

The Rabaska Project, one more ticking time bomb inside Lévis

The Rabaska project seems to me, to be a botched project that represents an unacceptable risk of catastrophe for the surrounding population.

This project seems botched, because I think it doesn't take sufficiently into account the exceptionally difficult conditions such enormous ships will encounter in the St Lawrence estuary and particularly during the last leg in the Chenal du Nord and on approach to the terminal.

The costs involved in the planification of emergency measures and the additional equipment and personnel they will command also seem greatly underestimated as well as the inconvenience for the population living around these installations.

It is highly likely that these installations will be imposing additional stresses to the surrounding populations because of the risk they represent and the high level of security they are likely to require in the future.

This project seems dangerous, because I think it doesn't take sufficiently into account the risk these installations of methane transboarding, storing and distributing will impose on the surrounding population.

The risk these installations represent is greatly amplified by the fact that they are located right beside a triple 735,000 Volts powerline at the place where it crosses the river and the approach to the terminal is located right under these powerlines.

A methane terminal, it's huge and vulnerable reservoirs and it's installations will considerably increase the cumulative risk of catastrophe for the environment and the surrounding population.

The cumulative risk for our region is already quite high because of the Ultramar refinery, it's installations and it's river terminal who regularly receives huge oil supertankers.

But this project seems particularly dangerous because these installations will be one more flower on the bouquet of strategic targets already located inside the limits of Lévis, likely to attract the attention of terrorist organisations.

Among the potential maritime risks associated with this project, the first one that comes to mind is a methane ship running aground in the Chenal du nord or in the vicinity of the terminal.

As far as I could verify, there is no installation of this type in the world located as deep in an estuary where such extreme conditions of tide and tide currents exist .

Consulting the marine maps of this sector of the river, we can verify that the eastern approach to Ile d'orleans, Le Chenal du nord, is a very narrow corridor, lined on each side with huge rocks which could seriously damage a methane ship if it was pushed on it by the combined force of the tide currents, the wind and the ice fields in the winter.

Because of their great exposed surfaces and their relatively light weight, these enormous ships appear more likely to be affected by the adverse conditions they will encounter in the estuary and particularly in the Chenal du nord.

Because it is very narrow and boarded with rocks, the Chenal du nord section will not allow for any diversion from the course a methane ship has to follow.

In this section, close to the population, a methane ship is likely to face severe conditions of cross wind, strong tide currents and ice fields in the Winter.

These conditions are also likely to affect the maneuvers at the terminal.

The immediate proximity of the triple 735,000 volts powerline at the strategic spot where it crosses the river and runs along the Rabaska installations is certainly a major element to take into account in the evaluation of the risk such installations will impose on the surrounding population.

It seems likely that a methane leak at the pier or inside the installations could result in an interruption of current on this powerline as a precautionary measure.

Reading through the environmental impact study published by Rabaska, I have noticed that the data in figure 2.9, pertaining to the maximum speed of tide currents at the terminal, appear erroneous.

The normal maximum speed of tide currents at specific locations on the river is indicated on the marine map by a black arrow pointing in the direction of the current, with a unit of speed in Knots.

According to the official marine map, the normal maximum speed of the tide currents at the terminal location and it's approach under the powerlines is respectively 4 and 4.5 Knots under normal circumstances. It is also added on the bottom of the map that "due to the complexity of tides and local atmospheric anomalies, the speed of currents and their real directions may greatly differ from the stated figures. Which means they can be much higher than 4.5 knots.

According to figure 2.9 of the environmental impact study, the maximum current speed at the terminal location is supposed to be 3 knots only.

Since the preceding figure, the 2.8, who gives the height of the tides, refers to the map, I am surprised that the reference for the data supplied for figure 2.9 is the Roche firm, when this data is readily available on the navigation map.

Since the speed of the tide currents is a primordial factor to consider in the evaluation of the feasibility and the security of such a project, I find it suspicious that an external firm was chosen to validate these figures who seem doubtful.

I have no doubt about the capacity of the Pilots of the St-Laurence to guide a ship safely on the river.

Although, to carry on their duty safely, the local conditions of navigation must not exceed the capacity of these huge ships to maintain the course that is set in this narrow and tricky section that is the Chenal du nord.

The margin of error of a methane ship in this section lined with rocks is close to none.

The fact that it was guided by an experienced Pilot didn't prevent the bulk carrier ship Alcor, in 1999 to run aground in the Chenal du nord and declare total loss.

It could neither prevent the cruise ship Norwegian sky to run aground at Ile Rouge close to Tadoussac while it was guided by two experienced Pilots.

