APPENDIX A

I. Comments pointed out that small ships have "minimal footprint in engineering spaces for installation of an advanced wastewater purification system (AWPS)," EPA responds only with respect to existing ships, not new ships or ships undergoing a major conversion

Comment submitted by: Majestic America Line and Windstar Cruises (Commerical Shipping), Document Control Number: EPA-HQ-OW-2008-0055-0308.1, Comment Excerpt Number: 3.

Comment: (2) add an additional vessel classification - following thorough analysis of the draft document, Majestic America Line would like to propose to the EPA to modify Section 5 "vessel class specific requirement" and add a vessel class that captures the unique discharge circumstances for US flagged riverboats, specifically where this pertains to grey water. The nature of these boats is such that they are limited in their geographical area of operation on rivers only as specified in the section "route permitted and conditions of operation" listed on the vessel's United States Coast Guard (USCG) certificate of inspection. As such, these river cruise vessels are not permitted to sail outside the 3nm boundary line simply because of the nature of their design and certification and likely will never be more then 1nm from shore due to their trade on US rivers. We suggest that the new vessel class specific requirement would read: "5.x. Riverboats/river cruise vessels -the requirements in part 5.x apply to vessel discharges from riverboats and river cruise vessels restricted by their certificate of inspection to operate and carry passengers on the rivers of the US only." (3) amend grey water discharge standards for riverboats – the proposed options in the permit for medium cruise ships leave riverboats few options for compliance. These vessels typically have limited to no grey water storage capability, minimal footprint in engineering spaces for installation of an advanced wastewater purification system (AWPS), and operate on an inland river system (often less than ½ mile from bank to bank). In addition, even if riverboats had sufficient grey water storage capabilities (which almost all don't), our preliminary research of several small river towns visited by Majestic America Line's vessels on the Columbia River and Mississippi River revealed these towns do not have facilities to receive grey water. EPA's proposal to apply the secondary treatment standards of 40 CFR 133.102 to the riverboats is a standard being carried over from the large cruise ship sector that have been required to meet these standards for continuous discharge operations in Alaska for years. These large cruise ships have the infrastructure to fully comply with the secondary treatment standards (as many already do); 1) ample grey water storage capacities; 2) engineering space footprints to install AWPS; 3) crew quarters to accommodate additional environmental staff to monitor, record and report the vessels environmental compliance; and 4) routes which allow the vessels the ability to discharge grey water, biofiltrate, and other approved effluents beyond the 1nm and 3 nm boundaries. Majestic america welcomes the opportunity to work with the EPA to further define the discharge standards specific to the operations of river cruise vessels and jointly develop best management practices to minimize the impact of grey water discharges (currently a necessity for the majestic vessels) during a phased implementation (see item (2) above). The focus of these best management practices should be on the unique design of riverboats and cruise vessels (previously mentioned) and the long off-season lay-up periods typical for these inland riverboats and cruise vessels that don't have the ability to reposition with

the change of seasons. [Emphasis added.]

Response: Based on this comment, the final VGP has been updated to reflect the characteristics of riverboats and other medium cruise ships that do not travel more than 1nm from shore. These updates were made to Part 5.2 of the permit. These updates include differentiating between existing vessels unable to voyage more than 1 nm from shore and vessels that are constructed on or after the issuance date of this permit and unable to travel more than 1 nm from shore. This distinction was made due to economic achievability of these requirements for existing vessels. For information, see Part 5.2.1.1.1 of the VGP and Section 7.2.1.3 of the Fact Sheet.

Comment submitted by: Cruise Lines International Association (CLIA) (Commercial Shipping), Document Control Number: EPA-HQ-OW-2008-0055-0337.1, Comment Excerpt Number: 52.

Comment: *** there are also some medium size cruise ships that operate inside 1 nm due to geographic restrictions, such as river ways that are less than 2 nm wide. These vessels are few in number and discharges are both minimal and are quickly dispersed due to current and ship speed acting in concert. EPA should apply the same principles of fate and transport to these ships as is done for calculating discharge rates for fixed facility NPDES permits and conclude that the added dimension of a moving ship to fate and transport calculations would generate dispersion rates far superior to similar calculations for fixed point discharges. Therefore, we propose that EPA adopt best management practices, in lieu of effluent standards, for medium size cruise ships, without sufficient graywater storage and without AWTS, and in areas without appropriate reception facilities, on voyages continuously within 1 nm, to discharge minimal graywater within 1 nm. *** [Emphasis added.]

