

2023 Large Commercial Passenger Vessel Report

COMMERCIAL PASSENGER VESSEL
ENVIRONMENTAL COMPLIANCE (CPVEC)
PROGRAM



January 2024



Cover photo: Viking Orion and Eurodam docked in Sitka's Cruise Terminal on May 17th, 2023.

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INTRODUCTION

This report summarizes wastewater sampling and compliance information for all large commercial passenger vessels (CPVs) that operated in Alaska in 2023. CPVs are split into two categories, small (50 to 249 passengers) and large (over 250 passengers). Large CPVs are defined in Alaska Statute (AS 46.03.490(2) and (7)) as vessels that carry passengers for hire and that have overnight accommodations for 250 or more passengers (excluding crew). Large vessels accounted for 98.7% of total cruise ship passengers that visited Alaska in 2023. Table 1 lists the large CPVs which operated in Alaska in 2023 and provides the number of voyages and passenger capacity amounts for the 2023 season.

This year, forty-five (45) large CPVs operated in Alaska, with twenty-seven (27) of those vessels registered to discharge treated wastewater to Alaska water. DEC staff performed a total of sixty-six (66) inspections aboard large CPVs this summer. Of those, thirty-nine (39) were in-port inspections and twenty-seven (27) of those were underway inspections. This season, every discharging vessel had an underway inspection in which a DEC inspector rode on board the vessel to monitor for environmental compliance.

Table 1. 2023 Large Cruise Ship Voyages and Passenger Counts

Vessel Name	Vessel Operator	Passenger Capacity	Planned Voyages	Completed Voyages	2023 Passenger Capacity
Brilliance of the Seas	Royal Caribbean Cruises	2,148	22	22	47,256
Carnival Luminosa	Carnival Cruise Lines	2,826	20	20	56,520
Carnival Miracle	Carnival Cruise Lines	2,124	10	10	21,240
Carnival Spirit	Carnival Cruise Lines	2,124	21	21	44,604
Celebrity Eclipse	Celebrity Cruises	2,852	18	18	51,336
Celebrity Millenium	Celebrity Cruises	2,158	19	19	41,002
Celebrity Solstice	Celebrity Cruises	2,852	20	20	57,040
Crown Princess	Princess Cruise Line	3,090	15	15	46,350
Discovery Princess	Princess Cruise Line	3,660	22	22	80,520
Disney Wonder	Disney	2,800	18	18	50,400
Eurodam	Holland America	2,104	23	23	48,392
Fridtjof Nansen	Hurtigruten	530	2	2	1,060
Grand Princess	Princess Cruise Line	2,606	21	21	54,726
Insignia	Oceania	684	1	1	684
Koningsdam	Holland America	2,650	23	23	60,950
L'Astral	Ponant	264	2	2	528
Le Boreal	Ponant	264	2	2	528
Le Commandant Charcot	Ponant	270	1	1	270
Majestic Princess	Princess Cruise Line	3,560	20	20	71,200
Nieuw Amsterdam	Holland America	2,106	21	21	44,226
Noordam	Holland America	1,972	20	20	39,440
Norwegian Bliss	Norwegian Cruise Line	4,004	28	28	112,112
Norwegian Encore	Norwegian Cruise Line	4,004	25	25	100,100
Norwegian Jewel	Norwegian Cruise Line	2,338	23	23	53,774
Norwegian Spirit	Norwegian Cruise Line	2,042	18	18	36,756
Norwegian Sun	Norwegian Cruise Line	1,936	18	18	34,848
Ovation of the Seas	Royal Caribbean Cruises	4,182	21	21	87,822
Quantum of the Seas	Royal Caribbean Cruises	4,188	21	21	87,948

