PURVIS

My name is Dave Purvis. I'm with Shaw, Stone & Webster. The answer to that is that we have a total containment system within the plant. The pellets

actually float on the water and we collect them with a vacuum system and we discharge them as a waste from the facility. So there's very small amounts. These are really spills. They're light pellets. They're inert. They do no harm. You can eat them if you like. They're a good laxative.

MS. GAGNON

So how often -- as soon as they would end up in the water, you would end up having a measure in place to pick them up?

MR. PURVIS

We have collection systems. We have drainage systems, collection pits in the polyethylene units and the polypropylene units where these materials are collected, separated, before the water is actually discharged to the waste water treatment system. So there's a primary containment system, a secondary and a tertiary system before the water is released from the facility. And we normally -- we normally design for the worst case conditions. So this might be a flash storm, a heavy rainfall. So we look at all the climatology of the site and design accordingly.

MS. GAGNON

I have a second question, Mr. Chair, if that's okay.

THE CHAIR

Sure. Yes.

MS. GAGNON

Regarding the safety for the fishermen, I know there will be, from the report, warning as to when LNG ships come in so that the fishermen can be notified. I'm wondering what is the procedure for fishermen to get in and out of the harbour when the LNG ships are there or when they're turning around to go out in the sense of do they have to -- is the route that they'll have to take to go out and in of the ocean a safe one for them, and will they be impacted in hours lost to get to their traps or not. What is -- what will the procedure for that and how will that affect the fishermen? Thank you.

MR. DUNCAN

One of the -- as I mentioned in the presentation earlier is that a lot of these issues associated with marine traffic, ship safety, ship routing, all have to be conducted in consultation with Transport Canada as well as other agencies such as DFO. And this will be conducted through that -- what we refer to as the

TERMPOL process. And this process would evaluate shipping routes, it would evaluate potential traffic on other -- or impacts on other marine vessels, including -- including fishing boats, but also other commercial vessels in the area. So the short answer to your question is that there will be procedures in place and processes to alert vessels in terms of the frequency of traffic and the procedures around these vessels. But those procedures would be developed in the context or in consultation with Transport Canada and their required procedures for these vessels as well.

MS. GAGNON

A quick clarification. Do you know if the TERMPOL process involves consultation with the fishermen? Like, will Transport Canada -- do you -- you might not be aware. Would you be aware of that?

MR. DUNCAN

Not specifically, but I -- you know, my expectation is with -- through DFO and Transport Canada, there are regulations and requirements that manage all vessels in the area, and there would have to be some consultation with the local fishers and the local users, marine users in that area, to establish what exactly those

patterns are. We tried to describe them in the EIA and generally what the seasonality issues are associated with the various fishing industries, but there will be also other boat traffic in the area as well, and there needs to be consultation on what those activities are and what those -- the current traffic patterns are to ensure that it's appropriate.

THE CHAIR

Also, I believe we have a representative of DFO in the audience tonight. I don't want to put him on the spot, but if DFO has any comment that they would like to make, feel free to do so.

MR. MacLEAN

Hi. Mark MacLean from DFO. I'm not that familiar with TERMPOL, so I don't think I can specifically answer the question. That's a Transport Canada-led process, so I think it's best to put that to Transport Canada.

THE CHAIR

Okay. All right. Thank you.

MR. DUNCAN

I didn't mean to implicate DFO and put him on the spot, but TERMPOL is -- as Mr. MacLean pointed out, is administered through Transport Canada. There are

participants in this process such as DFO and Environment Canada, who bring expertise to that process associated with impacts on fisheries, fish habitat, but as well as issues associated with emergency, environmental emergency response planning that Environment Canada manages. So there are -- within those agencies, they bring that expertise to that process. But as I've said, Mr. -- as Mr. MacLean pointed out, that process is administered through Transport Canada. And I don't believe there's any Transport Canada representatives here tonight, so ---

THE CHAIR

No. I was going to say, to our knowledge anyway, we don't. Yes.

MS. REED

Katherine Reed. I'm just wondering, if the project goes ahead and if there is disruption in the local fishery, and the fishing enterprises lose catch, will those fishing enterprises be financially compensated for the catch they've lost.

THE CHAIR

Okay. I'll let Keltic try and answer to that. And I'm not sure if DFO wants to comment on that at this point

or not. I'll leave that to them.

MR. DUNCAN

I think we've outlined specifically in the EIA that there would be compensation measures associated with any loss of fisheries resources in that area. Obviously we would be working with the local fishery folks to establish monitoring patterns and programs. We would want to look at the existing catches that are experienced in that area. We'd want to set up monitoring programs to ensure that any activities from the project or the project itself -- if it has an effect on the resource, if there is a demonstrated effect on the resource, there would have to be a compensation plan associated with that. So that is something to be developed in consultation with the local fishers as well as this is also managed -- not to put DFO on the spot, but we do -- they administer and manage the fishing resource in that area, so we'd have to work with -- specifically within those catch limits and those fishing licenses and evaluate those on a -- from an administrative perspective as well.

MR. NEGUS

Am I mistaken or do these ---

THE CHAIR

Sir, could I ask you to identify yourself, just for the record?

MR. NEGUS

Colin Negus.

THE CHAIR

Thank you.

MR. NEGUS

Am I mistaken or do these LNG plants have exclusion zones around them for local shipping traffic and -- well, me, for instance -- fishing around that wharf? Is there going to be an exclusion zone, and how big will it be? Or does Transport Canada gotta make that up for you to? Or would we talk to DFO after Transport Canada and you guys talk? Because I'm a fisherman and I find that you guys talk to DFO and tell us to go to hell. We're the fishermen. We're, after all, just the guys that are going to get hurt. I'm sure that guy is gonna retire from DFO when he gets a long enough time in and his work will be done. You guys build your project. I lose all my fishing grounds. Who do I go to? Transport Canada? They gonna hire me? Give me a pension plan? You guys gonna hire me?

THE CHAIR

Keltic, do you want to provide an answer, please?

MR. DUNCAN

Yeah. Sorry, just in response, there is no -- the exclusion zones I think maybe you're referring to specifically refer to probably residential areas or other industrial uses around the area of the plant itself. I don't -- and Rob, maybe you can correct me here if I'm wrong, but it doesn't exclude the vessels from operating in that area or fishing to occur in that area. These LNG vessels operate and come into some of the busiest ports in the world, not only for other ship traffic but also other ports that do have fishing vessels in them. So there are no what I would consider restrictions or exclusions from the fishing boats or the activities. There would have to be -- these things would have to be obviously managed just from a safety perspective to ensure the safety of people using those areas as well as the LNG vessels themselves.

MR. NEGUS

How many people are in Boston Harbour?

MR. DUNCAN

I don't know specifically the number of people in

Boston Harbour, no.

MR. NEGUS

How many people are in Halifax Harbour?

MR. DUNCAN

Are you referring in Halifax itself or as a population?

MR. NEGUS

In the harbour. How many ships and boats and fishermen do you see in Halifax Harbour?

