

2007 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	
NorthWest CruiseShip Association Vessels										
Celebrity Cruises	MERCURY	2779	16	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	AMSTERDAM	2027	20	Unknown	Unknown	NO	NO	NO	NO	Unknown
Holland America	NOORDAM	2718	21	Rochem Bio-filtration	Rochem LPRO	YES	YES	NO	NO	Unknown
Holland America	OOSTERDAM	2648	21	Rochem Bio-filtration	Rochem LPRO	NO	NO	NO	NO	AWTS: Rochem is a reverse osmosis or ultrafiltration system
Holland America	ZAANDAM	2107	1	Zenon	Mixed with BW	NO	NO	NO	NO	AWTS: Zenon is a biological reactor and ultrafiltration system
Holland America	ZUIDERDAM	2648	1	Rochem Bio-filtration	Rochem LPRO	NO	NO	NO	NO	AWTS: Rochem is a reverse osmosis or ultrafiltration system
Norwegian Cruise Lines	NORWEGIAN PEARL	4230	20	Scanship	Mixed with BW	YES	YES	YES	YES	AWTS: Scanship is a biological reactor flocculation/flotation & UV disinfection system
Norwegian Cruise Lines	NORWEGIAN SUN ⁶	2952	0	Scanship	Mixed with BW	YES	YES	YES	YES	AWTS: Scanship is a biological reactor flocculation/flotation & UV disinfection system
Norwegian Cruise Lines	NORWEGIAN STAR	4000	22	Scanship	Mixed with BW	YES	YES	YES	YES	AWTS: Scanship is a biological reactor flocculation/flotation & UV disinfection system
Princess Cruise Line	GOLDEN PRINCESS	3660	21	Hamworthy Bioreactor	Accomodations mixed with BW	YES	YES	YES	YES	AWTS: Hamworthy is a biological reactor and ultrafiltration system
Princess Cruise Line	SUN PRINCESS	2820	21	Hamworthy Bioreactor	Accomodations mixed with BW	YES	YES	YES	YES	AWTS: Hamworthy is a biological reactor and ultrafiltration system
Royal Caribbean	RADIENCE OF THE SEAS	3360	1	Unknown	Unknown	NO	NO	NO	NO	Unknown
Royal Caribbean	SERENADE OF THE SEAS	2950	2	Scanship	Mixed with BW	NO	NO	NO	NO	AWTS: Scanship is a biological reactor flocculation/flotation & UV disinfection system
Royal Caribbean	VISION OF THE SEAS	3200	19	Hydroxyl	Unknown	NO	NO	NO	NO	hydroxyl is an activated oxidation process
NON NorthWest CruiseShip Association Vessels⁵										
Regent Cruises	SEVEN SEAS MARINER	1200	1	Hamworthy Bioreactor	Mixed with BW	NO	NO	NO	NO	AWTS: Hamworthy is a biological reactor and ultrafiltration system
American West	EMPRESS OF THE NORTH	320	2	Orca	Chlorine	NO	NO	NO	NO	macerator Chlorinating System

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 2007

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 Alaska Discharge Status Report and information from the cruise industry.

⁵Non Northwest CruiseShip Association vessels are not party to the MOU and the requirements of the MOU

*The NORWEGIAN SUN vessel does not have a Port call in WA for 2007, but will be moving through WA waters