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Queen Elizabeth	Cunard	2,077	8	8	16,616
Radiance of the Seas	Royal Caribbean Cruises	2,142	20	18	38,556
Regatta	Oceania	684	13	13	8,892
Roald Amundsen	Hurtigruten	530	8	8	4,240
Royal Princess	Princess Cruise Line	3,560	20	20	71,200
Ruby Princess	Princess Cruise Line	3,084	14	14	43,176
Sapphire Princess	Princess Cruise Line	2,678	21	21	56,238
Seabourn Odyssey	Seabourn	458	20	20	9,160
Seabourn Venture	Seabourn	264	1	1	264
Seven Seas Explorer	Regent Seven Seas Cruisies	809	19	19	15,371
Silver Muse	Silver Seas	596	19	19	11,324
Silver Whisper	Silver Seas	388	18	18	6,984
Silver Wind	Silver Seas	274	2	2	548
Star Breeze	Windstar Cruises	312	10	9	2,808
Viking Orion	Viking	930	12	12	11,160
Volendam	Holland America	1,432	20	20	28,640
Westerdam	Holland America	1,964	23	23	45,172
Total Passengers					1,701,981

*These passenger capacity counts are assuming full passenger capacity on every voyage.

** “Voyage” is defined at Alaska Statute 46.03.490(17) to mean “a vessel trip to or from one or more ports of call in the state with the majority of the passengers for hire completing the entire vessel trip; a vessel trip involving stops at more than one port of call is considered a single voyage so long as the majority of the passengers for hire complete the entire trip.”

The vessels that registered to discharge are authorized to discharge under the 2014 Large Commercial Passenger Vessel Wastewater Discharge General Permit (General Permit). The General Permit requires that representative samples be taken monthly for every wastewater stream discharged to Alaska waters. Wastewater effluent sampling is required to verify compliance with General Permit effluent limits. Data gathered in 2023 will also be appended to a working dataset to allow comparisons across years and to inform drafting of future vessel wastewater discharge permits. This report summarizes 2023 sampling results of large cruise ship treated wastewater effluent in Alaska.

Reports and summaries for prior years can be found on the cruise program’s report webpage <https://dec.alaska.gov/water/cruise-ships/cruise-reports/>

BACKGROUND

CPVs produce two types of wastewater: blackwater and graywater. Blackwater is wastewater from ships’ toilets and medical facilities. Graywater is wastewater from accommodations (showers/sinks), galley areas, and laundry. Any combination of blackwater and graywater will be referred to as mixed wastewater in this report, but technically it is considered blackwater.

All wastewater, whether blackwater or graywater, must be treated prior to discharge in Alaska waters. All large CPVs that are authorized to discharge have advanced wastewater treatment systems (AWTS) on board to treat this wastewater and are certified by the United States Coast Guard (USCG). The large CPV wastewater general permit outlines the limitations that all wastewater effluent must adhere to (Part 5.3 Effluent Limitations and Alaska Statute 46.03.463(b) and (c)), and vessels must alert the Department of Environmental Conservation (DEC or Department) when these parameters are exceeded.

All large discharging CPVs are required to conduct wastewater sampling and submit monthly discharge monitoring reports (DMRs) to the Department which include the analytical reports from these sample events.

The Department reviews sample reports and DMRs submitted by operators to evaluate compliance with the wastewater standards as outlined in the General Permit. Additionally, discharging vessels are required to submit the vessel's discharge logs monthly and all large CPVs (discharging and non-discharging) are required to submit hourly global positioning system (gps) positions for each vessel.

Department staff inspect all large CPVs. Non-discharging vessels are inspected in-port while discharging vessels receive inspections both in-port and while underway. During these inspections, DEC inspectors review vessel paperwork and logs, inspect machinery spaces, engine control rooms, trash and garbage rooms, bridge, and deck spaces looking for any non-compliance items. Additionally, staff will discuss any discharge violations (exceedances) reported on the monthly DMRs to ascertain the cause and corrective measures taken.

