

What is Pulp?

In our last issue of *Tides*, we introduced you to Squamish Terminals; our history, what we do and our economic impact on Squamish and beyond. Since many of you have asked, we are dedicating our cover story in this issue to describing the core product we handle: "Pulp".



Nearly all paper is made of pulp, either new or recycled. Today, majority of pulp production uses the parts of the tree that are left after wood has been used for other commercial purposes. Pulp is made from the cellulose fibers of wood chips. These fibers are extracted from the wood chips at pulp mills by a process of steaming, washing and pressing the chips to give us the usable pulp product.

Whether it is business, education, culture or any other human endeavor, we depend on paper for sharing and recording ideas

and information. Pulp is the main ingredient in products such as newsprint, magazines, printing and writing papers, paper towels, tissue papers, hospital gowns, draft and wrapping papers. By-products from the pulp process can even be used to thicken ketchup and ice cream. The pulp and paper industry also produces significant economic benefits and employment that is important for many communities (map below shows a selection of communities in British Columbia and Alberta with mills that produce pulp).

There are various grades of pulp and they are classified according to their production process. At Squamish Terminals we primarily export Kraft pulp and Thermo-Mechanical pulp (TMP). Kraft pulp is a high-grade or quality pulp and the most common chemical pulping process used today. TMP is referred to as high-yield pulp, because the manufacturing process produces more pulp per tree than traditional pulping methods. Our pulp customers employ advanced technology and manufacturing processes, while reducing environmental impact to produce pulp. For more information on Canada's forest products industry environmental stewardship visit www.fpac.ca.

Pulp can be either fluffy (TMP) or formed into thick sheets (Kraft). Both products are compacted into bales by presses at the mills for shipping efficiency. Our customers ship to Squamish Terminals in the form of wire-strapped units weighing between 1.2 and 2 metric tonnes per unit. At Squamish Terminals we receive, inventory, store, and load units of pulp primarily on to ocean vessels to destinations worldwide.



Map is not to scale.

Our business at a glance

Squamish Terminals (ST) is a deep-water, break-bulk terminal situated at the north end of the Howe Sound - just 32 nautical miles north of the Port of Vancouver. Since 1972 we have been efficiently handling cargo for loading to or from ocean vessels, barges and trucks.

With two berths, three warehouses, specialized handling equipment, an experienced work force and an intermodal transportation infrastructure (including rail, ocean and truck), ST efficiently imports and exports cargo to major markets worldwide.

ST is a wholly owned subsidiary of Grieg Star Shipping AS (based in Bergen, Norway).

Break-bulk cargo refers to goods that must be loaded individually, not in shipping containers or in bulk as with oil and grain.

Fact File

Pulp is the main ingredient in which of the following products?

- a. Magazines
- b. Paper Towels
- c. Hospital Gowns
- d. Cardboard
- e. All of the above



Answer: See back page.

By-products of pulp are also used in Ketchup, Ice Cream and Movie Film.



Next Page—Read about the overseas pulp transportation process.



Home port

Health & Safety at Squamish Terminals

Squamish Terminals has a Health and Safety Program in place to ensure worker safety and the safety of the work place. This program encompasses all aspects of safety including a workers right to a safe work environment, a respect for privacy and a work place free from harassment and discrimination. The employer and employees work together through a Site Safety Committee that works pro-actively in promoting safety initiatives, safety awareness and provides a conduit for employee suggestions and concerns.

Squamish Terminals like most industrial facilities has industrial certified First Aid Attendants on site when ship loading and warehousing operations are being carried out. We are very fortunate to have a group of very skilled and dedicated people who perform this function at our terminal.

Although we strive for zero accidents, when a situation occurs our First Aid Attendants have shown the skill, professionalism and calmness that makes everyone working at Squamish Terminals feel at ease knowing they are there.