Response: ***
Based on this comment, EPA has made revisions to Part 5.2 of the permit for medium cruise ships unable to voyage more than 1 nm from shore. Vessels unable to voyage 1 nm from shore must meet the requirements of part 5.2.1.1.1 if they are constructed on or after the issuance date of this permit. Note that the definition of "constructed on or after" also includes major conversions. The definitions were adapted from well known maritime treaties and regulatory regimes. ***

II. Suggestions to change the lower threshold of the medium cruise ship category to 250

A. Adopt cruise ship definitions used in Alaska

Comment submitted by: Lindblad Expeditions (Commercial Shipping), Document Control Number: EPA-HQ-OW-2008-0055-0372.1, Comment Excerpt Number: 10.

Comment: We strongly encourage EPA to eliminate the category of medium cruise ship and use the same thresholds that are used by the Alaska department of environmental conservation; 1 – 249 passengers = small passenger vessel and 250 passengers and above = large passenger vessel. These two categories have been in place for many years and should be adopted in this

process. The additional provisions for a third category would then not be necessary.

Response: EPA established the "medium cruise ship" and "large cruise ship" categories, rather than adopting the Alaska Department of Environmental Conservation categories, for the purposes of establishing technology-based limits on graywater discharge. As applied to medium sized cruise vessels, EPA's threshold is more inclusive than Alaska's threshold relating to the number of vessels containing fewer passengers, i.e., between 100 and 249 passengers. For information on these categories and how the definitions were established, see Section 7 of the Fact Sheet.

Comment submitted by: Four Seasons Marine Services (Passenger Vessels), Document Control Number: EPA-HQ-OW-2008-0055-0279.1, Comment Excerpt Number: 10.

Comment: There is reference to a definition of a "medium cruise vessel" being defined variously as one carrying more than 100 passengers, or 250 passengers or 500 passengers. We believe this should be set to the high end of that threshold, perhaps consistent with Alaska state law that dictates it is vessels carrying 400 or more passengers.

Response: EPA has retained the threshold of 100 passengers for the lower end threshold of what constitutes a medium cruise ship. The definition of medium cruise ship, as provided in Part 7 of the VGP, is "a passenger ship, used commercially for pleasure cruises, that provides overnight accommodations to passengers, and is authorized by the Coast Guard to carry 100-499 passengers." For more information see Part 5.2 of the VGP and Section 7.2 of the Fact Sheet.

Comment submitted by: Friends of the Earth (Environmental Group), Document Control Number: EPA-HQ-OW-2008-0055-0332.1, Comment Excerpt Number: 11.

Response: EPA solicited comment on the appropriateness of using a passenger cutoff of 100 people for medium cruise ships. EPA's basis for the size distinction, which was used to determine differential economic effects in the BAT analysis, is that fewer passengers and crew a cruise ship result in less volume of effluent generated and the lower revenue amounts available for installation of treatment and/or increased holding capacity. For information on the definition of "medium cruise ship" see Section 7.2 of the Fact Sheet.

B. Ferries are defined in Alaska the same as cruise ships. The EPA changed the definition for large ferries accordingly but did not change the definition of cruise ships accordingly.

Comment submitted by: Alaska Department of Environmental Conservation (ADEC), Division of Water (State Government), Document Control Number: EPA-HQ-OW-2008-0055-0324.1, Comment Excerpt Number: 19.

Comment: 7.1 large cruise ships (part 5.1) the state of Alaska has its own cruise ship environmental compliance program in place. As EPA recognized in this VGP, state programs and other permits can have different or additional requirements. ADEC will further discuss this in the 401 certification as well as address large ferries. EPA did state that no definition of large

ferries was found to apply to this permit. The state of Alaska definition for ferries regulated similar to large cruise ships is "vessels with 250 passenger berths for hire". Ferries with fewer than 250 passenger berths for hire are regulated as small vessels with applicable best management practices.