These inspection reports are public documents and can be viewed at <https://dec.alaska.gov/Applications/Water/EDMS/ncore/external/home>

METHODS

The number of required samples for large CPVs, and which parameters are analyzed in these samples, are defined in the General Permit. To ensure quality sampling data, the Cruise Line International Association (CLIA) provides a Quality Assurance Project Plan (QAPP) every year that defines minimum requirements for sampling and analysis of wastewater. This document also specifies approved methods for sampling and the requirements for sample collections, custody, and laboratory analysis. Vessels can either develop their own QAPP or use the CLIA QAPP, however, most use the generic QAPP developed by CLIA.

Every CPV is required to submit its own Vessel Specific Sampling Plan (VSSP) which must be approved by the Department. This document is unique to the vessel and contains a description of the DEC approved sample port and location. This document also describes appropriate sampling event times to ensure that samples are collected in a consistent manner and to ensure samples are representative of wastewater discharges into Alaska waters.

Sampling may occur while underway (when the vessel is travelling at a speed above 6 knots) or while the cruise ship is docked. Sample results presented in this report only include data collected while a cruise ship was actively discharging to Alaska waters.

SAMPLE RESULTS

About 2% of the sample events resulted in exceedances. Table 2 shows the total number of vessels that had exceedances in 2023 (and the total number of vessels from 2022) while Table 3 provides further information on which specific vessels had sampling exceedances. This season had fewer instances of fecal coliform, copper, and 5-day biochemical oxygen demand (BOD) exceedances than 2022. However, a rise in ammonia and chlorine exceedances was noted this season.

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Table 2. Total vessels with exceedances

Type of Exceedance	Number of vessels with Exceedance in 2023	Percentage of vessels with exceedance	Number of vessels with Exceedance in 2022	Percentage of vessels with exceedance
Total vessels with BOD exceedances (>60mg/L)	2	7%	7	30%
Total vessels with chlorine exceedances (>0.0075 mg/L)	6	22%	2	9%
Total vessels with copper exceedances (>77ug/L)	1	4%	3	13%
Total vessels with fecal exceedances (>40FC/100ml)	4	15%	6	26%
Total vessels with nitrogen, as ammonia exceedances (>78mg/L)	2	7%	0	0%
Total vessels with pH exceedances (>6.0 S.U.)	2	7%	3	13%
Total number of discharging vessels per season	2023 - 27 vessels		2022 - 23 vessels	

Unlike the General Permit parameters that are required to be sampled twice per month, sampling for priority parameters (volatile organic compounds (VOCs) and base neutral acids (BNAs)) and nutrients are not required with every sample. This data is not provided in the report but can be provided upon request. In general, this sampling routinely returns nondetectable levels of pollutants and is not included in this report to streamline the data given to the most relevant information.

Table 3. Sampling and Exceedance Summary

Vessel Name	Total Number of Samples (total)	Number of BOD Exceedances	Number of Chlorine Exceedances	Number of Copper Exceedances	Number of Fecal Exceedances	Number of Nitrogen, Ammonia Exceedances	Number of pH Exceedances
Crown Princess	18	0	0	0	2	0	0
Discovery Princess	14	0	0	0	0	0	0
Disney Wonder	10	0	1	0	0	0	0
Eurodam	10	1	0	0	1	0	0
Grand Princess	20	0	0	0	0	0	0
Insignia	1	0	0	0	0	0	0
Koningsdam	12	0	0	0	0	0	0
Majestic Princess	15	0	0	0	0	0	0
Nieuw Amsterdam	11	0	1	0	0	0	0
Norwegian Bliss	13	0	0	0	0	0	0
Norwegian Encore	11	0	0	0	0	0	0
Norwegian Jewel	12	0	0	0	0	0	0
Norwegian Spirit	9	0	0	0	0	0	0
Norwegian Sun	11	0	0	0	0	0	0
Ovation of the Seas	12	0	0	0	0	0	0
Quantum of the Seas	10	0	0	0	0	0	2
Queen Elizabeth	7	0	0	0	0	0	0
Regatta	18	0	0	0	0	0	0
Roald Amundsen	8	0	0	0	0	0	0
Royal Princess	15	0	1	1	1	1	0
Ruby Princess	18	0	1	0	0	0	0
Sapphire Princess	9	1	2	0	0	0	0
Seabourn Odyssey	11	0	0	0	0	0	0
Seven Seas Explorer	6	0	0	0	0	1	0
Star Breeze	7	0	1	0	0	0	0
Viking Orion	11	0	0	0	1	0	2
Volendam	11	0	0	0	0	0	0
Totals	310	2	7	1	5	2	4
Percent of Samples		1%	2%	1%	2%	1%	1%