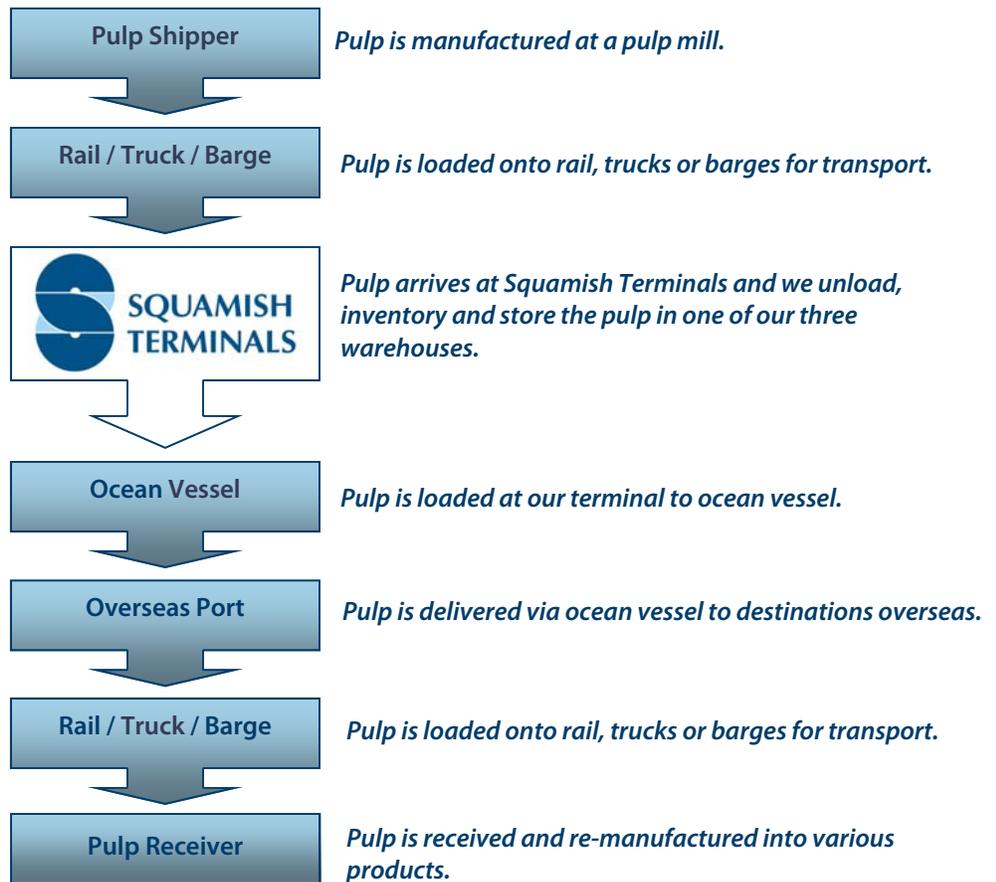
Industrial First Aid Attendants must upgrade and re-certify every two years so they are always current with the latest first aid procedures. **Our "hats off" to all our First Aid Attendants who take on this important responsibility and help the terminal reach its health and safety objectives.**



Squamish Terminals First Aid Team

The overseas pulp transportation process

There are many parts of the world that are not able to produce pulp and rely on imports from countries that are major pulp exporters such as Canada, USA, Russia, Sweden, Finland and Brazil. Squamish Terminals is one of the largest break-bulk pulp exporters in North America. Below we provide a basic flow chart of how pulp is transported from the pulp mill to final destination.





A member of the community

Squamish Estuary Management Committee



Squamish Terminals (ST) is proud to be a member of the **Squamish Estuary Management Committee (SEMC)** which is responsible for administering the **Squamish Estuary Management Plan (SEMP)**. As with other Estuary Management Plans in BC, SEMP was commissioned by the Department of Fisheries and the Ministry of Environment to protect the estuary's biological productivity while achieving its' economic potential. SEMP is somewhat unique in that a cooperative approach between the Province of British Columbia, BC Rail and the Squamish First Nation;

allowed transfer of lands within the estuary which became designated areas zoned for industrial/commercial development, transportation, wildlife management, planning and assessment. These zones are delineated within SEMP. This delineation removes confusion about what types of activities are allowed and in which areas.

Further, in order to regulate activities within SEMP, there is a formal project review process administered by the **Squamish Environmental Review Committee (SERC)**; which is comprised of regulatory authorities from the Department of Fisheries, the BC Ministry of Environment and the District of Squamish. This process ensures any projects proposed in the estuary are reviewed within the context of SEMP and current environmental legislation.

Established in 1999, with the finalization of SEMP, SEMC membership includes stakeholders from industry, local and provincial government, First Nations and the community; and represents a balance between government and non-government members and between economic and environmental issues. ST offers a unique perspective to SEMC; as the terminal operation boundaries interface with the Industrial/Commercial Zone, the Wildlife Management Area, and the Transportation Corridor.

According to Jennifer McGuire, Regional Manager, Ministry of Environment and Chair of SEMC. "The SEMC provides a forum for key stakeholders to discuss the issues affecting the SEMP area. Squamish Terminal's participation in SEMC enhances the Committee's balance and helps to foster further collaboration; both of which are basic tenets of the 1999 SEMP plan."

The Biathlon Bus

Squamish Terminals (ST) were proud supporters of the Biathlon Bus program, which sent 1,400 students (grades 4 to 9) to the Biathlon World Cup March 11th to 15th at Whistler Olympic Park. ST helped pay for the busses and winter clothes for students who were not in a position to purchase clothing necessary for a winter's day in the Callaghan.