As far as I know, no Pilot has ever guided a methane ship in this section of the river in bad conditions and no simulation that exist can replicate the behaviour of such a ship confronted to all the complex and changing conditions it is likely to encounter in this section close to the populations.

While I have no doubt about the competence of the Pilots of the St-Laurence, they can surely make mistakes too.

The grounding of a bulk carrier, a container ship or an oil supertanker, although it can result in an environmental mess, does not necessarily represent a danger to the populations.

A methane ship is a very different thing.

In spite of their huge dimensions, these ships are relatively light due to the low specific gravity of liquid methane and the great quantity of insulating materials surrounding the cryogenic reservoirs.

They are somewhat like big styrofoam blocks that will have to maintain their course precisely despite their great surface exposed to wind, the powerful and changing tide currents and the ice fields in the winter.

It seems evident that a methane leak, or even the fear of a leak resulting from the coming aground of a methane ship, could result in the evacuation of the populations downwind.

These evacuations could potentially be massive, depending on wind direction and the decisions will have to be taken without delay because of the speed a methane cloud can travel and diffuse with the wind.

It is easy to imagine a scenario in which a methane ship would run aground and break its hull on the rocks in the chenal du nord because of bad weather.

The North-East wind, which is the usual direction of bad weather wind, would naturally carry the methane cloud over Ile d'Orleans and in the direction of Quebec and Levis.

Along the way, it will naturally diffuse and mix with the air.

It could eventually be ignited by the first spark it will encounter while the cloud, or part of the cloud, is flammable.

The methane to air ratio that could be ignited is between 5 and 15%

It is also very important to take into account that a methane leak in transport would be undetectable by humans because methane has no smell.

It does not contain the Mercaptan who gives it its rotten eggs smell.

This product is added further, in the process of distribution.

Another scenario of maritime accident would be a methane ship breaking loose from the pier, pushed by the combined force of ice fields, the wind and the powerful tide currents.

The pier of the terminal and its approach under the powerlines are located in a section of the river the tide currents are particularly strong because of a strangling of the river resulting from the jetties of the pylons and the Ile d'Orleans itself.

Because of its strategic importance for our supply of electricity and the particularly high voltage that transit through these lines, I find it incredible that someone could seriously consider installing a methane terminal and enormous methane storing tanks right beside a 735,000 powerline at the place where it crosses the river to Ile d'Orleans and runs beside the land installations of Rabaska.

An argument that is certainly important to consider to evaluate the pertinence of such a project at this location is the possibility of a terrorist strike.

Whatever measures might be taken at the terminal or the land installations of Rabaska, it would be relatively easy, for determined terrorists, to break into the security perimeter of these installations and inflict serious damages.

In his book titled « Against all enemies », Richard Clarke, who was the U.S. official in charge of counter terrorism on September 11 2001, compares the destruction potential of a terrorist strike on a methane ship in Boston, to « an atomic bomb that could level downtown Boston »

The consequences of a terrorist strike on the Rabaska installations or a methane ship would be catastrophic for the surrounding population and would certainly have a high national and international impact.

A fast runabout stuffed with explosives to ram a methane ship at the pier or on approach to the terminal and a few rocket launcher shots on the reservoirs would result in a disaster.

It would also be relatively easy and cheap to seize control of the ferry boats or a few tugboats in the Bassin Louise and use them to ram a methane ship, a supertanker at the Ultramar pier and in season, one or two cruise ships at the Port of Quebec terminal.

These scenarios are not particularly imaginative since they replicate the tactics used on the Sept 11 2001 terrorist strikes in the U.S. and the attack on the USS Cole in 2000 in Yemen.

I cannot see how it would be possible to stop such an action once it is initiated because it would require a very fast intervention with equipments that we do not have.

The possibility of a terrorist strike would have been judged laughable at the time of the construction of the Ultramar refinery but in the turmoil we are going through these days and particularly because of our important military implication in Afghanistan, these possibilities need to be taken into account seriously.

Our political leaders as well as the national security agencies, Canadian and U.S., insist regularly to remind us we are on the list of potential targets for a terror strike.

The U.S. authorities even insist that we secure the access of our broccoli fields with costly security measures.

I think that those who have the responsibility of our security need to take seriously and not underestimate the danger these installations represent for the surrounding populations.

I am quite sure that the minimum security measures imposed in normal time and the cost to planify and assume them is greatly underestimated.

I cannot see how it would be possible to secure such installations, at this location, without taking important and disturbing security measures around the terminal on the ground and on the river, when there is a methane ship at the pier.

The access to the command section of the ferry boats, the ships on the river as well as the ships tied in the Port of Quebec will need to be secured effectively.

