

2011 Large<sup>1</sup> Commercial Passenger Vessel Discharge Status and Wastewater Treatment

Vessel Operator	Vessel Name	Passenger Capacity	Voyages	Total Passengers <sup>5</sup>	Crew Capacity	Total Persons on Board <sup>2</sup>	Blackwater (BW) Treatment System Manufacturer	Graywater (GW) Treatment Manufacturer if different	Permitted to discharge in Alaska in 2011 <sup>3</sup>		Alaska DEC Approval Discharge Type
									BW	GW <sup>4</sup>	
1 Carnival Cruise Lines	<i>Carnival Spirit</i>	2150	18	38,700	934	3084	Rochem Bio-filtration	Rochem	No	Yes <sup>4</sup>	Continuous
2 Celebrity Cruises	<i>Century</i>	1812	18	32,616	Unknown	1812+crew	Unknown	Unknown	No	No	No
3 Celebrity Cruises	<i>Infinity</i>	2449	19	46,531	930	3379	Zenon		No	No	No
4 Celebrity Cruises	<i>Millennium</i>	2449	17	41,633	1001	3450	Hydroxyl Cleansea		No	No	No
5 Crystal Cruises	<i>Symphony</i>	940	9	8,460	Unknown	940+crew	Unknown	Unknown	No	No	No
6 Disney	<i>Wonder</i>	2834	18	51,012	920	3754	Hamworthy Bioreactor		Yes	Yes	Underway
7 Holland America	<i>Amsterdam</i>	1380	11	15,180	647	2027	Unknown	Unknown	No	No	No
8 Holland America	<i>Oosterdam</i>	1916	20	38,320	800	2716	Rochem Bio-filtration		No	No	No
9 Holland America	<i>Statendam</i>	1260	18	22,680	588	1848	Zenon		Yes	Yes	Continuous
10 Holland America	<i>Volendam</i>	1432	17	24,344	647	2079	Zenon		Yes	Yes	Continuous
11 Holland America	<i>Westerdam</i> <sup>6</sup>	1916	20	38,320	Unknown	1916+crew	Rochem Bio-filtration	Ovivo	No	No	No
12 Holland America	<i>Zaandam</i>	1432	19	27,208	647	2079	Zenon		Yes	Yes	Continuous
13 Holland America	<i>Zuiderdam</i>	1916	19	36,404	Unknown	1916+crew	Rochem Bio-filtration		No	No	No
14 Norwegian Cruise Lines	<i>Norwegian Pearl</i>	2394	20	47,880	1100	3494	Scanship		Yes	Yes	Underway
15 Norwegian Cruise Lines	<i>Norwegian Star</i>	2348	20	46,960	1100	3448	Scanship		Yes	Yes	Underway
16 Oceania	<i>Regatta</i>	777	9	6,993	Unknown	777+crew	Triton		Yes	Yes	Continuous
17 P&O	<i>Arcadia</i>	2019	1	2,019	Unknown	2019+crew	Unknown	Unknown	No	No	No
18 Princess Cruise Line	<i>Coral Princess</i>	1974	18	35,532	900	2800	Hamworthy Bioreactor		Yes	Yes	Underway
19 Princess Cruise Line	<i>Diamond Princess</i>	2678	20	53,560	1238	3916	Hamworthy Bioreactor		Yes	Yes	Underway
20 Princess Cruise Line	<i>Golden Princess</i>	2636	19	50,084	1060	3696	Hamworthy Bioreactor		Yes	Yes	Continuous (GW)/Underway (BW and GW)
21 Princess Cruise Line	<i>Island Princess</i>	1974	18	35,532	900	2874	Hamworthy Bioreactor		Yes	Yes	Underway
22 Princess Cruise Line	<i>Sapphire Princess</i>	2678	18	48,204	1238	3916	Hamworthy Bioreactor		Yes	Yes	Continuous (GW)/Underway (BW and GW)
23 Princess Cruise Line	<i>Sea Princess</i>	2016	13	26,208	854	2870	Hamworthy Bioreactor		Yes	Yes	Underway
24 Prestige Cruises	<i>Seven Seas Navigator</i>	540	16	8,640	350	890	Scanship		Yes	Yes	Underway
25 Royal Caribbean Cruises	<i>Radiance of the Seas</i>	2501	14	35,014	859	3360	Hamman		No	No	No
26 Royal Caribbean Cruises	<i>Rhapsody of the Seas</i>	2435	17	41,395	Unknown	2435+crew	Hamman		No	No	No
27 Silver Seas	<i>Silver Shadow</i>	382	16	6,112	305	687	Bio Epure/Marisan		Yes	Yes	Continuous
		<b>Totals</b>	<b>442</b>	<b>865,541</b>							

In Grey- These vessels did not discharge in Alaska waters during the 2011 season.

<sup>1</sup> A large vessel has overnight accommodations for 250 or more passengers.

<sup>2</sup> Capacity is calculated from Registration, Vessel Specific Sampling Plan, or Notice of Intent. Actual number of passenger aboard varies dependent upon sales.

<sup>3</sup> Alaska water includes the Alexander Archipelago and extends 3 miles from the coastline. Only vessels that discharge into Alaska waters are required to meet wastewater sampling and reporting requirements.

<sup>4</sup> Galley graywater not discharged

<sup>5</sup> Assumes full capacity on every voyage

<sup>6</sup> Registered to discharge but has not reported discharges to dates in Alaskan waters.