

CRUISE SHIPS DO FACE TOUGH ENVIRONMENTAL RULES

Cruise ships sailing in Canadian waters and calling on the Port of Victoria face tough environmental regulations.

And as well, as an industry, cruise lines have made international commitments to protect the environment and have developed their own industry guidelines.

The Canadian enviro rules closely follow International Maritime Organization (IMO) standards for pollution controls relating to oil, packaged goods, sewage, garbage and air emissions.

In November 2003, Transport Canada – the enforcement arm for the Canadian Government – issued Pollution Prevention Guidelines for the Operation of Cruise Ships under Canadian jurisdiction.

Not surprisingly, the guidelines were developed in consultation with the cruise ship industry, Fisheries & Oceans Canada, Environment Canada, and the Canadian Marine Advisory Council.

The Canadian guidelines are specific and include such things as products containing mercury, batteries, bilge and oily water residues, garbage, incinerator ash, wastewater reclamation, gray water, sewage, advanced wastewater treatment systems, air emissions, anti-fouling paints and ballast water.

Already, IMO regulations honoured by cruise lines all over the world prohibit vessels discharging sewage within three miles of the nearest land, unless they have in operation an approved treatment plant. And sensitive areas of the Canadian west coast have been designated as prohibited areas for sewage discharge.

More and more modern cruise ships are spending big dollars on advanced sewage treatment plants. Earlier this year, Victoria-based Hydroxyl Systems Inc. won a \$6.6 million contract to provide its CleanSea advanced wastewater systems to Royal Caribbean Cruises, a regular caller at Victoria.

The advanced treatment systems will be custom built and installed on the massive Project Genesis vessels, the first of which is now under construction and will be 40% larger than any passenger vessel afloat.

Many such advanced systems exceed the level of controls in land-based sewage systems, which is good news when it is considered that a typical cruise ship generates an estimated 210,000 gallons of sewage on a one-week voyage.

The cruise lines are also making other refinements. Royal Caribbean, for example, boasts that its newest vessels will be powered by GE gas and steam turbines which will reduce exhaust emissions by 80 to 98% as well as cutting noise and vibration levels.

The new vessels in the Radiance class will also have state-of-the-art waste management systems, including incinerators with emission controls and storage capacity to maximize opportunities for recycling and use of shoreside treatment facilities.

But, for cruise ships that don't meet those standards yet, Transport Canada guidelines and IMO regulations are the operator's bible.

The Canada Shipping Act (CSA), for example, prohibits the dumping of garbage into any marine environment within Canada's 200-nautical mile limit, including solid galley waste, food waste, paper, rags, plastics, glass, metal, bottles, crockery, junk or similar refuse.

During cruise season, the CSA requires vessels to use fuels that do not exceed 1.5% sulphur content. In fact, each year the cruise lines have to report the sulphur content and quantity of all fuel deliveries, both at Canadian and non-Canadian terminals.

And the CSA and associated standards strictly prohibit vessels from discharging oil, identified chemicals, and/or other noxious substances in Canadian waters.

There are strict rules for discharge of ballast water. Cruise ships from international waters need to have discharged their ballast at sea outside Canadian waters, or in specified alternate zones, or have treated it on board. Fail to comply on this one and Canada has the power to detain the vessel.

And there are even rules covering photo processing, including x-ray development fluid waste. These substances can be treated on board to reduce silver content or they will be treated as a hazardous waste when landed ashore. Dry cleaning waste fluids, print shop waste fluids, and laser cartridges from copy machines are also covered.

Gray water – the waste water from showers, sinks, galleys and laundry, which may contain detergents, cleaners, oil and grease, metals, pesticides, and medical waste – can only be discharged while the cruise ship is underway and doing at least six knots. However, the ship cannot be in port and must not be within four nautical miles of shore.

To help with enforcement, Transport Canada maintains a National Aerial Surveillance Program aimed at detecting any illegal discharges at sea and recently imposed a \$150,000 penalty on offenders for an illegal discharge of approximately 20 litres of an oily substance.

Cruise ships are a city afloat and can be fun. But, it's a serious business when it comes to environmental issues, and anything but a free ride for the cruise lines who, above all, prize their reputations as well as their customer satisfaction ratings.