MR. DUNCAN

Well there's a fair amount, but I don't have the numbers in front of me, no.

MR. NEGUS

There's a fair amount of boats in Eastern Passage that go out and fish in the ocean. There's none that fish in the harbour. Our harbour and our bay will end up the same way. What are you guys going to do about me as the last local fisherman in Isaac's Harbour after you destroy, in my mind, half of my fishing grounds, 45 percent of the way between RedHead and Bear Trap Head?

MR. DUNCAN

I think as we outlined in the EIA, just to reiterate, we did evaluate that there would be a loss of fish habitat and some lobster habitat when the marine

terminal itself is built. We've identified that as an issue that would have to have some habitat compensation measures developed and habitat created to compensate that loss of physical habitat. We will be evaluating, as I indicated earlier, what the potential effect is on the fishing resource. As I mentioned, we'll be monitoring that resource, working with you and with the agencies to ensure that if there is any loss in catch or any loss in productivity, that would be compensated by the project. That would have to be something that would have to be determined.

MR. NEGUS

Have you ever worked for Mobil Oil?

MR. DUNCAN

No, I haven't.

MR. NEGUS

Well they've been doing so much monitoring since they built that project, I can't even get anybody from Mobil Oil on the phone.

THE CHAIR

Okay. Thank you. Do we have anyone else with a question/comment?

MS. GAGNON

Chantal Gagnon, Ecology Action Centre. I'm just wondering about the habitat compensation plan. Maybe DFO will be better to answer, but from what I saw, so you would -- the habitat compensation plan to replace the habitat loss would be to create a new habitat or to assign a new section for fisheries. But the way I understood it, it was to create a new habitat. So if that's the case, how -- just out of -- how many years does it take for that new habitat to get to the equivalence of the habitat that was before in the sense of ecosystem life form, productivity, all that stuff? And maybe -- I don't know, maybe some of the people behind you know the answer more than you, but I'm just wondering on that.

MR. DUNCAN

I'll just see if I can dig up the response here. Generally it would be associated also with the productivity of the area in question that you are infilling or destroying. Have to evaluate that productivity and then compare it against and monitor it against the newly created habitat. But specifically on the length of time to bring it up to a level of productivity, as I mentioned, it has to be relevant to

the site as it was before. But I can give you -- maybe someone here has some general information about that. Again, just to reiterate, it depends on the type of habitat you're creating, the kind of baseline condition that existed before. But you know, for things such as lobster habitat, with these types of hard surfaces, you need the establishment of vegetation and kelp specifically on those hard surfaces and you'd expect the productivity to come up to something comparable or relatively comparable in a one to three-year time frame in terms of allowing that type of vegetation to establish on those surfaces.

THE CHAIR

Okay. Thank you. One more question. Yes.

MS. BREEN

I'd like to turn the microphone around, if you don't mind having my back, because I'd really like to speak to the folks.

THE CHAIR

Okay. That's fine.

MS. BREEN

Is that okay?

THE CHAIR

Sure.

MS. BREEN

And watch me trip over it and fall right on my face.

THE CHAIR

I'll just ask you to identify yourself, please.

MS. BREEN

I will, once I get there.

THE CHAIR

Okay.

MS. BREEN

Hi. I'm Wendy Breen from Spanish Ship Bay. Some folks I know, some I don't know, but I've been born and raised here. I've been following this. And I'm sorry about my back.

THE CHAIR

That's okay.

MS. BREEN

I know people are worried and people are afraid when they don't know what they're dealing with. I'm a housewife. I'm a retired bank teller. I'm not an LNG expert, neither do I know a lot about pollution trends or places being bombed, but I just wanted to tell you what it's like to live in Canada's petrochemical

valley. Rick was born and raised in Spanish Ship Bay and we met working in the bank in Halifax. And you know what banks do. They move you. So move, we did. One of the places we ended up was Sarnia. And we buy a house in Corona, which is south of Sarnia. It's in Canada's petrochemical valley. It has the highest concentration of petrochemical plants in Canada. From my kitchen window, I could see the flares from -- I don't know how many -- Petrosar, Polysar, Shell, Imperial Oil -- lots of them. What can I tell you? It brings prosperity. Yeah, they're not too good to look at in the winter when the leaves are off the trees. In the summer, they usually put big berms of plants around them so you don't see them. If this is what the concern is that what's it going to do to Guysborough County or our shore -- like, I live on the ocean in Spanish Ship Bay. I'm not worried about what it's gonna do. I don't live five miles from it or I don't live a quarter mile from it, but I have lived there, and I bought the house by choice. The plants were there before I went. But what I saw was people who had a chance, people who had prosperity. We don't have prosperity here. I know what it's like to live on two

dollars a week after you're finished being paid at a bank. And that's two people working. Sorry, honey. But it would seem to me that -- and I know people are worried about their livelihoods, and that's a very valid point, but I think we have to look and say, hey, are we just so afraid of what it might be, that we can't even dream what it might be -- what it would be like? I can only tell you from my experience. Our kids went to school. One when to Dalhousie and said, "I'm not going to Ontario to work. I'm not going to be like you and dad. I'm not going to be away from my family at Christmas. And when my kids have Sunday School concerts or ball tournaments, they're going to have grandparents." Well, do you know where she is now? She's in Ontario because there were no jobs when she graduated from Dalhousie. And it would seem to me that if we would just give this a chance and not be so focused on what it could be, maybe we should really think about what it could be, and that our children and our grandchildren won't have to leave home. What an opportunity it is. As I said, I'm not an expert on terrorism or bombing or anything, but I would think that if there are places to be bombed, there'd be a lot

better places than one petrochemical plant. There are higher concentrations of them in Canada than this. As I said, I lived in one where there were many. I'm not a fisherman, a fisherwoman. I've never been. I sure do love lobsters. But I do know that in the Juan de Fuca Straits in British Columbia, where I've spent some time, there are lots and lots of big big boats going by those shores every day. It doesn't mean that they won't have a problem, but it means I don't know of any problem. Where I lived in Sarnia, the big boats carrying different types of petroleum -- and as I've said, I'm not an expert on it -- but you could see the big boats going by every day. They went all the way down the St. Clair River, through Lake Erie, through Lake Ontario, through the City of Montreal, and out into the St. Lawrence River. You know, I'm sure that it -- it might have been a problem, but I don't ever remember hearing about it. All I'm saying is I'm front here, I'm not from away, I'm not somebody who's saying, "Oh, we have to keep our pristine shoreline." Yeah, we do have to keep our pristine shoreline, but is it at the expense of our children and our grandchildren or our great grandchildren? Let's just think this

through. This is a great opportunity, not just for us, but the people who come behind us. And not just one village, not Coddle's Harbour or not New Chester. People who come from Lower Meteghan, their kid has a degree in engineering. He doesn't have to go to Fort McMurray. Maybe there's opportunity here. Let's just think about what it can be. And I'm sorry that you've had to put up with my back, but thank you for letting me speak.

THE CHAIR

Thank you. Anyone else? Yes, please.

