

Backgrounder
Comments to BC Environmental Assessment Office regarding rail traffic associated with the Vopak Project

- **We do not understand the BC Environmental Assessment Office decision to exclude rail transport of hazardous petroleum products from the Vopak Project EA.** The same arbitrary exclusion was used for the AltaGas EA in 2018 and, apparently, will be used for the two propane export projects undergoing regulatory review (Pembina Watson Island and Pacific Traverse Energy Kitimat).
 - These four projects will result in a total of 410 rail cars (four unit-trains) per day of hazardous Class 3 flammable products on the northern BC rail line. If the risk of spills and explosions from hazardous petroleum trains are not assessed and mitigated during an export project's EA, when will it be?
 - Why is Transport Canada not conducting an independent risk assessment of rail transport of hazardous products on the northern BC rail line prior to approving these projects? In the next section we discuss why we believe CN's current safety record on the northern BC line is only acceptable for non-hazardous cargo. If risk reduction strategies cannot be identified and implemented, we do not believe that it is safe to transport hazardous products in these quantities on this rail line.
- **CN's track record on the Northern BC rail line is hard to pin down because of company secrecy.** However, an independent 10-year study, Haggerstone 2013, found an average of 8.7 main track derailments or collisions per year; plus an average 26 collisions and derailments per year on sidings and in yards (<http://friendsofmoricebulkley.ca/saferail>).
 - The Transportation Safety Board Canada-wide 10-year summary found a 17% increase in accidents and casualties in 2019 from the previous 10 years, plus an increase in the *rate* of accidents (accidents per million main-track miles). Friends of Morice Bulkley asked the TSB if the same increase in rate of accidents was true for the northern BC rail line but have not received a reply.
 - Our search of newspaper archives from Prince George to Prince Rupert found six derailments and the death of a railway worker in the past three years. Derailments included 1) Jan. 19, 2018: twenty-seven car coal spill into Mission Creek, Hazeltons, a salmon spawning creek; 2) Oct. 12, 2018: five train cars carrying wood pellets derailed while being moved into Smithers rail yard; 3) July 18, 2019: a locomotive and three cars carrying wood pellets derailed between Terrace and Prince Rupert; 4) Jan. 7, 2020: a 34-car derailment of wood pellets on the edge of the Skeena River near Kitwanga; 5) Mar. 5, 2020: a derailment included seven cars carrying liquefied petroleum gas (LPG) that forced the evacuation of Giscome elementary school near Prince George, 6) May 12, 2020: nine coal cars derailed near Burns Lake. In addition, on June 15, 2020 there was an accidental death of a conductor on the job in Port Edward.
 - How long will it take until one of these derailments or collisions happens to be a unit train of hazardous petroleum products?
- **The northern BC rail line follows Canada's two largest salmon-producing rivers, the Fraser and Skeena.** The rail line bridges literally hundreds of salmon spawning streams.

- Products like gasoline and diesel are highly toxic to fish. Spill containment equipment like booms and skimmers, if deployed immediately, could be effective on lakes and side channels. However, the Fraser, Skeena and most tributaries are large rivers with turbulent, fast moving water in which conventional spill containment equipment is ineffective. Spills of these fuels would be exceedingly difficult to clean up once entering a river or the estuary and chronic long-term toxicity can result.
- The Vopak project proposes tank cars traveling regularly between Alberta and Prince Rupert and back empty on the northern BC rail line. Vopak should be required to lease only the sturdiest, safest TC-117 tank cars for transport of hazardous liquid products such as diesel and gasoline.
- Special speed limits for unit trains of hazardous petroleum liquids should be implemented within the Fraser and Skeena watersheds.
- **There is explosion, or BLEVE, and fire risk to our communities from refrigerated, pressurized tank cars carrying propane or liquefied petroleum gas (LPG).** Propane and LPG are considered synonyms in the Emergency Response Guidebook (ERG 2020) that guides emergency response throughout North America.
 - In the ten largest communities west of Prince George, the Fire Station is within the ERG 2020 fire evacuation zone. In some towns, like Smithers and Terrace, all emergency services are in the fire evacuation zone including Fire, Ambulance, Police, Municipal Offices and Hospitals. Municipalities are responsible for evacuation orders which may need to be made hours before the CN Hazardous Response Team stationed in Prince George arrives on-scene.
 - What safety training and resources will be offered to northern communities for evacuation planning and implementation? What staff training and other resources will be offered hospitals that may be subject to evacuation or shelter-in-place orders?
 - We have been told by our, mostly volunteer, municipal fire departments that they are not equipped for emergencies involving refrigerated liquid flammable gases. The ERG states firefighters would require positive pressure self-contained breathing apparatus and thermal protective clothing. Who will pay to upgrade the training and PPE for mostly volunteer municipal fire departments?
- **The Emergency Response Guidebook warns to eliminate all ignition sources if a spill or leak of propane is detected, since the heavier-than-air gas can spread through storm sewers, ventilation systems and confined areas (until a spark sets off a fire).** In Canada, propane sold for home use has an odorant added for safety. We have been told that propane/LPG by rail through northern BC for export will not be odorized.
 - How are we to detect if there is a propane tank car leak or spill in towns like Smithers where trains stop for several hours to refuel and take on new crews? We believe that gas detectors, or 'sniffers', should be deployed around rail yards. Alternatively, all shipments of propane/LPG for export by rail should require an odorant. This precaution would safeguard both communities and our railway workers.
- **Vopak and Canadian National Railway are multi-national companies with significant financial assets and will profit from the use of the northern BC rail line for petroleum export.** Risks to northern communities along the rail line include legal liability, property devaluation and, in the worst-case, a Lac Megantic-scale explosion resulting in great loss of life and property.

- Why should northern BC local governments assume sole legal and financial risk of a rail disaster involving hazardous petroleum products for export?