

2003 Large* Commercial Passenger Vessels Discharge Status and Wastewater Treatment Table updated October 24, 2003 by DEC

Large Vessel Operator	Large Vessel Name	Passenger Capacity (actual)	Crew Capacity	Total Persons on Board***	Graywater (GW) Treatment System Manufacturer	Blackwater (BW) Treatment System Manufacturer	Discharging in Alaska**		Sampling in Season	
							BW	GW	3rd Party	DEC
Bergshav Management	<i>World</i>	320	250	570	Scanship	Scanship	No	No	No	No
Carnival Cruise Lines	<i>Carnival Spirit*</i>	2124	900	3059	Rochem [Reverse Osmosis(RO)]	Triton Format (Biological)	No	Yes, no galley	Yes	Yes
Celebrity Cruises	<i>Mercury*</i>	1870	997	2867	Mixed with BW	Rochem	Yes	Yes	Yes	Yes
Celebrity Cruises	<i>Infinity</i>	2038	997	3035	Unknown	Hamann	No	No	No	No
Celebrity Cruises	<i>Summit</i>	2038	997	3035	Unknown	Hamann	No	No	No	No
Crystal Cruise Lines	<i>Crystal Harmony</i>	940	545	1485	Unknown	Triton Format	No	No	No	No
Hapag- Lloyd	<i>Europa</i>	402	280	682	Unknown	Unknown	No	No	No	No
Holland America	<i>Amsterdam</i>	1460	647	2107	Unknown	Unknown	No	No	No	No
Holland America	<i>Maasdam*</i>	see total	see total	1854	Mixed with BW	Zenon	Yes	Yes	Yes	Yes
Holland America	<i>Prinsendam</i>	see total	see total	748+crew	Unknown	Unknown	No	No	No	No
Holland America	<i>Ryndam*</i>	1266	571	1854	Mixed with BW	Zenon	Yes	Yes	Yes	Yes
Holland America	<i>Statendam*</i>	1266	571	1854	Mixed with BW	Zenon	Yes	Yes	Yes	Yes
Holland America	<i>Veendam*</i>	1266	571	1854	Mixed with BW	Zenon	Yes	Yes	Yes	Yes
Holland America	<i>Volendam*</i>	1440	642	2060	Mixed with BW	Zenon	Yes	Yes	Yes	Yes
Holland America	<i>Zaandam*</i>	1460	647	2060	Mixed with BW	Zenon	Yes	Yes	Yes	Yes
Japan Cruise Lines	<i>Pacific Venus</i>	see total	see total	532+crew	Unknown	Unknown	No	No	No	No
Kyma Ship Management	<i>Topaz</i>	see total	see total	1050+crew	Unknown	Unknown	No	No	No	No
Mariser Marine	<i>Universe Explorer</i>	688 (450)	365	815	Unknown	Unknown	No	No	No	No
Mitsui O.S.K. Passenger Line	<i>Nippon Maru</i>	500-999	unknown	unknown	Unknown	Orca II	No	No	No	No
Norwegian Cruise Lines	<i>Norwegian Sky*</i>	1986	950	2936	Mixed with BW	Scanship	Yes	Yes	Yes	Yes
Norwegian Cruise Lines	<i>Norwegian Sun*</i>	1936	950	2886	Mixed with BW	Scanship	Yes	Yes	Yes	Yes
Norwegian Cruise Lines	<i>Norwegian Wind*</i>	1728	700	2428	Mixed with BW	Scanship	Yes	Yes	Yes	Yes
Princess Cruise Line	<i>Coral Princess*</i>	1950	850	2800	Accommodations mixed with BW	Hamworthy Bioreactor	Yes	Only	Yes	Yes
Princess Cruise Line	<i>Dawn Princess*</i>	1950	900	2850	Accommodations mixed with BW	Hamworthy Bioreactor	Yes	Only	Yes	Yes
Princess Cruise Line	<i>Island Princess*</i>	1950	850	2800	Accommodations mixed with BW	Hamworthy Bioreactor	Yes	Only	No	No
Princess Cruise Line	<i>Pacific Princess*</i>	777	373	1150	Accommodations mixed with BW	Hamworthy Bioreactor	Yes	Only	Yes	Yes
Princess Cruise Line	<i>Star Princess*</i>	2600	1150	3750	Accommodations mixed with BW	Hamworthy Bioreactor	Yes	Only	Yes	Yes
Princess Cruise Line	<i>Sun Princess*</i>	1950	900	2850	Accommodations mixed with BW	Hamworthy Bioreactor	Yes	Only	Yes	Yes
Radisson Seven Seas	<i>Seven Seas Mariner*</i>	769	431	1200	Mixed with BW	Hamworthy	Yes	Yes	Yes	Yes
Royal Caribbean Cruises Ltd.	<i>Legend of the Seas</i>	~2100	735	~2835	Unknown	Hamann	No	No	No	No
Royal Caribbean Cruises Ltd.	<i>Radiance of the Seas</i>	2100	859	2959	Unknown	Hamann	No	No	No	No
Royal Caribbean Cruises Ltd.	<i>Vision of the Seas</i>	2400	778	3178	Unknown	Hydroxyl	No	No	No	No

* A large vessel has overnight accommodations for 250 or more passengers. A small vessel has overnight accommodations for 50-249 passengers.

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

*** Capacity is taken from Registration, Vessel Specific Sampling Plan or Juneau Cruiseship Schedule. Actual passenger numbers are based on vessel configuration and sales.

*Certified by USCG to meet more stringent effluent limits and discharge continuously

ROCHEM is a reverse osmosis filtration system.
 ZENON is a biological reactor and filtration system.
 Hamworthy Bioreactor and ultrafiltration system.
 Scanship is a biological reactor and filtration system.