Response: Permit conditions received through the state certification process can be found in Part 6 of the Permit. The proposed VGP included a definition of "large ferry" which has been modified in part based on suggestions from this comment. EPA has included a definition of ferry in the final permit. This definition is based on a modified existing regulatory definition (see Part 7 of the permit). For additional information, please see Section 7.3 of the Fact Sheet, response to Comment EPA-HQ-OW2008-0055-0322.1, Excerpt 20 and response to Comment EPA-HQOW2008-0055-0321, Excerpt 11.

C. More categories of vessels should be defined, pointing out the different characteristics of and the problems the requirement impose on these small-size ships

Comment submitted by: V. Ships Leisure S.A.M. (Commercial Shipping), Document Control Number: EPA-HQ-OW-2008-0055-0409.1, Comment Excerpt Number: 3.

Comment: More categories of vessels are to be defined under the permit (like the river cruise operators who operate most of the time less than one mile from shore and do not have treatment equipment or storage facilities onboard)

Response: Based on this and other comments, medium cruise ships that are unable to operate more than 1nm from shore have been addressed in the final Permit. EPA would consider river cruise operators to be primarily medium cruise ships unable to operate more than 1 nm from shore. Please see, e.g., Part 5.2.1.1.1 of the Permit and Section 7.2.1.3 of the Fact Sheet for specific permit requirements and an explanation of how and why EPA has changed the permit since proposal to address comments. Additional comments related to medium cruise ships may be found in category VESS1B and other comment responses throughout this document.

III. Data relied on for graywater numeric effluent limits

A. The EPA relied on data provided from Alaska Department of Environmental Conservation and EPA studies, pertaining only to large cruise ships

Comment submitted by: Cruise Lines International Association (CLIA) (Commercial Shipping), Document Control Number: EPA-HQ-OW-2008-0055-0337.1, Comment Excerpt Number: 21.

Response: ***With respect to concern that there is a lack of "reasonable data," see e.g., responses to comments EPA-HQ-OW-2008-0055-0320.1, excerpts 5, 13, 20. With respect to information gathered from cruise ships, where such data was available, it was used. See e.g., VGP Fact Sheet Part 2.6 and Fact Sheet citations to, and discussion of, Alaska Department of Environmental Conservation and EPA studies and reports on cruise ships. ***

Comment submitted by: Cruise Lines International Association (CLIA) (Commercial Shipping), Document Control Number: EPA-HQ-OW-2008-0055-0337.1, Comment Excerpt Number: 65.

Response: ***
Please see Part 7.1.1.4 for the rationale of why EPA established graywater treatment standards. As discussed in the proposed fact sheet, the graywater treatment standards are based on the Title XIV standards that are published in Coast Guard regulations at 33 CFR 159.309. These Coast Guard regulations, applicable to large Cruise Ships in Alaska, directly incorporate the 40 CFR 133.102 limits, which include the 85% removal requirements. These standards apply to large cruise ships in Alaskan Waters. EPA has attempted to make vessel requirements throughout the permit as consistent as possible with other existing statutes and regulations when EPA determines those other limits are appropriate BAT limits. In this case, EPA determined that these effluent limits represented BAT for all large Cruise Ships as they were required of large cruise ships in Alaskan waters which discharge graywater. *** [Emphasis added.]

B. EPA incorrectly states that where data was not available to enable establishment of numeric limits, the VGP utilizes narrative flexible best management practices (BMPs) because there is no data to establish the graywater numeric effluent limits required for medium cruise ships of 100-249 passenger/crew capacity and the EPA applied them anyway

Comment submitted by: Cruise Lines International Association (CLIA) (Commercial Shipping), Document Control Number: EPA-HQ-OW-2008-0055-0337.1, Comment Excerpt Number: 7.

