



## **YOU WERE ASKING...**

### **Has Canexus considered a major earthquake in their design?**

A major earthquake scenario was included in the Quantitative Risk Assessment as per the VPA permit application:

"On average, an earthquake-related chlorine release from the plant's storage tank could occur with a frequency of  $3.4 \times 10^{-5}$  per year (one chance in 30,000 per year). This frequency is for the existing plant. For the potential future plant, the corresponding frequency is 60 percent, lower, again primarily due to tighter inventory management."

Note 1: this translates into a one in 75,000 per year occurrence.

"It is noted that smaller quantities in a storage tank result in lesser risk from earthquakes by reducing not only frequency (the tank supports will have to carry a lesser load, and therefore will be able to resist stronger earthquakes), but also consequences. It is also noted that earthquakes with magnitudes such as those used in the QRA would cause widespread damage but historically have not been experienced in Vancouver."

### **How will chlorine storage capacity change with the project?**

The current chlorine storage capacity is 300 tonnes.

After the Technology Conversion Project (TCP) is complete, chlorine storage capacity will be limited to approximately 60 tonnes through tighter inventory management. The 2006 Quantitative Risk Assessment results are based on 60 tonnes of chlorine storage.

### **How will the chlorine production change with the project?**

The current annual production capacity of the plant is approximately 154,000 tonnes of chlorine.

After completion of TCP, the annual production capacity will be approximately 197,000 tonnes however, a portion of the chlorine produced will not be stored or shipped as chlorine but will be internally consumed to make hydrochloric acid.

Canexus currently ships an average of 4.5 chlorine railcars per day. After TCP an average of 5.5 chlorine railcars will be shipped; an increase of less than one chlorine railcar per day. Each railcar contains approximately 81 tonnes of chlorine.

### **What is being done to reduce rail transportation risk?**

For each customer, railcar transportation risk is determined by the location of the customer and the rail system routing, both of which are fixed. What can be managed is the response to a HAZMAT situation in the unlikely event of an occurrence.

What Canexus has undertaken is extensive outreach to emergency responders in populated areas along the rail routing to ensure that they have the methods, equipment, knowledge, training, etc to deal with an incident. Railcar security is maintained at the Canexus site; at the customer site; and while in transit, the rail carriers maintain the security of the railcars and integrity of the rail system.

Canexus has a highly trained emergency response team, on call 24 hours per day, that is prepared for immediate dispatch to a HAZMAT situation. In addition to the Canexus emergency response team, we also have service agreements with major emergency response contractors throughout Canada and the United States.

**Is there a risk with increasing chlorine production?**

The project will reduce the risk to the community. Although increased production will marginally increase risk, this is more than offset by reduced storage volumes, improved scrubbing and other design features.

**What action will Canexus take if there is strong, vocal, opposition from the North Shore community or District council?**

Canexus values its excellent long-term relationship with the North Shore community. The plant has been a good neighbour at this site for almost fifty years. If, for any reason, we are unable to do the conversion to the new technology, the plant will continue to operate as is.

**Will this be an entirely new plant, an expansion, or a rebuild of the existing plant?**

The technology conversion project involves installing new membrane processing equipment. To make the conversion efficiently, we will require some new construction and will be eventually demolishing part of the old plant. In the end, since this is a more compact technology, the footprint of the plant will be smaller.

**Will the production of chlorine and caustic soda increase and by how much?**

Yes, the production of chlorine, caustic soda and other chemicals will increase, depending upon prevailing market demand for the products, by about 25 percent per year.

**Isn't there a District bylaw that prevents Canexus from increasing its production?**

No, but there is an agreement that limits the amount of chlorine that can be kept in the storage tank which is 300 tonnes. The conversion project will limit chlorine storage to 60 tonnes.

**Will this new plant be safer? Who inspects the plant for safety?**

The new plant will meet or exceed all safety requirements as does the existing plant. The plant is regularly audited under Responsible Care®. The plant is subject to WorkSafe BC® regulation which includes unplanned inspections at any time.