I wouldnt be surprised that even the pleasure boaters on the river will have to comply with increasing restrictions in their movement and additional controls because of these installations.

I think we can also expect additional and bothersome security measures if the general level of alert was to increase.

On that subject, the U.S. department of Homeland Security is actually revising the requirements for the storage and transport of dangerous cargo and materials.

I am sure a few « lizards are hidden in the closet » on this subject and that these installations will poison the life of the populations living around because of the additional stress and the bothersome and costly security measures they are likely to impose on them in the future.

What I find particularly worrying is the fact that so many important potential strategic targets are located in such a small perimeter inside Levis and that they are so easily accessible.

The bridges, the St Lawrence seaway at it's weak points, the Ultramar refinery and it's reservoirs, a supertanker at it's terminal, the future gas and oil pipelines, the triple 735,000 volts powerline where it crosses the river, the Rabaska installations and it's huge reservoirs, a methane ship en route or at the pier and the Ultratrain.

A terrorist operation that could hit and damage many of these target would be relatively easy to plan, cheap to realise and would certainly have a great impact.

Our risk capital is already spent quite a bit because of the Ultramar refinery.

The installations of this refinery, it's river terminal, it's enormous reservoirs and numerous chimneys are actually much bigger and important than what was originally planned.

For years, we have been hostages of these high risk installations located right in the middle of what is now the City of Levis.

Aside from the permanent risk they represent for Levis and Quebec City, we are breathing every day what comes out of their hundred of chimneys without complaining too much.

There is also it's Ultratrain, who carries hundreds of enormous tanks of chemicals and flammable products at the southern limits of Levis.

This dangerous cargo circulates on what appears to be a neglected railroad who passes right beside a newly implanted residential developpement.

Without being an expert, I was born and raised 10 meters from a railroad and I know very well what a normal rail look like.

I have never seen rails as difformed and affected by excessive charge as the rails of the Ultratrain railroad, particularly the final section between the Route Mgr Bourget and the refinery.

We must keep in mind that this train has derailed 8 times in the last ten years.

I think it would be irresponsible to add another potential risk of catastrophe in the immediate environnement of Quebec and Levis because there is already more than enough because of Ultramar, it'installations and it's river terminal.

I think we can also certainly expect the insurance companies to come up with increased premiums for commercial and residential policies.

They will be very easy for them to justify these increases by the increased cumulative risk for the region.

To conclude, I absolutely do not beleive that this project at that location is really good for the economy of Levis and the quality of life of it's population like the sponsors of Rabaska would like us to beleive.

The debates around this project have soured the ambience in an otherwise quiet city and I am sure that the realisation of this project will perpetuate and increase this bad ambience for decades.

I sincerely hope that the citizens of Levis and those of Quebec city, which are concerned as well by this project, will reject it strongly once they realise all the implications it will have on their future.

The Port of Quebec authorities would be wise to reconsider their unconditional support to this project if they feel the visit of cruise ships in Quebec City is important.

I certainly dont think a methane terminal will add to the attraction of Quebec City.

I am convinced that with a little imagination and in concert with the surrounding population, there are much better, durable and even more profitable ways to use this wonderfull piece of land.

By supporting this project, I beleive that the elected officials of the town council of Levis are taking a risk that could compromise, for many generations, the beauty of the place, the safety and the quality of life of the population and I hope these hearings will make them reconsider their decision.

Thank you for your attention

Jacques Jobin

Personnal info.

I was born in 1951, first of a family of nine, in a house built by my grandfather on the bank of the St Lawrence River In what was Lauzon at that time and is now part of the City of Levis.

I have built my first small boat at age 15 and 3 others after for recreational purposes. Since that time, I have never stopped navigating the river on different pleasure boats, power and sail.

I still live in that same section of Levis with my spouse of 33 years and we have raised a son there who is a graduate in mecanical engineering from Laval University and now pursuing a masters degree at École de technologie superieure in Montreal.

I am an art knife maker since 1987 and full time at it since 1991 which is the year I voluntarily quit my full time job for the Quebec Government as Body guard affected to the security of Quebec government Ministers.

I have been hired by the government in 1986, after having completed basic training at the Police institute in Nicolet followed by additional training in different aspects of my work and protocol.

I have also received additionnal regular trainings on other subjects related to my work during this period.

Even if I am absolutely not interested in working in that field any more, I like to keep informed on the subject.

I have a passion for science and technologies in general and I try to stay up to date in a wide range of fields.

I belong to no political or ideological group or organisation in particular and my only interest in diffusing this opinion is to continue to live at my place in peace and security.