

## **Small Vessel Wastewater Discharge Bill – Frequently Asked Questions**

### **What will the bill do?**

Alaska statutes require Commercial Passenger Vessels (CPV) to have a permit from the Alaska Department of Environmental Conservation (DEC) to discharge wastewater into waters of the state. The effluent limits in the permit are to be based on levels of treatment that can be achieved using an advanced wastewater treatment system (AWTS). An exemption in the statute was made for smaller CPVs in recognition of the problems they would have installing AWTS on board the smaller vessels. Alternative measures designed to protect Alaska waters and fish, primarily through the employment of Best Management Practices (BMP) and designation of no-discharge areas, were imposed on these vessels. The exemption language in the statute expired on January 1, 2016 leaving the small CPVs without a viable means to comply with the statutory permitting provisions. This bill would restore the statutory exemption along with DEC's authority to require the alternative requirements such as BMP for the smaller vessels. .

### **What is considered a small commercial passenger vessel, and how many operate in Alaska?**

Small CPVs have the capacity (lower berths) to carry 50 to 249 overnight passengers. There are currently 15 such vessels operating under DEC-approved BMP plans or that are scheduled to operate under a BMP plan (5 state ferries and 10 small commercial passenger vessels).

### **What does this mean for industry/ferries?**

Without the changes in the proposed bill, small CPVs and state ferries would have to apply for permit coverage to discharge wastewater within Alaska. They would be required to meet the Advanced Wastewater Treatment System (AWTS) requirements that large cruise ships currently meet. The Department would need to develop a new general permit for their discharges to state waters. The 2014 Large Cruise Ship Wastewater General Permit does not address small CPV discharges. A number of significant issues would likely arise, because most small cruise ships and the state ferries:

- Do not have the necessary equipment to meet AWTS-based permit requirements in statute
- Would incur high costs installing the equipment and retrofitting 40+ year old ships
- Lack available space and weight capacity to install the equipment, creating potential stability issues
- Do not have the option of foregoing permit coverage by travelling outside of the boundary of state waters to discharge – they don't have the space or means to hold wastewater or sewage sludge for disposal until they can sail three miles from shore.

### **What is the estimated cost to small CPVs to install the wastewater system to meet the discharge standards required under the large passenger vessel general permit?**

Installation Costs – The largest cost would likely be for the replacement or modification of the treatment systems (marine sanitation devices) currently on the CPVs to meet the advanced

wastewater treatment system performance-based requirement. This equipment upgrade would cost between \$250,000 and \$2.5 million depending on the vessel (many factors influence the cost – age of vessel, space available, volume of wastewater produced, etc.). Most vessels would have a hard time finding the space on board to install this equipment without removing revenue generating spaces.

Operational Costs – The cost to operate these systems is harder to predict. Depending on the volume processed and the type of equipment this could vary from as low as \$12,000/year for a small cruise ship up to \$100,000/year for each of the state ferries. The additional cost to the state ferries is due to year round operation and the larger number of passengers they carry.

Sampling Costs – There would also be additional costs associated with sampling of wastewater that they haven't been required to do in the past. The estimated cost of the additional sampling is between \$10,000 and \$15,000 per year for each vessel.

**Has the Department considered creating a Small Commercial Passenger Vessel Discharge General Permit? What is the estimated cost to DEC for staff time involved in developing a Small CPV General Permit?**

The Department has considered creating a general permit for small CPVs and the state ferries. It would likely take a year or two to develop and finalize a general permit. DEC costs associated with the development of a general permit for small CPVs have been estimated between \$190,000 and \$275,000. There could be additional time and costs associated with developing compliance schedules for vessels that could not meet the terms of the new permit without some additional transition time.

**What are the requirements for small commercial passenger vessels and state ferries under Best Management Plans?**

To discharge wastewater under the alternative terms and conditions provision of AS 46.03.462(c) and state regulation, a small commercial passenger vessel owner or operator must first secure DEC approval of a BMP plan.

An owner or operator who intends to operate a vessel under the alternative terms and conditions provision of AS 46.03.462(c) must submit a BMP plan on or before March 1 of each calendar year, except in a calendar year for which an approved plan is valid. DEC can approve a plan for up to five years.

The BMP plan must include:

- a) Documentation that the vessel cannot practicably comply with the standard terms and conditions, which includes one of the following:
  - 1) Satisfactory evidence (letter from a Naval architect, registered engineer or classification society) that demonstrates that installing advanced wastewater treatment systems would negatively affect the vessel's safety; or

- 2) The owner or operator's statement that provides estimated costs of installing new or modified wastewater treatment system and describes why it is not economically practicable for the owner or operator to install treatment systems that would otherwise bring the vessel into compliance with the standard terms and conditions in Alaska Statute 46.03.462(b) which spells out requirements of operators for all discharge permits. A written quote or letter from a system vendor must be attached to support the owner's or operator's statement.
- b) A description of operating practices (BMP) intended to
    - 1) Reduce volume of wastewater discharged,
    - 2) Improve the quality of the wastewater discharged,
    - 3) Minimize the risk to human health caused by exposure to the vessel's wastewater discharges, and
    - 4) Maximize the dispersion of wastewater into the receiving water.
  - c) A prohibition on the discharge of sewage, graywater and other wastewater within
    - 1) 100 meters horizontally of mean lower low water tidal datum of the tidally affected portion of a catalogued anadromous fish stream;
    - 2) between March 1 and June 15 of each calendar year, within waters that are of a depth of 20 meters vertically of mean lower low water tidal datum, and that are identified in the Department's set of maps entitled, Herring Spawning Areas of Alaska, dated November 2005 and adopted by reference; and
    - 3) areas designated under AS 16.20 as refuges, sanctuaries, and critical habitat areas under Alaska Statute 16.20.
  - d) A description of the crew or passenger training programs including training curricula, materials and schedules. Also, vessel scheduling, and other means that will be used to implement the best management practices; and
  - e) The recordkeeping documents, including logbooks, that will be used to demonstrate compliance with the BMP plan.