MR. MacISAAC

Who wants to see me? It doesn't matter to me.

THE CHAIR

You can face it however you like.

MR. MacISAAC

I'll actually take the mike out if I can. Then I can do both.

THE CHAIR

Okay. It's taped to the floor, though. Don't go too far.

MR. MacISAAC

Oh, yeah, yeah, yeah. I know, I know. My name is

Chris MacIsaac. I'm 24. I'm the only 24 year old in Isaac's Harbour. In fact, I'm one of the only 20 year olds in Isaac's Harbour, so I'm kind of a minority there. I live amongst 60s and 70-year-old people. I go to the fitness centre with them sometimes at night. It's fun. I mean, I get to hear their stories. But at the same time, I miss the social aspect of living in Halifax where I had my education. Now, there's going to kind of be two parts I want to speak about. I moved back home for an opportunity to work with the RDA. That's where I'm employed. I'm a Development Officer with the RDA. When I moved home, I kind of knew a little bit about Keltic, but at the same time, I moved home because I love Isaac's Harbour. I've grown up there. I walk in the river. I swim in the pools in the river. I clean the shoreline in Isaac's Harbour. I mean, I just love it. That's where I grew up. That's the place I love. It's the place I know. At the same time, I know if something doesn't occur there, then I'm not going to be there much longer. I mean, the opportunities for me staying there -- with the RDA, there is one, but if that were to go away, then there's nothing. I mean, where am I going to go next? Well,

probably back to school and then probably somewhere out west. More than likely B.C. So you take one opportunity away, and yeah, there I go. I'm gone. That's it. I'm skedaddling out of here. So the way I want to look at this project is from a macro point of view. I mean, I can look at it in a micro point of view. I could say how does it impact me. Well, I love my river. You're gonna put a dam at Meadow Lake. I'm not a big fan of that personally, but at the same time, I realize I'm one person. One person isn't going to have a huge impact when you're talking about a province, a continent that this is going to impact. I mean, for me, one dam is not as important as one person my age moving into my community. I'd rather see someone else my age move into my community than one dam built. So basically it's taken me a little while to figure this out. I mean, I had to do a little bit of soul searching because I love Isaac's Harbour, I love the way it is, but at the same time, I'd love it to be a prosperous area. I'd love to see young people there. I'd love to see young families there. I'd love to see Keltic there. I mean, it would be a great part of our community. But at the same time, I want to mention a

couple of things. ExxonMobil were there. It doesn't seem like they're there right now. I hope that's not the same for Keltic. During their construction phase, ExxonMobil did a number of things I did not like, and I know a number of the fishermen in the area did not like them. They contaminated the harbour. They did not -- well, I don't know if it was regulated then, but they did not catch any of the fill that they put into the harbour, which then went upstream into the river, into the basin, pretty much ruined that ecosystem. So I hope those lessons are learned by Keltic. There are a number of issues that came from the ExxonMobil project that I don't think they really anticipated at the time, but for future development, I hope they are considered for the people in the area that will be directly impacted, such as Colin. I mean, like you said, if they take away your habitat, what's your lobster license? What's the good of having a new boat? Nothing. Yeah. So basically, learn from ExxonMobil and please bring someone else my age to Isaac's Harbour. That's all I got to say.

THE CHAIR

Okay. Thanks very much. Okay, a couple people in the

audience. Please.

MS. REED

Katherine Reed. I'd just like to say that we should be clear that we need economic development in this region of the province. We desperately need economic development in this region of the province. The question is do we need this kind of economic development in this region of the province. I think not. But I know that there has been a failure of leadership and a failure of the attempts to bring economic development here. There's an ongoing -- some kind of log jam happening with getting wind power happening. I can imagine, you know, offshore windmills or, you know, windmills in remote areas where nobody cares about the noise they make, that kind of thing. And I think that is possible if people could ever agree on how it is to be done, and sold to NSP. But I don't think we need petrochemical economic development, and I don't think that the two ideas necessarily cancel each other out. Yes, we need economic development. No, we don't need more fossil fuels.

THE CHAIR

Thank you.

MR. REED

My name is Bob Reed, a retired field engineer, and I thought -- this meeting is starting to liven up a little bit now. It was pretty stiff to begin with, and still is, I think. But when I arrived back from out west in 1980, I happened to go into my dad's office, and he and a neighbour were there, and they're both strong liberals, and this fella came over to me and he said -- John Buchanan was in power then -- and he said, "Welcome to the land of milk and honey." But I -- I found out that it's not milk and honey any more, but it -- the -- the poverty and the lack of job opportunities in this county are just unbelievable. And I might mention something -- and my friend, Mr. Dunn, over there might relate to this -- environmentalism. In 1964, I went to Crossfield, just north of Calgary, to a natural gas plant there, PanAmerican Petroleum. We started building it, and we dug a few holes, poured some concrete, put some rebar in, and one day a man came out there and he said, "Where's your -- have you got a building permit for this?" And I said, "Well, yeah. PanAmerican Petroleum are looking after that. Lew Fitzgerald." "Oh," he said, "Well, I haven't got

one." And I said, "You're not gonna shut us down."  
"No, no," he said, "I'm going into Calgary this  
afternoon," he said, "and I'll drop up to the office.  
I'll give him one there." So that was the end of the  
environmental survey and whatever, and I could -- now,  
if we want to go back 40 years, I can give you all pink  
slips and you can go home. But I see you're not  
agreeing to that, too many of ya. You got good jobs  
there.

THE CHAIR

We're volunteers. We don't need pink slips.

MR. REED

And now to get to the meat of the thing. Where are we  
going to get our gas?

THE CHAIR

Is this a question for Keltic?

MR. REED

Russian -- Russia? Algeria?

MR. DUNCAN

Sure, I'll ask Mr. Derek Owen from Maple LNG, who is  
the LNG component of the project. He can respond to  
the actual supply question.

MR. OWEN

As you can understand -- you've heard about the status of the project, and with regard to where we're going to get the gas, we are in the very early stages of this project, and at this time, without any approval whatsoever up to this time with regard to the regulatory process, we of course would not be in a position to undertake and sign any agreement. We're in discussions through our major -- through the major shareholder, which is 4Gas. They're in discussions with multiple sources. I can tell you that. But I will confirm that there is nothing signed yet because when you're out looking for gas supply or investors, if you do not have a regulatory process in place and a permit in place, then your leverage to open up any meaningful discussions is very very limited. And I think we can all appreciate that fact. Okay? So I'm being open and very frank with you. So really, until we have the environmental process complete and we have the approval or approval with actual conditions, in many people's eyes, we don't have a project. And that's understandable because this is the -- as was mentioned earlier, this is really the first step, and the very very early step -- is the first step, the

first major milestone for the project. So that's what -- that's where we are. Now, unlike other LNG projects, 4Gas has a worldwide portfolio within their corporate structure of how they operate worldwide. 4Gas are very unique in the world. Their sole business program in life is to -- is to develop and operate LNG terminals. So in actual fact, with this project here -- and I've been over 40 years in the business -- with this project here, you have in Maple and in 4Gas one of the world's leaders in understanding LNG. And the basic -- and I mentioned this last time -- their basic concept is that through a worldwide structure of developing LNG products -- and unfortunately this evening in the condensed version of this overview you wouldn't have seen a little bit more detail which we showed earlier in the day in which it showed that 4Gas currently are -- have four major LNG projects in the pipeline. There's one in South Wales, there's one in Rotterdam, there's one in Bordeaux, France and there's Goldboro, and the fundamental concept is that 4Gas will locate and develop LNG terminals at strategic locations around the world and will then go to the LNG market supplies which, as you possibly know, are many --

Russia, Algeria, Qatar, Trinidad, et cetera, et cetera -- and will market the terminals that they have worldwide to suit the best location for the supply of that gas. And as I've said right from the outset, we do not have yet the gas supply signed, we need first to get through this environmental process and then we can go forward with confidence to say, "Look, we have a project, we have the approval," and during the course of time we will then sign up the gas.

