Chemtrade North Vancouver Community Update

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Chemtrade's North Vancouver chlor-alkali facility is one of Canada's largest providers of liquid chlorine – accounting for 40 per cent of all liquid chlorine available in Canada. Regionally, this equates to over 70 per cent of the liquid chlorine available in BC and Alberta. Why is this important? A study conducted by Statistics Canada in 2015 found that 96 per cent of Canadian communities relied on chlorine to treat its municipal water supply, which equates to over 30.7 million Canadians.

In our current lease with the Vancouver Fraser Port Authority, there is a restriction that stops production of liquid chlorine at our site beyond mid-2030. Knowing the significant role that liquid chlorine plays is supporting safe drinking water for millions of Canadians, we need to start having conversations now to ensure that the decisions we make do not have unintended, long-term consequences.

To support this, we are starting a series of community meetings and will be engaging with local First Nations, special interest groups like community associations, and other identified stakeholders, as well as municipal, provincial, and federal elected officials. We will be launching a new website, AskChemtrade.ca, where you will find resources, information, be able to submit questions, as well as sign up for email updates.

What has changed since the lease was signed in 2007?

Today's North Vancouver chlor-alkali facility is not the same as the facility of 2007, when the last lease was signed. Since 2010, we have invested over $500 million in modernization projects that have improved both the safety and reliability of the plant. There has also been a significant change in how the facility is operated. Using liquid chlorine storage levels from the year 2000 as the benchmark, the amount of liquid chlorine stored on site has been reduced by over 94 per cent.

We have also seen regulations in the United States regarding the export of liquid chlorine become more stringent as they look to secure chlorine for domestic use. In addition, earlier this year, the US Environmental Protection Agency (EPA) finalized its previous ruling under the Toxic Substance Control Act, prohibiting the use of chrysotile asbestos. This ruling – which will come into effect in 2029 - will have a direct impact on eight facilities in the US who use asbestos diagrams in their chlorine production. These eight facilities represent about 30 per cent of the total supply available in North America (Canada, the US and Mexico).

Converting technologies is a significant cost (approximately $1 billion per facility), but also requires a lengthy facility shut down to convert the equipment. As these facilities shut down for conversion of their equipment, this will remove a significant amount of production from the US, making it is even more critical that Canada secures its own domestic supply.

Further to the modernization projects described above, North Vancouver facility has already been converted to modern membrane technology and will not be affected by the new EPA regulations.

Safety above all else

At all of our sites, including our North Vancouver facility, we have strict safety protocols in place that start with production and continue through to our products reaching our customers.

These safety protocols include comprehensive training for employees, rigorous safety protocols and procedures at all stages of production, facility safety drills, and emergency response planning. On a facility level, we are fully automated, and the system is continuously monitored by a state-of-the-art system that can automatically notify operators, shut down and isolate areas within the plant should something outside of the normal operating ranges be detected. This significantly reduces the chance of an accidental release or incident.

State of the art control room at our facility – monitoring all aspects of production

Currently, there are 72 sensors located throughout the facility site, including along the perimeter and in the railcar loading area. These sensors are capable of detecting chlorine as low as one part per million. Once the sensors are triggered, automated shut down processes to isolate the area are initiated, and site operators are notified.

In the case of a power outage, the facility is equipped with several safety mechanisms that are immediately deployed and do not require operator support. Valves are immediately closed once the facility loses power, securing the chlorine supply within the system.

In North Vancouver, we work closely and collaboratively with local first responders, including North Shore Emergency Management. This includes providing support for other emergency response initiatives.

Moving forward, we will continue to explore ways to further improve the plant, both for the safety of our employees and local community, and to be able to contribute to support the availability of safe drinking water for millions of people across Canada and the Western US.

Transporting our products

Chemtrade transports chlorine using specially designed rail cars which are custom designed for the transport of liquid chlorine. We lease and maintain our own fleet of rail cars, which we monitor and test to ensure full functionality and safety both prior to and after loading. Rail transport has been proven as the safest method to transport our product over land (source – AAR.com), and we are proud to share that since we have taken over operation of the facility in 2017, Chemtrade has not had a release of chlorine during transportation – either as the result of an accident or a non-accidental release (known as a NAR). Examples of a NAR would include leaks, splashes, or other releases from improperly secured or defective valves, fittings, tank shells or release through a safety relief device.