**Are the conditions that small commercial passenger vessels and state ferries operate under protective of human and environmental health?**

Yes. Small commercial passenger vessels and state ferries are required to treat sewage prior to discharge. To discharge treated sewage and other wastewater under the alternative terms and conditions provision of AS 46.03.462(c), a small commercial passenger ship owner or operator or state ferry must first secure DEC approval of a BMP. The intent behind the BMP is to require the owner or operator to look for ways to continually improve wastewater treatment performance. All small cruise ships and ferries with over 50 overnight passenger berths that discharge in Alaska waters are required to conduct sampling of wastewater effluent. DEC reviews the sample data and works with the small cruise ships and ferries as needed to develop corrective actions. Sampling and compliance assistance along with BMP review and approval has generated increased maintenance and improved operation of the marine sanitation devices. Restrictions on where the treated

wastewater may be discharged further assures protection of more sensitive environments and areas where people fish.

**What's the statutory change that is needed?**

Reinstate language at AS 46.03.462 (a) and new subsection (k), AS 46.03.463(b) and (c), and new subsection AS 46.03.465 (i) exempting small commercial passenger vessels and state ferries from the requirement to obtain permit coverage under the large passenger vessel wastewater general permit.

**Does this proposal set a lower standard for small commercial passenger vessels and state ferries as compared to other marine dischargers in Alaska?**

No. Small commercial passenger vessels and state ferries are required to treat sewage prior to discharge. Small commercial passenger vessel operators and the state ferries are required to conduct wastewater effluent sampling similar to other marine dischargers. To discharge wastewater under the alternative terms and conditions provision of AS 46.03.462(c), a small commercial passenger vessel owner or operator or state ferry must first secure DEC approval of a BMP. The intent behind the BMP is for the owner or operator to look for ways to continually improve upon the wastewater treatment performance. Sampling, monitoring and compliance assistance along with BMP review and approval has generated increased maintenance and improved operation of the marine sanitation devices.

In addition to AS 46.03.462(c), DEC has regulations that apply to small commercial passenger vessels and state ferries. These regulations address compliance with state marine water quality standards. 18 AAC 69.046 addresses the development of Best Management Practices Plans and places restrictions on where vessels can discharge.

Vessels other than passenger vessels are not required to have DEC-approved BMPs. They are required by federal law to have the same type of MSDs on board as the small passenger vessels.

**What amount of wastewater is being discharged by small passenger vessels and ferries?**

The volumes discharged by small commercial passenger vessels and state ferries are much smaller than that of municipal dischargers (city wastewater facilities) or large cruise ships. The Juneau Douglas Plant reported in their May 2016 discharge monitoring report an average flow of 1 million gallons a day with a maximum of 3.23 million gallons a day. Discharge volumes from both large and small vessels are variable as all ships have slightly different configurations, water conservation efforts and capacities. In 2015 the Norwegian Sun averaged a discharge of 102,675 gallons per day for three days. State ferries discharge as much as 21,000 gallons a day. In 2016 the Silver Discoverer provided data from August that indicated when they discharge to marine waters, they averaged between 5,548 gallons and 13,737 gallons of wastewater a day.

**What are the requirements for small commercial passenger vessels operating in the rest of the United States?**

The requirements are similar to those that apply to vessels operating in Alaska. Nationally, the U.S. Coast Guard requires that small commercial passenger vessels operate with sewage treatment equipment or holding tanks. Treatment systems must be approved by the Coast Guard. Alaska's program is unique in that through the use of BMPs operation and maintenance of sewage treatment equipment is monitored.

### **How do the Environmental Protection Agency (EPA) Vessel General Permit (VGP) and Alaska's small commercial passenger vessel program work together?**

The EPA VGP regulates discharges of different waste streams (such as greywater, greywater mixed with treated sewage, incidental discharges, etc.) and other activities that might impact the quality of the water receiving the discharge. The permit requires the installation of an approved MSD and applies throughout the United States. The EPA VGP has specific requirements for small cruise ships and ferries carrying more than 100 overnight passengers. In Alaska, small commercial passenger vessels and the state ferries must also comply with the requirements of Alaska's small commercial passenger vessel program. The Alaska small commercial passenger vessel program uses the Best Management Practices Plans in lieu of a permit for regulating discharges of sewage and greywater from a vessel into waters of the State of Alaska.

### **Why wasn't the small vessel exemption sunset provision addressed sooner?**

DEC had thought the sunset provisions for automatically repealing the BMP statutes in 2016 had been removed as part of the cruise ship legislation passed in 2013, but learned after the sunset date had passed that this was not the case. Amending the statutes to recreate the exemption requires legislation. In the interim, DEC is assuring Alaska waters are still protected and the smaller vessels may continue to operate by requiring them to continue to follow DEC-approved BMP plans and the earlier limitations on discharge locations.

### **Did small passenger vessels comply with the BMP and other DEC requirements during 2016?**

Small commercial passenger vessels and state ferries followed the BMP and other requirements in 2016.

### **Where can I find additional information?**

DEC Division of Water Cruise Ship Program website:  
[http://dec.alaska.gov/water/cruise\\_ships/index.htm](http://dec.alaska.gov/water/cruise_ships/index.htm)