

2006 Commercial Passenger Vessels Discharge Status and Wastewater Treatment

| Vessel Operator | Vessel Name | Total Persons on Board ¹ | Number of Port Calls ² | Blackwater (BW) Treatment System Manufacturer | Graywater (GW) Treatment System Manufacturer | Approved for Discharge in Washington ³ ≥ 1nm from berth and ≥ 6 knots | | Approved for Discharge in Washington ³ continuously (at or within 1 nm of berth) | | Type of Treatment System ⁴ |
|------------------------|--------------------|-------------------------------------|-----------------------------------|---|--|---|-----|---|-----|--|
| | | | | | | BW | GW | BW | GW | |
| Celebrity Cruises | MERCURY | 2279 | 26 | Biopure/Rochem | Mixed with BW | NO | NO | NO | NO | AWTS: Rochem is a reverse osmosis ultrafiltration system |
| Celebrity Cruises | SUMMIT | 3409 | 1 | Hamann/Lazarus | None | NO | NO | NO | NO | Hamann/Lazarus is dilution and filtration system |
| Holland America | OOSTERDAM | 2648 | 21 | Rochem | Rochem | YES | YES | NO | NO | AWTS: Rochem is a reverse osmosis or ultrafiltration membrane bioreactor |
| Holland America | RYNDAM | 1860 | 1 | Zenon | Zenon | YES | YES | NO | NO | AWTS: Zenon is a biological reactor and ultrafiltration system |
| Holland America | STATENDAM | 1854 | 0 | Zenon | Zenon | YES | YES | NO | NO | AWTS: Zenon is a biological reactor and ultrafiltration system |
| Holland America | VEENDAM | 1854 | 2 | Zenon | Zenon | YES | YES | NO | NO | AWTS: Zenon is a biological reactor and ultrafiltration system |
| Holland America | VOLENDAM | 2080 | 1 | Zenon | Zenon | YES | YES | NO | NO | AWTS: Zenon is a biological reactor and ultrafiltration system |
| Holland America | WESTERDAM | 2648 | 21 | Rochem | Rochem | YES | YES | NO | NO | AWTS: Rochem is a reverse osmosis or ultrafiltration membrane bioreactor |
| Holland America | ZAANDAM | 2080 | 22 | Zenon | Zenon | YES | YES | NO | NO | AWTS: Zenon is a biological reactor and ultrafiltration system |
| Norwegian Cruise Lines | NORWEGIAN STAR | 3340 | 21 | Scanship | Mixed with BW | YES | YES | YES | YES | AWTS: Scanship is a biological reactor flocculation/flotation & UV disinfection system |
| Norwegian Cruise Lines | NORWEGIAN SUN | 2952 | 20 | Scanship | Mixed with BW | YES | YES | YES | YES | AWTS: Scanship is a biological reactor flocculation/flotation & UV disinfection system |
| Princess Cruise Line | DAWN PRINCESS | 2850 | 20 | Hamworthy Bioreactor | Mixed with BW (except galley/laundry - no treatment) | YES | YES | YES | YES | AWTS: Hamworthy is a biological reactor and ultrafiltration system |
| Princess Cruise Line | SUN PRINCESS | 2820 | 20 | Hamworthy Bioreactor | Mixed with BW (except galley/laundry - no treatment) | YES | YES | YES | YES | AWTS: Hamworthy is a biological reactor and ultrafiltration system |
| Royal Caribbean | VISION OF THE SEAS | 3200 | 17 | Unknown | Unknown | NO | NO | NO | NO | hydroxyl is an activated oxidation process |

¹Numbers come from the Alaska Discharge Status Report and information gathered from the cruise industry. Most values include both passengers and crew. Actual number of passenger aboard varies dependent upon sales.

²Number of Port calls comes for Port of Seattle Cruise Schedule for 2006

³Washington waters refers to the "waters subject to this Memorandum of Understanding (MOU)" as defined in the MOU

⁴Information on the types of treatment systems comes from the cruise industry themselves