



**Parkland**  
FUEL CORPORATION

## Shipping at the Parkland Refinery

November 2018





# Shipping Methods

1. Marine

2. Rail

3. Truck



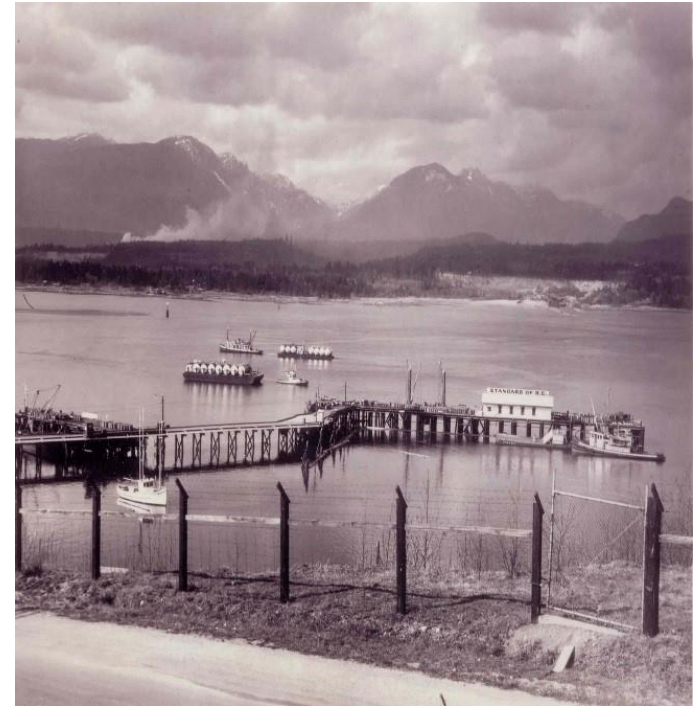


# MARINE



# Refinery Wharf

- Original wharf built in 1935 with the original refinery
- Referred to as “Stanovan Dock” as the name at that time was “Standard Oil of Vancouver”
- New state-of-the-art concrete wharf built in 1995 included a Marine Vapour Recovery Unit (MVRU), Marine Loading Arm
- Marine Vapour Recovery Unit captures vapours displaced from the compartments on the barge or ship
- Upgrades in 2010 included a fixed gangway and a sixth dolphin
- Product movements to the wharf occur via gravity flow or pump
- Product is certified for shipping before it is loaded
- Wharf has an inside berth and an outside berth

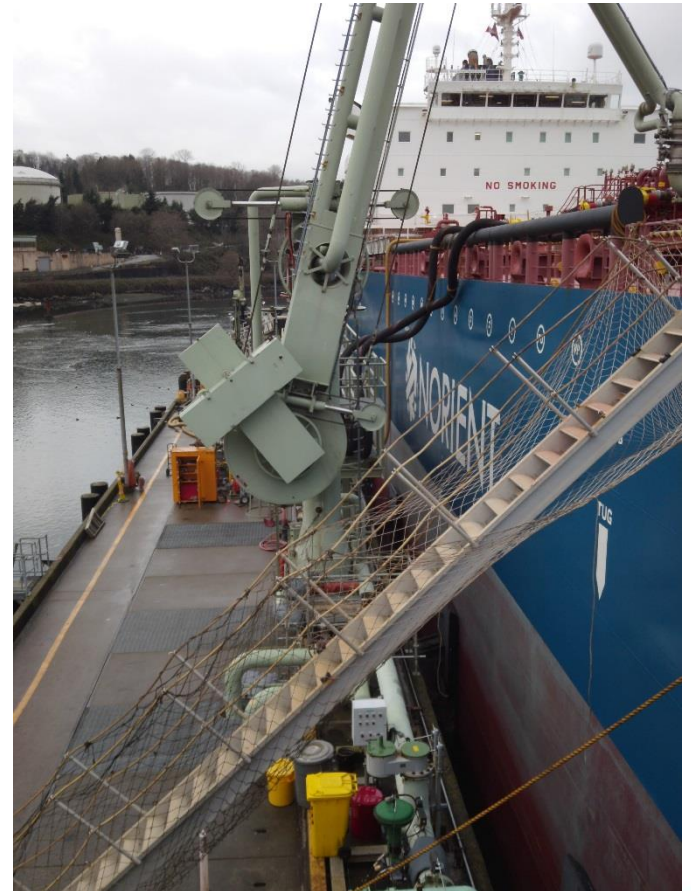






# Products

- Products shipped and received include a full slate of products
- Final destinations of our products depend on our shipping agreements
- Products are often shipped to Vancouver Island, Northern BC, Port Moody, Coal Harbour, Alaska, Washington or California
- Vessels generally pass through English Bay, through the First and Second Narrows





## Marine Vessels

- Our wharf accommodates both barges and tankers
- Vessel frequency varies; we generally see the equivalent of one vessel per day
- All vessels are double hulled and equipped with vapour recovery for use where required
- The inside berth can accommodate vessels up to approx. 25,000 barrels in size
- The outside berth is the most utilized and can accommodate vessel sizes up to a small Panamax-sized vessel depending on its deadweight tonnage

Vessel Type	Size (Barrels)
Barge	25,000 to 200,000
Medium Range (MR) Tanker	200,000 to 300,000
Panamax Tanker	300,000 to 500,000