Table 4. Wastewater data summary

Blackwater Effluent		Number of Times Measured	Lowest Measured Value	Highest Measured Value
Analyte	Units			
pH	SU	270	5.5	8.93
Free Chlorine	mg/L	2	2.2	8.8
Total Chlorine	mg/L	8	0.1	8.8
Fecal Coliform Bacteria	FC/100ml	38	2	58
Total Suspended Solids	mg/L	65	2.4	20
Biochemical Oxygen Demand	mg/L	190	2	78
Ammonia	mg/L	122	0.53	210
Copper (Dissolved)	ppb	130	0.64	88

Graywater Effluent		Number of Times Measured	Lowest Measured Value	Highest Measured Value
Analyte	Units			
pH	SU	40	6.04	8
Free Chlorine	mg/L	0	0	0
Total Chlorine	mg/L	0	0	0
Fecal Coliform Bacteria	FC/100ml	3	5	600
Total Suspended Solids	mg/L	1	10	10
Biochemical Oxygen Demand	mg/L	16	2.1	19
Ammonia	mg/L	23	0.58	68
Copper (Dissolved)	ppb	32	1	39

Table 4 provides a data summary from both blackwater and graywater samples. In 2023, the values for fecal coliform in mixed wastewater exceedances were far fewer than in 2022. The Crown Princess graywater fecal exceedance on May 18, 2023 is of note since in 2022 almost no fecal coliform was detected in any graywater samples (2022 had a maximum value of 3 FC/100ml compared to 600 FC/100ml max value in 2023). Table 5 provides information on which vessels were authorized to discharge treated wastewater in Alaska in 2023, what types of discharges were authorized, and what equipment these vessels used to treat wastewater.

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Table 5. Large CPV authorizations, AWT/S model, and scrubber system type