MR. REED

The -- 4Gas is what, primarily a natural gas broker? You might call them a broker?

MR. OWEN

No, 4Gas actually develop and operate the LNG terminals and then they will then go to the upstream suppliers and say, "We've got these terminals in strategic locations around the world," and then will then arrange supply to come into the appropriate terminals, and the same -- downstream of the terminal they then into -- they then enter into a detailed review of what the market would be downstream of those terminals. So, they operate -- a very similar concept to Maritimes and Northeast. Maritimes and Northeast operate pipelines,

as you know, and 4Gas and Maple will operate terminals, a very similar concept.

MR. REED

Right. Um-hmm. In order to get gas out of Russia, you need to build a 2,000-mile pipeline, don't you? Isn't that -- to get it to St. Petersburg from the Urals?

MR. OWEN

There's many sources of gas right throughout -- and I'm not really fully familiar with all the individual gas fields in the various countries and I'm not really familiar with how they will get that gas to an LNG plant to gasify -- to make LNG.

MR. REED

I have another question on -- providing we get this plant -- and I really hope we do, we certainly need it -- what kind of a petrochemical complex is it? Is it polypropylene, polyethylene and PBC, those -- I'll take those three big ones. Do we -- do all of those ---

MR. PURVIS

If you want to draw an analogy, it's -- with Nova Chemicals in Joffre, Alberta ---

MR. REED

Yeah. Um-hmm.

MR. PURVIS

--- where they run three ethylene units and a lot of downstream polyolefin units.

MR. REED

Right.

MR. PURVIS

So, this complex will be a smaller version of what Nova Chemicals have in Joffre. There will be one world-scale ethylene unit with four world-scale polyolefin units, there will be three polyethylene units and one polypropylene unit. The technologies have all been selected as environmentally friendly, safe.

MR. REED

No PBC?

MR. PURVIS

No PBC, no ethylene oxide, no ethylene glycol. This is a very simple, straightforward ethane cracker with downstream polyolefin units.

MR. REED

I might add that in 1959 I went through Alix, Alberta -- we'd had a little survey job to do there -- they had boardwalks in Alix, Alberta, which is right next-door to Joffre, as you well know.

MR. PURVIS

Right. Yeah, I worked for Nova Chemicals in Alberta.

MR. REED

Yeah. You knew Bob Blair then?

MR. PURVIS

Yeah, I do. I wasn't there at his time but ---

MR. REED

Right. Okay. Alberta Gas originally. We certainly need this project. This county has been gutted out since 1929. I guess earlier than that, but in 1929 the Guysborough railway wouldn't go through so that was another blow, and since that time why, of course, everything has been going downhill. Another question, are you going to ship pellets, high density, low density?

MR. PURVIS

Yes, the plan is to ship about 80 to 90 percent of the pellets in bulk by sea and the rest of it will be used in Canada and some parts of the Northeastern US.

MR. REED

You're not going to manufacture any rope or any ---

MR. PURVIS

We're not going to manufacture any rope from

polypropylene.

MR. REED

--- styrofoam cups or any of that?

MR. PURVIS

Of course the good thing is it might spawn -- you know, having a polyolefin complex there producing pellets might be an opportunity for converters to move into the area and produce some finished products.

MR. REED

What about a greenhouse with all the waste -- the heat coming off the ---

MR. PURVIS

There's not a lot of waste heat, because I'll tell you this is -- one of the advantages of this complex is it's totally energy-integrated. So, we have actually done everything we possibly can to minimize the amount of energy consumption in this complex. So, we're using the cold in the LNG to fractionate our extraction in our extraction plant, we're using the waste heat from the power plant to vapourize the LNG. So, we've done absolutely everything possible to make this energy-efficient, and that's not only from an environmental point of view, we have a selfish business reason to do

that. We want to minimize the operating costs in this facility.

MR. REED

You're going to generate your own electricity. Are you going to sell it to Nova Scotia Power?

MR. PURVIS

That's under investigation at the moment.

MR. REED

Under investigation. With these new tankers -- there's a new generation of tankers coming in. If we talk from a safety point of view, I don't think any longer do they build four and five sphere tankers, they now build tankers which have bullet tanks with saddles on them and everything is below deck and in one of those -- where there used to be four or five now we have probably 35, 38, 45 of the different types, and by the time this plant gets into production there'll be another safeguard there. Double-walled, aren't they?

MR. PURVIS

I stop when I get to gas, so I'll turn it over to Rob. He's the LNG man.

MR. SCHONK

I must say -- admit that I'm not an energy vessel

expert, but what I know is that they are actually double-hulled, yeah.

MR. REED

I think those are all the questions I have.

THE CHAIR

Okay. Thank you.

MR. REED

Thank you very much.

THE CHAIR

I'd just note for the audience there was a mention of the longer presentation that Keltic provided this afternoon. There are copies of that available at the back of the room. There was a gentleman at the back. Did you have a -- yes, please.

MR. VAN HEMERT

My name is Les van Hemert and I live in Wine Harbour, which is about 20 kilometres east of Sherbrooke, and I wanted to thank the panel for letting me say a few words this afternoon. And I've just come back tonight because I've heard Warden Clark's presentation and Katherine Reed's presentation and the fishing presentation, and I failed to do something this afternoon which I can correct now with your permission.

I wanted to leave with the panel two pieces of paper which is a summary of my summary this afternoon.

THE CHAIR

Okay. That's fine.

MR. VAN HEMERT

Can I table two pieces of paper?

THE CHAIR

Yes, please ---

MR. VAN HEMERT

And would I need to be sworn in for that?

THE CHAIR

No, no. Just give them to Jim Gordon, please.

MR. VAN HEMERT

Well, may I read the titles into the record?

THE CHAIR

Yes. Sure.

MR. VAN HEMERT

Well, the first one is an image off the internet from Google of Sable Island, offshore Nova Scotia, and it shows the Continental Shelf, and the second one is an artist's impression of what I mentioned in my presentation this afternoon called "Baby Sable Island," so -- and it's the sea floor environment, a sketch of

design criteria. So, could I leave these with the panel?

