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Re: Proposed Discharge Ban Amendment to the Cruise Ship MOU

Dear Ms. Jankowiak,

This letter is responsive to the 21-day comment period started on November 2, 2011 by the Washington State Department of Ecology (Ecology), Port of Seattle (Port) and North West & Canada Cruise Association (NWCCA) seeking proposed amendments to the Memorandum of Understanding (MOU) governing cruise ship discharges in Washington State waters and the Olympic Coast National Marine Sanctuary.¹

Last year Ecology, the Port and NWCCA agreed to establish a process to solicit public suggestions for possible additions or changes to the 2004 Memorandum of Understanding (MOU) every three years. Therefore, this comment period is particularly important in that it will be the last time in three years the public will have any say in this growing potential introduction of nutrients, toxics, pharmaceuticals and disease into the Sound. We support the governor's initiative to restore the health of the Puget Sound ecosystem – an initiative which will cost millions of dollars. We need all partners, including Ecology and the Port of Seattle to help protect this investment.

The Port of Seattle reported that the 2011 cruise season was more robust than expected. The port counted 885,949 cruise passengers among 196 ship calls in the late-April-through-early-October cruise season. According to Ecology, four of the vessels had

¹ http://www.ecy.wa.gov/programs/wq/wastewater/cruise_mou/index.html.

traditional Marine Sanitation Devices, eight had Advanced Wastewater Treatment Systems (AWTS), and two were of unknown capability. It is troubling that despite Ecology's ability to board these vessels, they were unable to even ascertain the type of treatment system on two of the 12 vessels home-ported in Seattle. We are concerned that at the end of the eight cruise seasons (since the inception of the MOU) that complete data including this basic information has not yet been provided by the cruise ship industry.

The amendment proposed below is not intended to be punitive. Rather, it affords the MOU parties the opportunity to demonstrate their collective leadership in contributing to the region's economy while minimizing environmental impacts.

The fact that none of the homeported vessels, capable of carrying more 5,000 passengers and crew typically producing over 200,000 gallons of sewage (black water) and up to 1 million gallons of gray water per week,² sought permission to discharge in State waters this past season, demonstrates their ability to comply with a discharge ban. However, that could change annually they can simply seek permission from Ecology at the beginning of each new cruise season. For example, it is not clear what Disney will do next season when they will begin homeporting ships in Seattle.

We believe that it is imperative that our public agencies and responsible industry leaders do their part to assure that as this industry continues to enjoy rapid expansion, it takes all reasonable efforts to minimize their impacts.

The following proposed MOU amendments are to be considered in priority order or in combination:

Proposed MOU Amendments:

- 1) Ban the discharge of gray water and black water in MOU waters.
- 2) Ban the continuous discharge of gray water and sewage (black water), limiting to only discharge while the ship is greater than 1 mile offshore and traveling at least 6 knots or more.
- 3) Require observers (those required by Alaskan law) who already board ships in Seattle for the Alaska ocean ranger program to report to Ecology on the vessels' sanitation operations while in MOU waters.

Rationale for Proposed Amendments:

Information from a 2008 U.S. EPA report³ indicates that regulated and unregulated discharges from cruise ships have the potential to harm the marine environment. For

² *Cruise Ship Pollution: Background, Laws and Regulations, and Key Issues* RL32450, Congressional Research Service, Claudia Copeland, updated Nov. 17, 2008, at CRS-2.

³ *Cruise Ship Discharge Assessment Report*, U.S. Environmental Protection Agency, Dec. 29, 2008, at 3-5 – 3-28, http://www.epa.gov/owow/oceans/cruise_ships/pdf/0812cruiseshipdischargeassess.pdf. (hereinafter *Cruise Ship Report*).

example, as demonstrated in greater detail below, the various pathogens and pollutants found in wastewater released into marine waters by cruise ships, even when treated by varying treatment systems, exceed state and federal standards, harm marine resources, and impair recreational opportunities.

The EPA report determined that standard on-board sewage treatment systems (known as Marine Sanitation Devices or MSDs) fail to adequately treat sewage before discharge,⁴ and that more advanced systems (known as Advanced Wastewater Treatment Systems or AWTS) need improvements to become sufficiently protective of the marine environment and public health.⁵ Testing has demonstrated that treated sewage from cruise ships may contain pathogens and pollutants that exceed federal performance and state water quality standards, thereby contributing to limits on recreational use of marine waters; contamination shellfish beds, finfish, and marine mammal as well as leading to eutrophication.⁶ Furthermore, raw graywater also contains harmful contaminants, with levels higher than treated sewage in some cases.⁷ Untreated cruise ship graywater concentrations have also exceeded federal Type II performance standards for fecal coliform and total suspended solids.⁸

The introduction of significant volumes of fecal coliform,⁹ ¹⁰ nutrients,¹¹ chlorine,¹² and metals¹³ through ship discharge is incompatible with the core elements of the of the Puget Sound Partnership's Action Agenda.