Vessel Name	Vessel Operator	Wastewater Treatment System	GP Authorization	Permitted to Discharge			Scrubber System
				Stationary	Underway	Skagway	
Brilliance of the Seas	Royal Caribbean Cruises		No	No			Hybrid EGCS
Carnival Luminosa	Carnival Cruise Lines		No	No			Open Loop EGCS
Carnival Miracle	Carnival Cruise Lines		No	No			Open Loop EGCS
Carnival Spirit	Carnival Cruise Lines		No	No			Open Loop EGCS
Celebrity Eclipse	Celebrity Cruises		No	No			Open Loop EGCS
Celebrity Millenium	Celebrity Cruises		No	No			Hybrid EGCS
Celebrity Solstice	Celebrity Cruises		No	No			Hybrid EGCS
Crown Princess	Princess Cruise Line	Hamworthy MBR (x3)	2013DB0004-0006	Yes	Yes	No	Open Loop EGCS
Discovery Princess	Princess Cruise Line	Hamworthy MBR (x2)	2013DB0004-0041	Yes	Yes	No	Open Loop EGCS
Disney Wonder	Disney	Hamworthy MBR (x2)	2013DB0004-0001	No	Yes	No	None (MGO only)
Eurodam	Holland America	Hamworthy MBR (x2)	2013DB0004-0035	No	Yes	No	Open Loop EGCS
Fridtjof Nansen	Hurtigruten		No	No			None (MGO only)
Grand Princess	Princess Cruise Line	Hamworthy MBR (x3)	2013DB0004-0008	Yes	Yes	No	Open Loop EGCS
Insignia	Oceania	Scanship AWP 25	2013DB0004-0045	Yes	Yes	No	None (MGO only)
Koningsdam	Holland America	Hamworthy MBR (x2)	2013DB0004-0040	No	Yes	No	Open Loop EGCS
L'Astral	Ponant		No	No			None (MGO only)
Le Boreal	Ponant		No	No			
Le Commandant Charcot	Ponant		No	No			
Majestic Princess	Princess Cruise Line	Hamworthy MBR 24 (x2)	2013DB0004-0042	Yes	Yes	No	Open Loop EGCS
Nieuw Amsterdam	Holland America	Hamworthy 360N (x2)	2013DB0004-0023	No	Yes	No	Open Loop EGCS
Noordam	Holland America	Hamworthy MBR 16 (x2)	No	No			Open Loop EGCS
Norwegian Bliss	Norwegian Cruise Line	Scanship AWP 60	2013DB0004-0028	Yes	Yes	No	Hybrid EGCS
Norwegian Encore	Norwegian Cruise Line	Scanship AWP 60	2013DB0004-0036	Yes	Yes	Yes	Hybrid EGCS
Norwegian Jewel	Norwegian Cruise Line	Scanship AWP 60	2013DB0004-0015	Yes	Yes	Yes	Hybrid EGCS
Norwegian Spirit	Norwegian Cruise Line	Scanship AWP	2013DB0004-0043	Yes	Yes	Yes	None (MGO only)
Norwegian Sun	Norwegian Cruise Line	Scanship AWP 25	2013DB0004-0017	Yes	Yes	Yes	Hybrid EGCS
Ovation of the Seas	Royal Caribbean Cruises	Scanship AWP 60	2013DB0004-0032	No	Yes	No	Hybrid EGCS
Quantum of the Seas	Royal Caribbean Cruises	Scanship AWP 60	2103DB0004-0037	No	Yes	No	Hybrid EGCS
Queen Elizabeth	Cunard	Hamworthy MBR 320	2013DB0004-0035	No	Yes	No	Open Loop EGCS
Radiance of the Seas	Royal Caribbean Cruises		No	No			Hybrid EGCS
Regatta	Oceania	Triton Water MBR	2013DB0004-0011	Yes	Yes	Yes	None (MGO only)
Roald Amundsen	Hurtigruten	Scanship AWP 8	2013DB0004-0049	No	Yes	No	None (MGO only)
Royal Princess	Princess Cruise Line	Hamworthy MBR 24 (x2)	2013DB0004-0034	Yes	Yes	No	Open Loop EGCS
Ruby Princess	Princess Cruise Line	Hamworthy MBR 16 (x3)	2013DB0004-0005	Yes	Yes	No	Open Loop EGCS
Sapphire Princess	Princess Cruise Line	Hamworthy MBR 8 (x2) & MBR 320 (x1)	2013DB0004-0047	No	Yes	No	Open Loop EGCS
Seabourn Odyssey	Seabourn	Hamworthy MBR 140 (x2)	2013DB0004-0039	Yes	Yes	No	None (MGO only)
Seabourn Venture	Seabourn		No	No			None (MGO only)
Seven Seas Explorer	Regent Seven Seas Cruises	EVAC MBR 200K	2013DB0004-0046	Yes	Yes	Yes	None (MGO only)
Silver Muse	Silver Seas	Scanship AWP 25	2013DB0004-0029	No			None (MGO only)
Silver Whisper	Silver Seas		No	No			None (MGO only)
Silver Wind	Silver Seas		No	No			None (MGO only)
Star Breeze	Windstar Cruises	EVAC MBR 145K	2013DB0004-0038	Yes	Yes	No	None (MGO only)
Viking Orion	Viking	Scanship AWP 25	2013DB0004-0030	Yes	Yes	No	Closed Loop EGCS
Volendam	Holland America	Zenon ZWIMBR DB5881-660	2013DB0004-0048	No	Yes	No	Open Loop EGCS
Westerdam	Holland America		No	No			Open Loop EGCS

SAMPLING VIOLATIONS

Table 6 below provides details on all exceedances and subsequent compliance measures taken by the Department. All vessels with sampling exceedances in 2023 were issued a Notice of Violation.