In fact, we are proud to share that in 2022, we were awarded the American Association of Railroads NAR Grand Slam Award, which is presented annually to companies that are exemplary shippers of

hazardous materials. An award winner must have been recognized by at least four Class I railroads and have had zero NARs involving their shipments the previous calendar year. In 2023, Chemtrade was awarded both the Canadian National Railway (CN) Platinum award for Zero Process Safety Related Incidents, and the Gold Level CN Safe Handling award for no non-accidental releases.

At our facility, as a member of Responsible Care®, the Chemistry Industry Association of Canada (CIAC), and The Chlorine Institute, we follow all safety association guidelines, while also being committed to reducing the environmental impact of our activities and improving the health & safety of our employees and the communities in which we operate.

We also follow all Canadian and US federal regulations and ensure that our employees receive training and follow all industry and railroad-specific procedures related to the handling, loading, and shipping of liquid chlorine. This includes following strict speed limits, thorough inspections, rail yard practices, and using identified shipping routes for materials deemed hazardous.
We maintain and operate a fleet of leased railcars, all of which have been specifically designed for the transport of our various products – like liquid chlorine and meeting all of the required regulatory specifications.

Looking at ways to further reduce potential risk to the community

We are working with an independent third-party company – BakerRisk – who have developed updated risk information for the facility using the latest technology and accepted parameters.
The risk survey work also considers the work already completed at the site – like the modernization projects completed since 2010 – and the changes to operations which have reduced the amount of liquid chlorine stored on site by over 94 per cent based on year 2000 storage levels.

While the risk mapping work is still underway, initial results are promising and show that with the completion of strategic improvement projects, like the construction of a containment shed with air scrubbers around the rail loading area, we could reduce risk to the community by reducing the risk to the area at or close to the facility's property lines.

Should we receive a long-term lease renewal, and are able to continue to produce liquid chlorine, our intention would be to significantly reduce any potential risk to the community by moving forward with the strategic improvements as suggested by the BakerRisk risk reduction modeling. This will require both initial engineering studies and a full estimation process, but as an organization, we are willing to begin this work as part of a long-term lease agreement and operating arrangements. We currently do not expect the cost to be an impediment to our desire to move forward. We are also looking at ways to make further operational changes – like reducing onsite storage of liquid chlorine by over 99.6 per cent from year 2000 levels.

Below: 2006 modelling reflecting our current operations

Below: possible updated risk, should full risk mitigation measures be implemented

As part of our continuous improvement philosophy, Chemtrade continues to explore ways to further improve the plant, both for the safety of our employees and local community, and to contribute to safe drinking water for millions of people across Canada and the Western US.

Frequently Asked Questions

Where is Chemtrade at in the lease renegotiation process?

A. While we can't share specifics of the lease negotiation process, we can share that we are in conversation with the Vancouver Fraser Port Authority. Our facility is located both on Port-owned land, as well as land that Chemtrade owns, which is located within the District of North Vancouver.

Overall, this is a complex process, with many different levels of required engagement – with the community, with local Nations, with special interest groups and municipal, provincial, and federal government elected officials and staff.

Our facility has been safely operating since 1958 and has a critical role to play in supporting access to clean drinking water for millions of Canadians. Our estimates show that our facility provides over 70 per cent of the liquid chlorine available in Western Canada, which equates to over 40 per cent of all available liquid chlorine in Canada. We also provide chlorine to almost 60 per cent of the Western United States. A survey conducted by Statistics Canada in 2015, found that 96 per cent of municipalities, representing over 30.7 million Canadians, relied on chlorine to treat their municipal water supply. If Chemtrade's BC plant were to close or stop producing liquid chlorine, the reliable supply of safe drinking water for B.C. and Western Canada would be at high risk due to liquid chlorine availability and capacity issues, as well as protectionist policies in the US.

Why are you starting engagement now, when the lease restriction on liquid chlorine doesn't go into effect for another six years (mid 2030)?

A. It might feel like 2030 is far away but given the complexities of the process and how important this is, we want to ensure that we are engaging early, and that there is the opportunity to fully engage with the community and other interested parties. Simply put, we feel that it would be a mistake to no longer have liquid chlorine produced in Western Canada.

Who can you contact for more information?

There are several ways to get in touch with us. The first is by visiting AskChenmtrade.ca, where you will be able to submit questions, find all of our information and request email updates.

The second is by reach out directly. You can reach our Director, Corporate Communications Amy Jonsson either by email (ajonsson@chemtradelogistics.com) or by phone 236-808-7851.

You can always find us online at https://www.facebook.com/chemtrade.