⁴ Cruise Ship Report, at 2-1, 2-9, 2-26, 2-27, 2-30, 2-31, 2-32, 2.36, 3-2, 3-3, 3-22, 3-25, 3-26, 3-27, and 3-29. EPA reported that treated effluent from conventional U.S. Coast Guard-approved Type II MSDs contain concentrations of bacteria, chlorine, nutrients, metals, and other pollutants that often far exceed federal ship effluent performance standards and EPA's 2006 National Recommended Water Quality Criteria (NRWQC). Effluent discharges from MSDs often also exceed secondary treatment standards for land-based domestic sewage.

⁵ *Id.* EPA found that AWTS, while more effectively treating sewage, do not adequately remove all potentially harmful contaminants. Although AWTS produce cleaner wastewater, treated effluent often did not meet NRWQC for metals, chlorine or nutrients such as ammonia – all of which can harm the marine environment. *See also* federal regulations for the Channel Islands National Marine Sanctuary (74 Fed. Reg. 3216 (Jan. 16, 2009)) and the Cordell Bank, Gulf of the Farallones, and Monterey Bay National Marine Sanctuaries (73 Fed. Reg. 70488 (Nov. 20, 2008) & 74 Fed. Reg. 12088 (March 23, 2009)).

⁶ *See also* U.S. Oceans Commission, Chapter 16, 241-242, available at http://oceancommission.gov/documents/full_color_rpt/16_chapter16.pdf (The Commission determined that waste stream discharges from ships “if not properly disposed of and treated can be a significant source of pathogens and nutrients with the potential to threaten human health and damage shellfish beds, coral reefs and other aquatic life,” and that “of particular concern are the cumulative environmental impacts caused when cruise ships repeatedly visit the same environmentally sensitive areas.”).

⁷ Cruise Ship Report, at Section 3.

⁸ *Id.*

⁹ Cruise Ship Report, at 2-9. Of the 92 samples taken from 21 cruise ships in Alaska during voluntary sampling in 2000 and 2001, only 43 percent met fecal coliform standards and only 32 percent met total suspended solids standards for ship effluent. Only one sample of 70 met both.

The Puget Sound Partnership's Action Agenda and ecosystem targets, first developed in 2008, defines what a healthy Puget Sound is, describes the current state of Puget Sound, prioritizes cleanup and improvement efforts, and highlights opportunities for federal, state, local, tribal and private resources to invest and coordinate. By statute, the near-term strategies and actions described in the Action Agenda must be updated every two years. This proposed amendment specifically supports the Action Agenda's item C8.1 "Establish no discharge zones for commercial and recreational vessels in all or parts of Puget Sound that have nutrient and/or pathogen problems." Addressing cruise ship discharges is compatible with this Action Item.

Due to the above-mentioned concerns on November 1st the Olympic Coast National Marine Sanctuary published a Final Rule updating its Management Plan and regulations for the first time since its creation 17 years ago. The only revision to the regulations "is a ban on cruise ship discharges within the sanctuary, a preventative measure to protect water quality off the Washington coast with negligible economic impact to the industry."¹⁴ The Olympic Coast Sanctuary joins the four National Marine Sanctuaries in California in adopting a vessel wastewater discharge ban.

Ecology states in their current public notice, "The MOU agreement supports the broader Puget Sound Initiative – a comprehensive effort by local, tribal, state and federal governments, business, agricultural and environmental interests, scientists, and the public to restore and protect the Sound, including the Strait of Juan de Fuca."

While it was disappointing not to see mention of support for the Puget Sound Partnership in the Port's Century Agenda, the success of the Partnership to recover the Sound by 2020 in light of increasing population pressures, requires that everyone does their part to be part of the solution. Growing concern about the impacts of ocean acidification on Pacific Northwest waters is further exacerbated by the addition of nutrient loading. The flexibility of mobile dischargers to hold their wastes until they are in less impaired waters makes for a win-win situation.

Thank you for your consideration of sponsoring and supporting these proposed amendments.

¹⁰ *Id.* at 2-35. For three pollutants – fecal coliform, total residual chlorine and ammonia – end-of-pipe discharge levels are high enough that they may not meet NRWQC after mixing when the vessel is at rest.

¹¹ *Id.* at 2-34. Average effluent concentrations of ammonia from traditional Type II MSDs and AWTs exceed all of the water body ammonia standards.

¹² *Id.* at 2-30. Both traditional Type II MSD and AWTs effluent concentrations exceed NRWQC for total residual chlorine at the end of the pipe.

¹³ *Id.* at 2-31. Several dissolved metals that are common components of ship piping – copper, nickel, and zinc – were found at levels approximately one to four times above NRWQC for aquatic life.

¹⁴ <http://olympiccoast.noaa.gov>.

If you have any questions, please contact Fred Felleman at (206) 595-3825 and felleman@comcast.net or Marcie Keever at (415) 544-0790 x 223 and mkeever@foe.org; Katelyn Kinn at (206) 297-7002 and katelyn@pugetsoundkeeper.org; and Heather Trim at htrim@pugetsound.org.

Sincerely,

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Marcie Keever, Oceans & Vessels Project Director
Friends of the Earth

Katelyn Kinn
Legal Affairs Coordinator
Puget Soundkeeper Alliance

Heather Trim
Director of Policy
People For Puget Sound

Cc: Port of Seattle Commission
Northwest & Canada Cruise Association