THE CHAIR

Yes, please, with Mr. Gordon here.

MR. VAN HEMERT

Okay. Thank you. If I could just add a couple of words. It was great to hear the positive endorsement from the municipality and I was -- I want to say that I, too, am in favour of the project in principle. I hope that remained with the panel this afternoon. My only quibble is with the location of the project. And when I heard Katherine Reed's presentation and the fishing presentation, I thought that I would try to show that if we moved this project offshore, keeping the project but moving it offshore, I think we would have all the jobs that have been talked about in connection with the petrochemical and the LNG, plus we would address the concerns of the local fishing community. So, that's what I meant to convey this afternoon. I know how badly we need a great new project. I've never been against the project in principle. I just think that any location on the mainland is always going to -- it cannot help but end

up in 20 years of operations or 50 years of operations degrading the environment below interest for inhabitation, and we don't have to do it. We can have the project without risking the mainland at all. That's what I wanted to say. Thank you very much.

THE CHAIR

Okay. Thank you. Anyone else from the audience? Please?

MS. REED

Katherine Reed again. I've been reading quite a bit of material about the proponents, and in spite of all of my efforts to understand the structure of this thing, I still don't understand it. So, I infer, therefore, that other people don't understand it, too. So, I just would like to ask some basic questions. Now, I'm getting -- starting to get a handle on, okay, Maple and 4Gas will operate the LNG facility. I still am not clear about who -- what is Keltic. Is it still involved or is the project now just called that? And who will operate the plastics plant? And is it likely that those proponents will remain over the duration or is it likely that these interests will get changed -- will change hands? Because it's like nailing jello to

a tree sometimes, keeping track of the mergers, acquisitions, restructuring and all of that. So, perhaps if you could clarify that for me it will help everybody.

THE CHAIR

Okay.

MR. DUNCAN

I'll have Kevin or probably Derek respond to those individually to talk about the structure of the two partners in this project. Just for clarification, it's called the Keltic project, there are the two main components, the LNG and the petrochemical, and there are responsibilities within the projects for those different components with the partners. So, they can outline to you specifically how those responsibilities are organized within the project structure. I'll first ask Kevin just to comment on the Keltic structure.

MR. DUNN

Yes, Keltic sold their interest in the petrochemical to Maple or 4Gas LNG, and that happened in March of this year. Keltic is also working with three major international petrochemical companies out of the United States -- come in as partners and they could be

partners in the petrochemical complex. We're also working with someone on the cogeneration power plant as a partner. These have all come to the forefront and made the announcement sometime. At this time we're not at liberty to say who they are, but they'll be partners with Keltic and they will operate the various plants.

MR. OWEN

As Kevin mentioned, the LNG portion of the complex was sold to MapleLNG and that was first signed up in March and the closing of that agreement was -- took place on the 15th of September. MapleLNG is a Canadian-registered company in Halifax, I am the general manager, I'm a permanent resident of Canada, I've been associated with the East Coast projects from 1982, I've been involved in every East Coast project in Canada with the exception of Deep Panuke, and I joined Maple in July of this year. The Maple structure is that 60 percent of the Maple shareholding is held by 4Gas North America, which is 100 percent owned by 4Gas B.V. of the Netherlands. The 40 percent holding is held by Suntera Limited of Canada. By the way, 4Gas North America is also a Canadian-registered company and so is Suntera Canada Limited a Canadian-registered company. So,

those are the two partners that constitute -- that make up the 100 percent of Maple. So, it's 40 percent of 4Gas North America, which I say is 100 percent owned by 4Gas B.V. of the Netherlands -- yes, thanks, Rob -- 60 percent 4Gas North America, 100 percent owned by 4Gas in the Netherlands, and I explained in my earlier explanation the worldwide structure and portfolio that 4Gas B.V. of the Netherlands have with regard to LNG. Thank you, Mr. Chairman.

THE CHAIR

Okay. Thanks.

MR. FRASER

Okay. I wasn't going to say anything but I'm here, anyway. Donny Fraser from Sherbrooke, from small business. I'm just going to ramble on a little bit, but in the gas -- because I kind of support the project. I don't know much about LNG but we need something here, and in the gas industry in the year 1999 there was 1,200 and some retail gasoline stations in Nova Scotia. Last year at the end of the year there was 612. Everyone that came out is from rural Nova Scotia. There used to be 12 in our municipality. We're down to four. So, does that tell you anything

how we're going? We're sliding away and we're going fast. Unless we can get stuff coming up, more people are going to be gone. I hope it's not like the Sable project. When they came there was going to be 83 working associates and I was on council at the time and we were hoping if we could get 10 to live in our municipality we were going to be doing good, and we had a few move into the area and you could see the difference in our area. There was people who were making more money and it was working out, but they've just kind of slipped through the cracks and most of them have gone west and I don't know if there's anybody living in the municipality anymore, is there? Pardon? We have four of the operating associates out of the 83. Okay. So, I'm wrong on that. Sorry about that. I think it would be good to get the area back up and running. Like you go back 10 years ago, we had a dance here when we had our 24-year-old talking, different nights we had to lock the door at 9 o'clock. Now we can't get enough people to come to a dance to have a dance, so it would be nice to see some young people around and get our economy prospering again.

THE CHAIR

Okay. Thank you.

MS. CAMERON

Shirley Cameron from Sherbrooke. And I'm like Donny, I wasn't going to say anything but I just -- I'm just sitting here and I have to say -- anybody that knows me know I usually have something to say. Change, everyone is afraid of change, and there are fears associated with change, the unknown, we don't know. But I can remember 30 years ago when the government was going to take over Liscombe Lodge. My husband was involved and all down the shore everybody said, "Oh, it's going to close our shop, it's going to close this, it's going to close that, it's going to take all the jobs away." Well, if you look at the shore now, there are a lot more places that are -- that weren't there 30 years ago, there's at least three or four bed and breakfasts here in Sherbrooke alone that are operating. Liscombe Lodge has provided lots of employment to some people, most of them women who would never have the opportunity to work, but they can -- it's seasonal work but at least they were able to work and to -- because of that, their whole lives were enriched because they had more disposable income. And all I can say, Mr. Dunn, I wish

you luck and we need some young people in here and we need to give you a chance.

--- (Applause)

THE CHAIR

Thank you.

MR. REED

Bob Reed again.

THE CHAIR

Yes.

MR. REED

Has anyone ever thought about the idea of subsidized housing? Thompson, Manitoba, I went into Thompson, Manitoba in 1957, you had to fly in, you couldn't get in any other way, now it's a city of about 12,000 people. I know that most petroleum companies don't want anything to do with housing, but there are two things we need in Guysborough County and one of them we hardly ever see, and that's a payroll, we need a payroll and we need some population, and we need some seed money to get housing -- at least stay overnight in some kind of houses when you get snowed in, you can't get home to Antigonish, because that new road and the old one are both going to be umbilical cords that

everything is sucked out of Guysborough County and into Antigonish, and I think we should somehow try to get some interested parties into developing a housing development.