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Table 6. Exceedance results and compliance actions

Vessel Name	Sample Date	Sample ID	Parameter Exceeded	Parameter Limit	Parameter Measured Value	Compliance Action
Crown Princess	5/8/2023	AE 31746	Fecal coliform	40 FC/100ml	58 FC/100ml	Notice of Violation
	5/18/2023	AE 31957	Fecal coliform	40 FC/100ml	68 FC/100ml	
			Fecal coliform, monthly mean	14 FC/100ml	53 FC/100ml	
		AE 31965	Fecal coliform	40 FC/100ml	600 FC/100ml	
			Fecal coliform, monthly mean	14 FC/100ml	24.5 FC/100ml	
Disney Wonder	8/25/2023	AE 33020	Chlorine, total	0.0075 mg/L	0.1 mg/L	Notice of Violation
Eurodam	9/13/2023	AE 33253	BOD, 5 day	60 mg/L	68 mg/L	Notice of Violation
			Fecal coliform, monthly mean	14 FC/100ml	38 mg/100ml	
Nieuw Amsterdam	8/17/2023	AE 32990	Chlorine, total	0.0075 mg/L	0.11 mg/L	Notice of Violation
Quantum of the Seas	7/14/2023	AE 32498	pH	6 SU	5.73 SU	Notice of Violation
	8/4/2023	AE 32812	pH	6 SU	5.5 SU	
Royal Princess	5/16/2023	AE 31946	Fecal coliform	40 FC/100ml	350 FC/100ml	Notice of Violation
			Fecal coliform, monthly mean	14 FC/100ml	18.7 FC/100ml	
	7/25/2023	AE 32733	Chlorine, total	0.0075 mg/L	> 2.20 mg/L	
	6/6/2023	AE 32170	Copper	77 ug/L	82 ug/L	
	8/29/2023	AE 33131	Ammonia (As N)	160 mg/L	190 mg/L	
Ruby Princess	5/11/2023	AE 31838	Chlorine, total	0.0075 mg/L	0.17 mg/L	Notice of Violation
	7/20/2023	AE 32616	Chlorine, total	0.0075 mg/L	0.12 mg/L	
Sapphire Princess	6/18/2023	AE 32253	BOD, 5 day	60 mg/L	78 mg/L	Notice of Violation
			BOD, monthly mean	30 mg/L	54.5 mg/L	
	7/9/2023	AE 32471	BOD, 5 day	60 mg/L	78 mg/L	
		AE 32471	BOD, monthly mean	30 mg/L	78 mg/L	
	9/10/2023	AE 33201	Chlorine, total	0.0075 mg/L	0.16 mg/L	
	9/23/2023	AE 33459	Chlorine, total	0.0075 mg/L	0.1 mg/L	
Seven Seas Explorer	9/9/2023	AE 33407	Ammonia (As N)	78 ug/L	210 mg/L	Notice of Violation
Star Breeze	7/8/2023	AE 32472	Chlorine, total	0.0075 mg/L	>8.8 mg/L	Notice of Violation
Viking Orion	5/17/2023	AE 31959	Fecal coliform	40 FC/100ml	56 FC/100ml	Notice of Violation
			Fecal coliform, monthly mean	14 FC/100ml	56 FC/100ml	
	6/24/2023	AE 32519	pH	6 SU	5.81 SU	
	9/2/2023	AE 33164	pH	6 SU	5.83 SU	

OTHER VIOLATIONS

Ten unauthorized discharge events took place in 2023 (see Table 7). Of those, eight involved oil and were referred to both the Spill Prevention and Response Division of the DEC (SPAR) and the United States Coast Guard (USCG) for investigation and enforcement. Two of those unauthorized discharge events fell under the jurisdiction of the Division of Water CPV Compliance Program and the Division issued violations for both events.

