

2015 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 LEGEND</i>	3125	16	Triton-Format	None	NO	NO	NO	NO	Traditional MSD - Triton-Format - aeration, settling, chlorination	
Celebrity Cruises	<i>CELEBRITY SOLSTICE</i>	4350	19	Kruger/Wabaag	Mixed with BW	NO	NO	NO	NO	AWTS: Kruger/Wabag is a biological reactor and ultrafiltration system	
Crystal Cruises	<i>CRYSTAL SYMPHONY</i>	1550	1	Triton-Format	None	NO	NO	NO	NO	Traditional MSD - Triton-Format - aeration, settling, chlorination	
Holland America	<i>AMSTERDAM</i>	2027	18	Traditional MSD	None	NO	NO	NO	NO	Traditional MSD - aeration, settling, chlorination	
Holland America	<i>NOORDAM</i>	2716	1	Unknown	Unknown	NO	NO	NO	NO	Unknown	
Holland America	<i>STATENDAM</i>	1815	10	Zenon	Mixed with BW	NO	NO	NO	NO	AWTS: Zenon is a biological reactor and ultrafiltration system	
Holland America	<i>VOLENDAM</i>	2079	1	Zenon	Mixed with BW	NO	NO	NO	NO	AWTS: Zenon is a biological reactor and ultrafiltration system	
Holland America	<i>WESTERDAM</i>	2648	22	Rochem Bio-filtration	none	NO	NO	NO	NO	AWTS: Rochem is a reverse osmosis or ultrafiltration system.	
Norwegian Cruise Lines	<i>NORWEGIAN JEWEL</i>	3467	20	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	20	Scanship	Mixed with BW	NO	NO	NO	NO	AWTS: Scanship is a biological reactor flocculation/flotation & UV disinfection system	
Oceania	<i>REGATTA</i>	1150	8	Triton	Triton (some)	NO	NO	NO	NO	AWTS: Triton Water MBR is a biological reactor and ultrafiltration system	
Princess Cruise Line	<i>CORAL PRINCESS</i>	2870	1	Hamworthy Bioreactor	Accommodations mixed with BW	NO	NO	NO	NO	AWTS: Hamworthy is a biological reactor and ultrafiltration system	
Princess Cruise Line	<i>CROWN PRINCESS</i>	4270	19	Hamworthy Bioreactor	Accommodations mixed with BW	NO	NO	NO	NO	AWTS: Hamworthy is a biological reactor and ultrafiltration system	
Princess Cruise Line	<i>RUBY PRINCESS</i>	4285	20	Hamworthy Bioreactor	Accommodations mixed with BW	NO	NO	NO	NO	AWTS: Hamworthy is a biological reactor and ultrafiltration system	
Royal Caribbean	<i>JEWEL OF THE SEAS</i>	3343	16	Unknown	Unknown	NO	NO	NO	NO	Unknown	
NON North West & Canada Cruise Association Vessels⁵											
NONE											
			Total Calls:	192							

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 2015

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 Cruise Lines International Association North West & Canada 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 or verified.