THE CHAIR

Okay. Thank you. I don't know if that's a question that Keltic can address. We'll just take it as a comment. Okay.

MR. NEGUS

I'd like to know how I could get into the business of selling ---

THE CHAIR

I'm sorry, your name again just for the record, please?

MR. NEGUS

Colin Negus.

THE CHAIR

Thank you.

MR. NEGUS

I'd like to know how I could get into the business of selling terminals that don't exist on land I don't own, because I'd like to get into that business.

THE CHAIR

Okay. I don't think we have that answer right now.

MR. McALLISTER

Yes, my name is Kevin McAllister. I made a presentation earlier today. I was just wondering, since they were talking about resources, that -- what plans does Keltic have in place for compensation, whether it be fisheries, forestry, mining, for the loss of resources or income? Does Keltic plan to compensate anyone for their loss of fisheries, forestry or mining, or are there anything in place that Keltic could state in a concrete way, what they intend to do with people who have lost due to their project?

THE CHAIR

Okay. I'll see if Keltic wants to address that.

MR. DUNCAN

As we tried to explain -- and maybe we haven't been clear, but there are some compensation measures in place, already described or at least conceptualized, about the potential effects. First of all, we looked at one avenue for compensation associated with physical loss of fish habitat, so we would look at compensation issues if there's a loss of fish habitat, and these are the types of things that we would do for any sort of typical construction project that would result in loss

of fish habitat in Nova Scotia or in Canada in general. These compensation measures are generally well-established, the procedures and the way we go about them. That's fish habitat. The other compensation measures that we did talk about are also associated with wetlands. Typical of any construction project, if there's an impact or a loss of wetland habitat or function, we would work with the regulatory agencies to ensure that the wetland can be either replaced or additional wetland created in some fashion to offset this loss of wetland habitat. We also talked in the EIA about compensation associated with the loss of the fisheries resource or income associated with that, and I tried to explain earlier that we would evaluate that, we would be doing -- working with the local fishing community, including the gentleman here, to ensure that we understand what the productive catches are, what the value of those catches are, and monitor those throughout the construction and operation of the project to determine if there is any loss of value there. If it is determined that the project has created a loss in fishing value to an individual, there would have to be a compensation plan developed to

address that.

MR. McALLISTER

And who will determine that?

MR. DUNCAN

We would determine that -- or it would be developed in consultation with the fisher as well as the regulatory people who are associated with managing the fishery, specifically DFO. DFO does have mechanisms and procedures in place that do address losses of fishing resources, compensation measures. These have been established on other projects in other areas, so these would be the types of things that we would work in consultation with DFO as well as local fishers.

MR. McALLISTER

Well, in my case, which we went over earlier today, it's been established that, according to 11.4, the lands taken up by the proponent and -- the proponents will remove the potential for mineral extraction from those areas, also stating under mitigation. Does that mean that they don't intend to mitigate any losses for the mineral exploration industry?

MR. DUNCAN

I think as we -- may have been pointed out earlier, the

mineral exploration licenses that occur on the property, they are subject to the requirements and conditions of the landowner. Keltic -- it currently isn't the landowner there right now, it is the municipality. It's within that zoned industrial area. Keltic does have an option to purchase that project (sic) -- if it goes forward and if the project is approved, it does have an option to purchase that property. Again, the exploration license that's there is subject to the conditions and approvals of the landowner itself.

MR. McALLISTER

So, what would be -- anyone who has losses, so to speak, whether it's fisheries or whether it's forestry or whether it's mining, what appeal process do we have if we consider our -- is it up to the company to decide if they are going to compensation mineral right holders or any other resource holders or any other -- is there any concrete plan that you're willing to put in place to say that if we've lost any type of resource that we will be compensated for it?

MR. DUNCAN

Well, as I mentioned, there is plans to evaluate that

lost resource specifically on the fisheries side. If there is a demonstrated -- it can be demonstrated that there's a loss in that resource, there would have to be a compensation for that. Those plans will be developed in consultation with DFO and the fishers and ---

MR. McALLISTER

Okay. But in my case ---

MR. DUNCAN

--- we'll determine if that compensation plan is required and necessary and needs to be implemented.

MR. McALLISTER

What about in my case for the mineral exploration industry, is there any regulatory body that is going to look into this?

MR. DUNCAN

The -- I think we tried to respond, I guess, to some of the questions you had submitted earlier in terms -- in writing. With regard to mineral exploration and extraction of that resource, it's managed by the Province of Nova Scotia. There is legislation in place that manages that industry and those processes.

MR. McALLISTER

Right.

MR. DUNCAN

Under -- and you're probably more aware of it than I am, but there are conditions associated with the exploration licenses that are conditional on the acceptance and approval of the landowner. The land is currently owned by the municipality, that's how it's been zoned, it's been zoned as heavy industrial, and so I would suggest that the exploration license or whatever development that would occur on that site would be under the guidance and approval of the landowner which is currently the municipality.

MR. McALLISTER

So that if a person or a company invests millions of dollars into a particular piece of property -- which Goldboro has been for over -- since 1868 in the mining and -- it was built on gold, and now a resource basically that built Goldboro is being overtaken by another LNG petrochemical industry and basically left out in the cold.

MR. DUNCAN

Again, this is probably a matter that's best left to the government department that's associated with managing and regulating these mineral resources.

MR. McALLISTER

I've dealt with many government departments.

MR. DUNCAN

Yeah. But the resource itself is subject to the conditions associated with the ownership. I mean, the land is owned by the municipality. If they choose to extract or develop that resource. That's in their purview and responsibility and rights as land ownership.

THE CHAIR

Mr. McAllister, sorry. Can I just remind you that you should address yourself to the Chair rather than directly to the ---

MR. McALLISTER

Oh, I'm sorry. Okay.

THE CHAIR

Please.

MR. McALLISTER

Well, the Municipality doesn't have any control over mining. It's a provincial matter. It's a provincial interest. So we want to know if Keltic is willing to step up to the plate and deal with mineral right holders or -- like they would any other resource

holder. They speak of forestry, they speak of fishing, and yet mining seems to elude them even though the community was built on mining and that mining has been there -- my claims have been there for 13 years. Other people's claims have been there for 25 years. There's a substantial amount of money invested, and yet at this particular time, they can go in, build a pipeline on top of my claims, put storage tanks there, and what -- what recourse are you leaving for the mining industry or any other ---

THE CHAIR

I think maybe, Mr. McAllister -- I think we've been over the issues, and I -- if I interpret correctly, I think the answer really is that it's Department of Natural Resources that manages this, and it depends on the permission of the land owner. And in this case, Keltic is neither the resource manager nor the land owner, so I don't think they're going to be able to give you an adequate answer or maybe the answer you're looking for. And I don't want to put words in your mouth, but if they're ---

MR. McALLISTER

Well, perhaps it ---

THE CHAIR

--- if you're asking if they're making a commitment to provide compensation, I think at this point, the answer would be no.