Comment: Because of the significant difference in the applicability of existing legal requirements between U.S., international and flag states and the fact that a number of cruise vessel discharges are already subject to legal requirements, sufficient time should be taken to identify, quantify and assess cruise vessel discharges in a deliberate and comprehensive manner and not apply the NPDES permit process to mobile incidental discharges without proper understanding of the operational capabilities available in the marketplace as well as the environmental goals for setting standards.

Response: With respect to the relationship of existing legal requirements and the VGP, see e.g., discussion of international and domestic standards in response to comment EPA-HQ-OW-2008-0055-0320.1, excerpt 2. With respect to assessment of discharges, as discussed in response to comment EPA-HQ-OW-2008-0055-0320.1, excerpt 20 and elsewhere in this response to comment document, where data was not available to enable establishment of numeric limits, the VGP utilizes narrative flexible BMPs. [Emphasis added.]

C. EPA acknowledges that there is a different BAT analysis for medium cruise ships but it did not apply a different BAT analysis for medium cruise ships built after the 2008 VGP issuance date or for medium cruise ships with 100-249 passenger/crew capacity

Commenter submitted by: Northwest Environmental Advocates, et al. (Environmental Group), Document Control Number: EPA-HQ-OW-2008-0055-0309.1, Comment Excerpt Number: 50.

Comment: *** We understand that these vessels [medium cruise ships] are less likely to have sufficient holding or treatment capacity but such limitations can be overcome with time. Therefore, EPA should include a compliance schedule so that medium-sized cruise ships have time to install sufficient holding capacity or to develop onshore treatment facilities rather than attempt to use a technology-based rationale to alter a water quality-based prohibition.

Response: Please note that all permit limits in Parts 5.1 and 5.2 of the permit are technology based limits. Medium cruise ships have different requirements than large cruise ships under EPA's BAT determination. Please see Part 7.2 of the Fact Sheet discussion for discussion of medium cruise ship limits. Please see response to comments EPA-HQ-OW-2008-0055-309.1, excerpts 3 and 18 for discussion about compliance schedules. [Emphasis added.]

Commenter Name: Captain John B. Ayer, Marine Operations Manager
Commenter Affiliation: American Cruise Lines
Commenter Type: Passenger Vessels
Document Control Number: EPA-HQ-OW-2008-0055-0429.1
Comment Excerpt Number: 1
Late Comment? No
Comment: The research done by the EPA regarding gray water discharge from medium cruise ships is completely wrong. The EPA has surmised that all or most of the medium cruise ships hold their gray water and then discharge it ashore. This could not be farther from the truth as i personally know of no medium cruise ships that have gray water storage capability. In this regard, the EPA's assertion that there would be no economic impact to the domestic passenger vessel industry is totally without merit. American cruise lines vessels do not hold gray water and the cost of reengineering them would be prohibitive. All deck drains and gray water piping would have to be re-routed to non-existent holding tanks, which if created would drastically and detrimentally change the subdivision and damage survival calculations for stability. As most of our itineraries operate the ships within 3 miles of shore, it is unrealistic to expect us to refrain from discharging gray water overboard. Additionally, most of the pier facilities that we use do not have the capability of pumping either black or gray water ashore. Until such time as all shore facilities are required to provide pump-out service we must have the ability to discharge gray water overboard. It is impossible for us to comply with our existing vessels. It is in the best interests of the cruise industry to preserve our natural resources. Clean water in our harbors, bays, sounds and coastal areas is vital to the health of our planet and our industry. If regulations are necessary they should address the use of detergents, soaps and other substances that would be in the gray water. Any implementation of new regulations must be for new ships. Existing vessels or vessels now under construction would, as practical matter, have to be grandfathered for the life of those vessels. If these regulations are implemented they can not be immediate but must be phased in gradually in order for the industry to plan, budget and facilitate the changes that would be required for new ships. The expense of making these changes will be enormous.

Response: EPA did not assume that most medium cruise ships would discharge ashore;

however, the Agency did assume that most medium cruise ships could either hold and discharge ashore or discharge further than 1 nm from shore. Based in part on this comment, EPA has added specific provisions for graywater management for existing medium cruise ships that do not travel more than 1nm from shore. See Part 5.2.1.1.1 of the VGP and Section 7.2.1.3 of the Fact Sheet for more information.