Table 7. 2023 Unauthorized discharge events

Vessel Name	Date	Item	Volume	Misc.
Brilliance of the Seas	7/11/2023	Hydraulic Oil	0.26 gallons	Referred to DEC-SPAR division and USCG
Eurodam	5/18/2023	Hydraulic Oil	0.5 ltrs	Referred to DEC-SPAR division and USCG
	5/18/2023	Hydraulic Oil	0.5 ltrs	Referred to DEC-SPAR division and USCG
Koningsdam	5/25/2023	Hydraulic Oil	2 ml	Referred to DEC-SPAR division and USCG
	7/3/2023	Hydraulic Oil	5 ml	Referred to DEC-SPAR division and USCG
Nieuw Amsterdam	8/6/2023	Jacuzzi water	1.0 m3	Faulty shut off valve, NOV issued
Quantum of the Seas	6/9/2023	Paint chips/powder	Less than a 1L	Hull husbandry during windy conditions, NOV issued
Seabourn Odyssey	5/16/2023	Oil	unspecified	Referred to DEC-SPAR division and USCG
Volendam	8/26/2023	Oil	a few drops	Referred to DEC-SPAR division and USCG
Westerdam	5/18/2023	Hydraulic Oil	2 ml	Referred to DEC-SPAR division and USCG

COMPLIANCE SUMMARY

DEC staff performed a total of sixty-six (66) inspections aboard large CPVs this summer. Of those, thirty-nine (39) were in-port inspections and twenty-seven (27) of those were underway inspections. This season, every discharging vessel had an underway inspection in which a DEC inspector rode on board the vessel to monitor for environmental compliance. There were six vessels which did not receive in-port inspections this season:

- Two of those (La Boreal and Le Commandant Charcott) only sailed in northwestern Alaska and had between one and two days in Alaska each.
- The Insignia only had one sailing in Alaska this summer, so priority was given to an underway inspection of that vessel.
- The Roald Amundsen had an unexpected port change and arrived in a different location than expected when the inspector arrived to perform the underway inspection. This vessels underway inspection had to be rescheduled for their next voyage. Due to this change, inspectors were not able to perform the in-port inspection this year.
- The Star Breeze did not have an in-port inspection this year; however, the DEC inspector performed an extended underway inspection and rode along on board the vessel for an extra day to allow extra time for compliance monitoring.

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In addition to monitoring sampling events and wastewater compliance, inspectors also monitored for compliance and collected data on other discharges including treated ballast water, food waste, exhaust gas cleaning systems (EGCS), and boiler blowdowns. Discharges from ballast water, food waste, and boiler blowdowns take place almost exclusively outside Alaska waters, but are still monitored by inspectors.

This year, twenty-nine (29) of the large CPVs had an EGCS or “scrubber” system on board. These scrubber systems are designed to remove sulfur gas from stack emissions allowing vessels to combust higher sulfur content fuels (heavy fuel oil). Recently, inspectors have noticed an increase in the number of large vessels installing scrubber systems so they can continue to run high sulfur fuels (all small CPVs including the AMHS ferries run on low sulfur fuels instead of using scrubbers). While only 65% of the large CPVs used scrubbers in 2023, most of the vessels that chose to run low sulfur fuels were the vessels in the smaller range of this category. Of the vessels that carried greater than 1,000 passengers, 93% used scrubbers and ran heavy fuel oil. The only larger vessels in this category that elected to run exclusively on low sulfur fuels instead of using scrubbers were the Disney Wonder and the Norwegian Spirit. The number of vessels using scrubbers has been on a steady rise in past years, and DEC inspectors have increasingly documented their use in inspections reports.

If there are any questions or concerns regarding this report, please contact the acting Cruise Ship Program Manager, Ben Eisenstein, at ben.eisenstein@alaska.gov or 907-465-5161.