MR. McALLISTER

Okay.

THE CHAIR

Okay. Thank you.

MR. McALLISTER

All right. Thank you.

THE CHAIR

Anything else from the audience?

MS. GAGNON

Having a hard day today. Chantal Gagnon, Ecology Action Centre. Back to something more boring and everything. It's reflected from this morning when we were talking about the LNG storage tanks -- I was looking earlier back in their report to try to find it -- in regards to the spacing in between, the 43 metres, and then it talks about a deluge system for -- I guess as a mitigation measure in case anything were to happen. And so I would assume that deluge system is using water. I was trying to find how much water it's

using and whether that water is coming from the sea, if it's going to be pumped in from the harbour or if that's coming from the Meadow Lake water withdrawal, if that's included in what is expected to be the daily withdrawal or if that's going to be an extra withdrawal in case that deluge system was to be triggered for whatever reason. And then, as well, what would be the run-off effect of that intense a drop of water in case of protection, and if there was going to be testing of that system outside of an accident.

MR. DUNCAN

Yeah. I guess I'll have Rob Schonk from Royal Haskoning speak to some of the design issues associated typical -- and just to clarify, you're talking about a response mechanism associated with, you know, a potential accidental event on site?

MS. GAGNON

Yeah. It was in Section 9.21 and then later on in Section -- page 1045, I think it was. So yeah, mitigation and ---

MR. DUNCAN

And Rob, I think, can expand based on some other examples of terminal facilities that have been designed

other places in the world. As you can probably appreciate, we don't have the detailed design for this project complete yet, so we don't know exactly what the design of that site will look like with respects to -- with respect to the deluge system that you talked about and associated with emergency response. But Rob could probably speak to maybe some of the designs of other facilities or what's typically been used in other facilities elsewhere.

MR. SCHONK

Yeah. It's, I think, a matter of repetition of words, because I would also say that during the more detailed design stages of the project, these kinds will be further elaborated on. But the systems will be according to the applicable codes and standards, and that's, I think, the answer right now.

MS. GAGNON

Mr. Chair, I think my answer is to find out, if that is the design system that will be used, where is that water going to be coming from. What will be the impacts if the water needs to be withdrawn from Meadow Lake? And if it's more than what is planned as a withdrawal or -- if it is water being used -- and if

it's going to be sea water, where would those intake systems be, what would be the impacts of intaking that water from there, and if it is water, will there be chemicals added to it to, you know -- yes, I understand the design is not final yet, but if there are going to be environmental impacts related to that technology, I think it should be covered in the environmental assessment of the project.

THE CHAIR

Okay. Can I ask Keltic, are you able to provide information on the source of the water, for example, and what -- where would it run off to if it's -- once it's been discharged?

MR. DUNCAN

Well, again -- and I don't want to be -- try to be evasive on this, but again, the detailed design is going to try -- it will determine the exact source of that water, but there are a number of options. There could be fire fighting or fire water storage on site, either in tanks or ponds. The water from the cooling towers can be diverted and used in that situation. It could potentially come from the reservoir using the process water line that's used -- that is planned to be

implemented and used in the process. So there are a number of sources of water available. The exact source for the fire fighting that you describe is -- has yet to be designed, but there are a number of sources that would be available. Again, as well, there are storm water management collection infrastructure on site. These have not been detailed designed, but typical storm water management systems on these types of facilities would collect the storm water, would divert it, and would divert it to similar -- if it's in containment areas and there's a spill, these areas -- this material would be diverted to water treatment facilities to ensure that it's properly treated. But again, a lot of -- I think maybe the information on specific sources of the water have yet -- not yet been determined, but we do have a lot of options available which will be, I guess, assessed during the detailed design phase.

MS. GAGNON

Okay. So I'm curious, Mr. Chair, then what is the process for after the design has been determined, and if there are -- if it's deemed that there will be -- for example, if after the design, there will be

withdrawal of water from Isaac's Harbour, what is the environmental assessment process within the province for dealing with that if these things happen after the decision has been made?

THE CHAIR

Right. Okay. I think I'm probably able to address that. In terms of the provincial environment assessment process, once that process is concluded, and making a presumption if it results in an approval for the project, then there are subsequent phases which I think they have described, different regulatory and permitting processes that they do have to go through. Those subsequent processes don't involve environmental assessment in a technical sense. They don't involve any further application of the process we're going through right now. Once the assessment process concludes, that is the end of it. Any information that a regulator needs in order to issue permit would be acquired from the proponent at the appropriate point in the design and development of their project. So that would be the responsibility of that regulatory authority, whatever it may be for a particular permit.

MS. GAGNON

Okay. Thanks.

THE CHAIR

Anything else from the audience? I think perhaps a couple of the Panel Members may have had some questions. Do you want to address those now?

MR. BREEN

Could I just make a comment, Mr. Chairman?

THE CHAIR

Oh, okay. Yes, please.

MR. BREEN

My name is Rick Breen. My wife spoke a little earlier. I'd just first of all like to say that I agree with my wife, and most good husbands would, but -- I retired a couple of years ago after 37 years, I guess, with Royal Bank of Canada. I retired as a vice-president, worked in communities from Maritimes to the Prairies and -- there was 17 communities I think we lived in, so we knew the movers well. But the -- I think the thing that I learned and noticed from our travels to the various communities, the communities that were struggling -- and that could be on the Prairies, it could have been in Ontario, it could have been in Nova Scotia, it could have been P.E.I., any of those

provinces at least that I had knowledge of from working there -- the communities that were struggling -- and most rural communities, in particular in the Maritimes, are struggling -- and it's no different on the Prairies -- they are struggling -- and the communities that were receptive to some sort of industry, development, I can look back now and see them prospering. A number come to mind particularly in Ontario and the Prairies. Those that weren't as receptive -- and in my business, we had to look at what was our -- what was our exit strategy in communities like that. It's a business. You have to make a business decision. Well the strategy was -- and someone mentioned people don't like change and they don't want certain things to happen because of change, but there will be change -- and the exit strategy -- my point being the exist strategy is very simple. Wait a generation, there'd be nobody in the community, and the community will die. And I've seen that happen time after time in my travels. I was born and raised on the Eastern Shore. I grew up in Spanish Ship Bay. My father was an oil delivery person for Irving Oil for 30 some years. I'm familiar with the Goldboro area. And it pains me somewhat when I

come down to Nova Scotia. My children grew up in Ontario, so we spend a lot of time there as well. It may be good or bad, but in any event, what pains me, listening to my mother, just yesterday as a matter of fact, lamenting the fact that her church is dying because there's no new kids coming into the community, there's no new folks. The church is dying. I hear Warden Clark mention the fact school enrolments are down. I hear other folks saying that this store is closed. I drive down the Eastern Shore and I see for sale signs on houses. How are we going to arrest that? It's great to say we'll attract the perfect industry. There's no pollution, no impact whatsoever on the environment. But I'm here to tell you there is no such industry. There is a price to pay for prosperity, and I think from my experience, if you -- of course there always has to be oversight. But if you leave it to the rules, the regulation, the processes like this that are in place, and just try and proceed in a positive manner, and that these things will change a lot of lives for the better. And again, as I say, I have 37 years experience in 17 communities, and this community is no different than many others that I've been in that

have struggled. You have an opportunity to do something great here, and I would just encourage all the stakeholders to try and overlook some of the things that might impact them personally to look at the bigger picture, think of their children and their children's children. Thank you very much.