**Can you tell me about the Emergency Response plans in case of a spill? Is there a community alert system and how do I get on to that?**

We continue to work with the North Shore Emergency Management Office (NSEMO), North Vancouver Fire Department (NVFD) and the RCMP in the development of our emergency response plans. Yes, there is a community alert system which is funded by Canexus and managed by the NSEMO. In the event of a spill there is a rapid automated dialing system which will contact residents in the effected area with a recorded message on safety actions to be taken. The system can also be used in the event of a serious fire, criminal activity in a particular neighbourhood, missing child alert and more.

**What are your plans to evacuate us if there is a spill?**

Canexus does not have the authority to order an evacuation or any other actions relative to the surrounding community other than to activate a "shelter in place" notification phone message to the immediate area. Evacuation and any other public 'orders/assistance' would occur through the NVFD, RCMP and NSEMO. Canexus would act as a resource to supply pertinent information and expertise with regard to our products and plant status.

**What could Canexus do to further contract the MIACC guidelines and decrease the risk to the community? What would it cost? Are you planning to make those investments in community safety? If not, why not?**

Our goal is continuous improvement in process' and practice to enhance safety and reduce the risk contours. One of the benefits of the technology conversion project, which will cost about \$130 million, is that when completed the risk contours will be reduced.

**There hasn't been enough time for the public to comment on this project. Why didn't you tell us about this sooner?**

This is not "new news". We have been openly talking to the community about this project for some time now. It has been on the agenda of the Community Advisory Panel meetings since early 2005. Last May there was a District of North Vancouver planning meeting for the future of Maplewood when this project was discussed in a public forum. As well, we made a presentation to DNV Council on November 6 of this year. We are trying our best to make sure that the community has both information and an opportunity for feedback. For those who were not able to attend the Open House on November 23, we have created a project website (the project information is also on the Vancouver Port Authority website) and have set up a project information line for people to call. We are also making plant tours available.

**Why are you building a new plant here?**

We are converting from an older diaphragm processing method to a state-of-the-art membrane technology. There is no plan to build a completely new plant.

**Did you take into account a major earthquake or other catastrophe?**

We retained the services of one of the industry's leading risk assessment consultants to do an in-depth study to quantify the risk after the technology conversion is done. This study is posted on our website (on The Project page) and can be downloaded. In summary the report says that after the project is completed the risk contours will be drawn closer to the plant.

**How do I get on your list of approved vendors for the new project?**

Send us an e-mail (see the Contact Us page and click on Procurement) and we'll be in touch with the information we require.

**I thought you were closing the plant in a few years...**

That seems to be an urban myth that just won't go away. We plan to continue operating the plant for so long as there is market demand for our products.

**How will the plant be more environmentally friendly after the new technology is implemented?**

The membrane process requires less caustic concentration. We will be able to use the hydrogen produced instead of natural gas, thus reducing greenhouse gas emissions by over 80 percent. The new plant will use less electricity. With the overall plant modernization, solids discharge into the Burrard Inlet will be reduced.

The use of asbestos will be eliminated entirely from the manufacturing process. Overall, the plant will have a smaller footprint when the obsolete equipment and buildings are removed in the long run, since the new technology is more compact.

**Will there be a greater impact on our North Shore roads and level crossings?**

We commissioned UMA Engineering to do a traffic study for the project, which is available on our website [www.canexusproject.com](http://www.canexusproject.com). The study states that "vehicle trip generation of the site before and after the plant conversion is expected to be similar" and therefore any impact would be "nominal." Similarly, for the impact of rail traffic, "The delays experienced by vehicles at the level crossing are not expected to increase in the future as these rail movements will likely be made during off-peak hours."

**How can I get a copy of the Quantitative Risk Assessment (QRA)?**

It is available on our website [www.canexusproject.com](http://www.canexusproject.com).

**Can I book a plant tour?**

We welcome our neighbours to tour the plant. There are a number of ways you can do this. Call the Project Office at 604-924-2828 or send an email to [information@canexusproject.com](mailto:information@canexusproject.com).

**Why is your plant located here?**

Our plant is located here to better serve our local customers. Since 1957 we have been a major supplier of chemicals used by the pulp and paper industry in British Columbia. Our products are also used to purify drinking water, including the water supply for the Greater Vancouver Regional District, as well as for clean operation of swimming pools. We have a ready supply in B.C. of reasonably-priced electrical power—and we need access to a deep-sea port to receive shipments of the salt which is used in our manufacturing process.