

2013 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		Type of Treatment System ⁴
						BW	GW	BW	GW	
North West & Canada Cruise Association Vessels										
Carnival Cruise Lines	<i>CARNIVAL MIRACLE</i>	3054	19	Traditional MSD - Triton	None	NO	NO	NO	NO	Traditional MSD - FORMAT is an aeration, settling and chlorination system.
Celebrity Cruises	<i>CENTURY</i>	2657	1	unknown ⁶	unknown	NO	NO	NO	NO	unknown
Celebrity Cruises	<i>MILLENNIUM</i>	3137	1	unknown	unknown	NO	NO	NO	NO	unknown
Celebrity Cruises	<i>CELEBRITY SOLSTICE</i>	4350	19	unknown	unknown	NO	NO	NO	NO	unknown
Crystal Cruises	<i>CRYSTAL SYMPHONY</i>	1467	1	unknown	unknown	NO	NO	NO	NO	unknown
Holland America	<i>AMSTERDAM</i>	2027	1	Traditional MSD	None	NO	NO	NO	NO	Traditional MSD - aeration, settling, chlorination
Holland America	<i>OOSTERDAM</i>	2716	22	Rochem Bio-filtration	None	NO	NO	NO	NO	AWTS: Rochem is a reverse osmosis or ultrafiltration system.
Holland America	<i>WESTERDAM</i>	2716	21	Rochem Bio-filtration	none	NO	NO	NO	NO	AWTS: Rochem is a reverse osmosis or ultrafiltration system.
Norwegian Cruise Lines	<i>NORWEGIAN JEWEL</i>	3476	18	Scanship	Mixed with BW	NO	NO	NO	NO	AWTS: Scanship is a biological reactor flocculation/flotation & UV disinfection system
Norwegian Cruise Lines	<i>NORWEGIAN PEARL</i>	3494	19	Scanship	Mixed with BW	NO	NO	NO	NO	AWTS: Scanship is a biological reactor flocculation/flotation & UV disinfection system
Oceania Cruises	<i>REGATTA</i>	1210	7	Triton	Triton (some)	NO	NO	NO	NO	AWTS: Triton Water MBR is a biological reactor and ultrafiltration system.
Princess Cruise Line	<i>GOLDEN PRINCESS</i>	3696	20	Hamworthy Bioreactor	Accommodations mixed with BW	NO	NO	NO	NO	AWTS: Hamworthy is a biological reactor and ultrafiltration system
Princess Cruise Line	<i>SAPPHIRE PRINCESS</i>	3770	2	Hamworthy Bioreactor	Accommodations mixed with BW	NO	NO	NO	NO	AWTS: Hamworthy is a biological reactor and ultrafiltration system
Princess Cruise Line	<i>STAR PRINCESS</i>	3740	21	Hamworthy Bioreactor	Accommodations mixed with BW	NO	NO	NO	NO	AWTS: Hamworthy is a biological reactor and ultrafiltration system
Royal Caribbean	<i>RHAPSODY OF THE SEAS</i>	3200	14	NAVALIS	Mixed with BW	NO	NO	NO	NO	NAVALIS AWTS is a biological, ultrafiltration with oxidation system
NON North West & Canada Cruise Association Vessels⁵										
NONE										

Total Calls: 186

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 2013

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 updated to the best of our knowledge.

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

⁶Unknown refers to the fact that the type of treatment system has not been confirmed during an inspection.