THE CHAIR

I think a couple of Panel Members did have some questions, and we'll get those in.

MS. HENNEBERRY

Penny Henneberry, Environmental Board. I wanted to revisit the exclusion zones around vessels, and there was a comment previously made that there are vessels already in busy harbours and there are no exclusion zones known around those vessels. There was a question written to the proponent asking the same question about exclusion zones, and the response was that there are current negotiations with Transport Canada Marine Safety, and the exclusion zone on the table is 250 metres from vessels. And it says, "while operating -- operating vessels." Could someone better define that? Is the 250 metres the total diameter or is it from each side of the vessel, which means it would be 500 metres

of -- a path of 500 metres coming into the harbour.  
And what is "operating vessel"? Is it while at sea or  
in the harbour or docked?

MR. SCHONK

The 250 metres is -- also 200 metres is mentioned, but  
let's say 250 metres -- is the radius, and you can see  
as being half the diameter around the manifold of a  
ship, of the LNG vessel, and that's around the middle  
of the ship. And that zone, that exclusion zone,  
safety zone is for LNG vessels during unloading. So  
when it is berthed at the jetty, then there is a safety  
zone of a radius of 250 metres around the manifold in  
which it is not allowed to have access during  
unloading. And that is a general rule within the LNG  
industry.

MR. CRANSTON

Ray Cranston, Environmental Assessment Board. We've  
heard some of the implications of compensation for  
fishing and how DFO has legislation and ideas in place  
for that. I was interested in some of the residents'  
concerns of pollution impacts and health impacts. What  
compensation program or plan or performance bond is  
offered to them? Although we know that accidents are

-- the risks are very low, but if they do happen, how  
-- in what way is the company responsible for what are  
they offering to ensure -- tell these people, you know,  
that if something does happen, they're in good hands?

MR. DUNCAN

Sorry, we're just taking a minute to confer here just  
to make sure we have the right information. I guess  
we're just trying to find the specific -- excuse me  
just a minute. Yeah, we just -- we can respond to some  
of those issues, but in a limited fashion with respect  
to the environmental issues that we've described in the  
EIA. We're just discussing some of the other issues  
associated with liability insurance and some of those  
issues. I'm not sure if that's the kind of direction  
you want to go or not with respect to liability of the  
company and the insurance associated with that. But to  
speak to a couple of the environmental issues  
associated with protection of health and those kind of  
standards, we did talk about potential effects on  
ground water and drinking water in the area. Certainly  
we would have extensive well surveying done prior to  
construction and operation of the facilities and we  
would -- and we'd be able to evaluate any potential

degradation in the water systems or the drinking water in the surrounding community associated with the project, either the construction or the operations. Obviously if there's any impact or any degradation in that water quality, that would have to be -- those -- that drinking water would have to be replaced by the proponent, either new wells or to provide a drinking water source. So that's specific on the ground water associated with, you know, potential health effects of impacting ground water. With respect to other conditions associated with, for example, air emissions, we would -- the project would adhere to any of those legislated requirements associated with emissions standards. And just as a note on those regulatory guidelines and levels, those levels are established by provincial and federal governments. These are -- these are emission standards that are health protective by nature. They've been established through an evolution of scientific determination of toxicological effects from these various parameters or chemicals in laboratories and then added with certain levels of conservatism, sometimes decreasing those values by an order of magnitude of two to determine these regulatory

standards. So in other words, these regulatory standards that are applied by federal and provincial agencies are health protective by nature, by themselves. So adherence to these standards, we feel would be health protective of any emissions from the project. If it's an issue of liability or other issues associated with accidental events, I think that's something we'd probably have to confer and get back to you perhaps as an undertaking (Undertaking) just to -- so we can make sure that we have the correct information that you're looking for. And just to clarify, is that the type of information you're looking for?

MR. CRANSTON

Yeah. I think that we heard quite clearly the approach you're taking with fishing, and whether it's adequate for everyone, I'm not -- not sure. But then there were questions about other resource-based industries. But I think we've received some information tonight and a number of letters of concern about health issues, whether it be pollution or air quality or accidents or -- you know, is there -- is there any industry standard or would you consider proposing a performance bond to

say, "We say this is a very safe operation and we stand behind that by saying..."

MR. DUNCAN

Sure.

MR. CRANSTON

"...we'll put a certain percentage of our investment in a fund to cover those potential problems"? If they never happen, that's great.

MR. DUNCAN

Sure. And just to expand on the response as well in terms of issues associated with ground water and air emissions, certainly there's going to be extensive monitoring. All these facilities have monitoring systems both around the site to protect workers, but also in the community and the surrounding areas to ensure that there are no environmental effects or impacts to air quality. So there would be extensive monitoring required and implemented as part of the project. The question I guess you're asking for us to respond to -- clearly tonight -- we can -- we can provide a more fulsome answer tomorrow as part of an undertaking, so we'll do that. It would probably -- there are a number of standards and industry practices

that would apply to this type of thing. Also corporate responsibility associated with these type of things. So we just want to make sure we get all the information that's relevant.

THE CHAIR

Okay. And just to clarify, in terms of process, when a proponent provides an undertaking to provide further information, we record that formally and we will ensure that they do follow up. They've indicated that perhaps they'll have it by tomorrow. If that's the case, that's fine. If not, we will, as I say, follow up with them to ensure that that information is received and does get on the record. Okay. Nothing else from the panel at this time. I'll provide any final opportunities. Anybody in the audience who wants to make a statement or ask a question? No? Final chance. Anyone? Okay. That being the case, we're concluded for this evening. We will be holding further sessions for the rest of the week in Antigonish, according to the schedule that's available at the back. And thank you very much.

(ADJOURNED TO WEDNESDAY, NOVEMBER 22, 2006 AT 1:30 P.M.)

## CERTIFICATE OF COURT REPORTERS

We, Gwen Smith-Dockrill, Sandra Adam, Ruth Bigio, Janine Seymour and Lorrie Boylen, Court Reporters, hereby certify that we have transcribed the foregoing and that it is a true and accurate transcript of the evidence given IN THE MATTER OF: NOVA SCOTIA ENVIRONMENTAL ASSESSMENT BOARD - KELITIC PETROCHEMICAL AND LIQUEFIELD NATURAL GAS FACILITY, taken by way of electronic recording pursuant to Section 15 of the Court Reporters Act.

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Gwen Smith-Dockrill, CCR  
Sandra Adam, CCR  
Ruth Bigio, CCR  
Janine Seymour, CCR  
Lorrie Boylen, CCR

Wednesday, November 22, 2006 at Halifax, Nova Scotia