# Marine Vessels con't



K-Sea's ATR DUBLIN SEA/DBL 185 on sea trials in Green Bay, Wisconsin, November 2009.  
MarineTraffic.com/Thomas from PhotoTechnics, Manitowish, WI



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# Marine Safety

- Independent third-party vetting process for all new vessels (SIRE report)
- Stringent safety procedures during vessel loading/offloading
- Both the inside and outside berths have booms as proactive safety measures
- Vessels that leave our facility are subject to Transport Canada safety regulations
- Western Canadian Marine Response Corporation (WCMRC): a Transport Canada certified Response Organization, with the mandate of ensuring there is a state of preparedness in place and to mitigate the impact of a marine oil spill
- Internally, we use Incident Command System (ICS), Incident Response Guide (IRG), and Oil Spill Contingency Plan
- Annual emergency response drills are conducted to ensure we are prepared in the unlikely event of an incident







# RAIL



# Rail Spurs

- Parkland's rail spurs are located within Area 1 of the refinery
- The spurs have been in place since the 1930s
- There are two racks used for loading and off-loading:
  - One is used for LPG and can accommodate four rail cars
  - The other was used for off-loading crude oil in the past and can accommodate 14 rail cars. This rack can be modified to accommodate different products.





# Products

- We currently receive more product than we ship out via rail
- Products shipped by rail include butane, isobutane and LPG. We are currently receiving butane and isobutane.
- Products come from across Canada and US

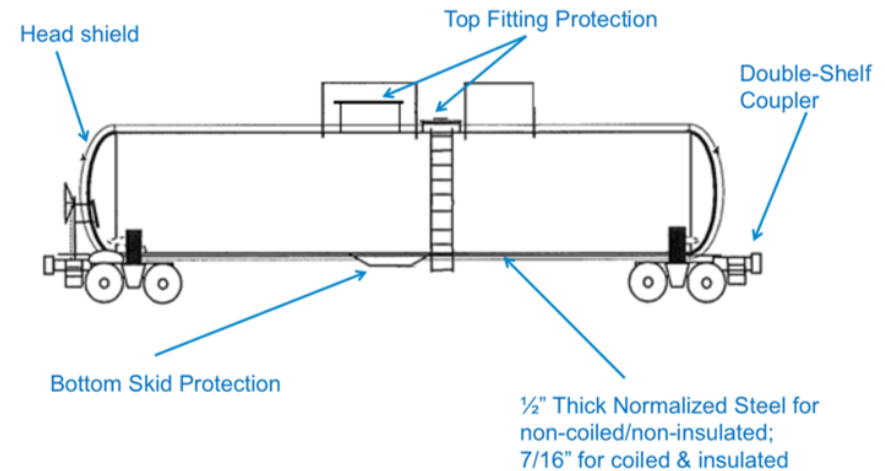


July 3, 2013



# Rail Cars

- Train frequency varies; we generally see the equivalent of four rail cars per day
- We are currently using tank rail cars that can accommodate approximately 750 bbls each
- We often receive LPG in rail cars owned by Elbow River Marketing (a division on Parkland), or in rail cars owned by other various shippers



Latest crude rail car design





# Rail Safety

- Both the rail cars and rail rack are inspected extensively for mechanical soundness prior to loading and off-loading
- The rail spur connects to the Canadian Pacific Railway main line, which is regulated by The Canadian Transportation Agency and Transport Canada





# TRUCK



# Fuel Truck Terminal

- Parkland's fuel truck terminal is located near Area 1 of the refinery (entrance on Eton Street)
- Terminal has been in operation since the 1950s
- Three finished product loading positions and one biofuels off-loading position
- Underground additive storage tanks within truck terminal. Product storage is within Area 1





# Products

- Gasoline and diesel are shipped through the truck terminal. Other products such as asphalt and propane are shipped via truck from Area 1 inside the refinery.
- Products are shipped throughout BC
- Biodiesel and ethanol are offloaded at the truck terminal and pumped to Area 1 for blending with diesel and gasoline







# Fuel Trucks

- Our terminal can accommodate trucks up to 140,000lbs (mandated in BC to eight axels)
- Truck frequency varies; approximately 80 trucks come through the facility daily
- Each truck holds enough fuel to fill more than 1,100 gas tanks





# Terminal Safety

- Tanker truck equipment is certified and annually inspected as per Transport Canada Regulations CSA B620
- Control valves ensure trucks are safely filled. An automation system allows drivers to select products and keep track of customers and volumes.
- Vapour Recovery Unit is used to capture the vapors displaced from truck fuel tanks
- Emergency Shut Downs and Fire Alarms are situated throughout the facility
- Water/Fire Foam deluge systems are connected to a sensor system that covers the load rack. There are also emergency phones, water monitors, eye wash stations and fire extinguishers
- Drivers safety program includes site orientation, Canadian Fuels Certification, training videos, observed training loads, current BCDL
- Contractor training includes: site orientation, trained on the Loss Prevention System, all maintenance work requires adherence to Safe Work Permits
- Other considerations:
  - Terminal designed to minimize need for trucks to back up
  - Terminal closes when possible to accommodate community needs (e.g. Halloween)



**Truck Overfill Protection**



**Bottom Load / Vapour Recovery**



## COMMUNITY CONTACT

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