Photo: by Jim Hegan

The hope of this program beyond giving children a once-in-a-lifetime opportunity was to inspire them to be active, to reach for their goals and dreams and to look after their bodies with sound nutrition and exercise. For many children, this was the one and only opportunity for them to witness a pre-Olympic test event with the athletes, coaches, course and action of the Olympic Games at no cost to them, their families and their schools.

Our very own Doug Hackett was part of a committee of volunteers that designed and organized the program on behalf of the Callaghan Valley Local Organizing Committee (CALOC).

Maiden voyage

When a deep-sea vessel visits Squamish Terminals to pick up cargo for the very first time we present the captain with a First Nations carving by local artist **Chester Joseph**.



Maiden Voyage CD Livorno

Chester Joseph was born on the Capilano reserve in North Vancouver into the "Bear Clan". He has lived in Squamish since the age of 7 and has been a carver for 38 years. He is a father of six children - three boys and three girls.

Chester is well known for carvings of bright red salmon eggs, eagles, bears, thunderbirds, salmon, woves, two-headed sea serpents and killer whales. He also carves totem poles, rattles, bowls, basks and talking sticks. Chester's artwork is sought after by collectors throughout the Pacific Northwest and many other countries of the world.

Last year alone we presented six of Chester's carvings to vessel captains who were at Squamish Terminals on their maiden voyage. It is gratifying to know that one of our local artists' work is on board vessels that travel the world.

Fact File



A ship crane can lift 64 metric tonnes of pulp at one time – this equates to the weight of about 40 standard automobiles.

Home port

Who: Lester (Les) Soman – Operations Superintendent

Hobby: Competitive Motor Sports Racing

Biggest Supporter: Wife Suzie

Les has been competitive motor sports racing since 1988. For seven years Les was involved in drag racing motorcycles. In 2002 Les attended Sports Car Club of B.C. road racing school and acquired his Confederation of Autosport Car Clubs senior racing license. Today he races cars in the Improved Production A Sedan Class (IPA), in which the engine remains basically stock with minor modifications to intake and exhaust.



Les's current car, the 1990 Ford Taurus SHO (Super High Output) 3.0 liter DOHC Yamaha V6, 5 speed trans 240 HP @ 3000 lbs is pictured in the photo above. Les built the car himself featuring suspension modifications, racing tires, shocks and brakes for maximum cornering speeds, full roll cage and all safety equipment to meet regulations.

Today Les primarily runs at Mission Raceways in Mission, British Columbia and Pacific Raceways in Washington State. Here are some of Les's impressive stats:

- Yamaha FZR1000 10.2 seconds @ 135 mph in the ¼ mile
- Ford Taurus approx. 135mph at Pacific Raceways
- IPA class lap record in 2008
- IPA class champion in 2008
- 5th in overall club championship in 2008



Our partner...Gateway Rail

Squamish Terminals and Gateway Rail have developed a working relationship in Squamish to facilitate the effective movement of break-bulk shipments from deep-sea vessels, to lay down yards and to final destinations. This connection creates efficiencies in the trucking of cargo to the lower mainland and the handling of import steel products destined for North American locations via truck or rail. Gateway Rail has vast experience in handling steel (e.g. large diameter pipe, rebar, h-beam and coil) and lumber products.

Gateway Rail has been operating in Squamish since 2005 and is a wholly owned subsidiary of TMS Transportation Management Services Ltd. (incorporated in 1992). Its facility operates out of the Industrial Park (site is pictured above) including more than 20 acres of outside storage and a 60,000 square feet warehouse for inside commodity handling. On site rail service is provided by CN Railway with 6,200 feet of rail trackage. This means that 9 (89 foot) railcars can be loaded in the warehouse at one time and Gateway Rail has the ability to load in excess of 24 rail cars per day.

Gateway Rail / TMS operate a modern fleet of tractors and trucks. All equipment has state-of-the-art electronic ignitions that automatically shut down engines after 3 minutes of non-use and surpass air quality and emission standards.

Squamish Terminals is proud to work together with partners such as Gateway Rail to produce significant economic benefits and employment that is so very important for Squamish and many other communities in Western Canada.

For more information on Gateway Rail visit www.gatewayrail.ca.



Contact Us

We are eager to hear your feedback about this edition of "Tides" as well as any suggestions for future issues. Please email us at tides@sqterminals.com. We also invite you to sign up for the e-newsletter version of "Tides" at www.squamishterminals.com.

Answer (to question on cover page) is e) All of the above.

