	LARGE COMMERCIAL PASSENGER VESSEL NON-DISCHARGE (WW HOLDING) IN PORT INSPECTION REPORT Alaska Department of Environmental Conservation Division of Water	Form: AK-LCPV-D Last Updated 4/21/2025

1: General Information

Inspection Date: 8/16/2025	Vessel Name: Carnival Spirit
Registration # 2025-CS-0030	IMO #.: 9188647
Inspection: ☐ Announced ☒ Unannounced Type: ☒Routine ☐Other: Describe	Location: (Port City/Dock): Juneau, Alaska | Alaska Steam Dock

Arrival Time (at vessel): 09:50	Inspection Start Time: 10:10	Inspection End Time: 12:56

Comments Regarding Access (if any): None

Opening Meeting: The opening meeting was attended by Environmental Officer Anand Bhagat, Staff Captain Pietro Colantonio, and Staff Chief Engineer Damiano Minervini. The inspector presented credentials and informed those present that the Department was performing a routine inspection assessing compliance with State statutes, regulations, and the EPA vessel general permit. Inspector discussed the scope and objectives of the inspection. The inspector informed those present that access to machinery spaces, the engine control room and possibly other secure areas may be necessary to complete inspection and determine compliance. The inspector stated that photos would be taken and records may be requested during and/or after the inspection if necessary to confirm compliance. Those present granted consent to the inspector to complete the inspection with the caveat that if the inspector requested data (sample results, Neptune readings) from the vessel's EGCS units, that the inspector would need to contact the shoreside office directly— the ship had been instructed not to provide that information.

☒ Compliance Follow-Up (list if applicable):
N/A

DEC Compliance Inspector

Name: Laura Jennings
Credential #:357869

Vessel Representatives	Primary Shoreside Contact
Vessel Master: Carmelo Marino Email: spcapt@carnival.com Environmental Officer: Anand Bhagat Email: spenvoff@carnival.com	Name: Silvia Gemignani Title: Environmental Operations Manager Company: Carnival Cruise Lines Phone: (305) 951-2384 Email: sgemignani@carnival.com

2: Wastewater Discharge Documentation and Record Keeping
Passengers onboard (during this voyage): 2,378 passengers | 913 crew
Holding Plan aboard: ☒YES ☐NO
Date and location of most recent USCG inspection: Not Checked
Other Documents Reviewed: None

Wastewater Discharge Logs

☒ WW Discharge Logs for previous 3 years available onboard?

Type of Record Book: ☒ Electronic, ☐ Individual Pages, ☐ Bound Book
NAPA

Electronic logs approved by flag state/class ☒YES ☐NO ☐N/A

If individual pages are used, are measures taken to ensure the records are tamper-proof?
☐YES ☐NO ☒N/A
Describe: Sewage and Grey Water records printed from NAPA

☒ The vessel's name and official number are listed on the front cover and at the top of each page?

☒ Each entry of a discharge is recorded without delay, signed and dated, with each completed page, and signed by the Master of the ship?

List any emergency discharges, unauthorized discharges or otherwise exceptional discharges and any non-compliance with Sewage and Graywater Discharge record keeping requirements:

None reported, none found.

3: Wastewater System

Wastewater Treatment System (maker information): Wartsila MBR

Number of Units on board: Installation of 1 Wartsila MBR in progress; estimated completion date October 2025.

Rated Design Capacity per unit (m^3/day): **N/A**

☐ All monitoring operable/in-use **N/A**

☐ AWTS Maintenance planning and spare parts covered by approved vessel maintenance plan

☐ Checked for operational alarms indicated on the unit's local control panel

General Notes regarding AWTS. Describe overall condition, any maintenance or operational changes, if any that affect system performance including deferred maintenance:

N/A- AWWTS installation is in progress; no wastewater streams are treated at this time. All wastewater discharges are made outside 12nm.

What is the average daily volume (m^3) of wastewater generated by the vessel when operating at full capacity?

200m^3/day

What is the total volume of tank space (in m^3) for:

Designated wastewater (blackwater and greywater) tanks: 3,671m^3 grey water; 327.8m^3 black water

Does the vessel use ballast water tanks as mixed-use tanks in AK? ☒YES ☐NO

According to the vessel's holding plan, Ballast tanks can be designated to store black or grey water. Grey water tanks may hold multiple grey water streams.

If yes, what is the total volume of designated ballast water tanks:

Total wastewater storage volume above includes ballast tank capacities as provided by engineers.

Sufficient holding capacity for current itinerary? ☒YES ☐NO

Vessel offloads grey water to city sewer while in port in Juneau.

Wastewater Discharge Planning and Procedures

Describe the vessel's environmental operations voyage planning:

Navigator creates vessel route in ECDIS. The track is loaded into One Ocean and waypoints are identified for allowable environmental operations. EO and 1st Officer (navigator) meet to verify timing and environmental voyage plan.

The routes are planned prior to the Alaska season. Port-to-port routes and environmental operations are verified 24 hours before departure. The vessel holds departure meetings prior to leaving each port. The voyage overview meeting to discuss the next week's itinerary is typically held in Ketchikan.

What guidance (documents or otherwise) does the crew use when discharging?

One Ocean (shows allowable environmental operations, vessel location and speed) and the voyage plan

☒ MARPOL publications available for reference.

Vessel Environmental Voyage Plan available? ☒YES ☐NO

If YES, which operations are included in the plan:

Open loop EGCS and incinerator use; Grey water, sewage, sewage sludge, bilge water, food waste, RWF, and treated ballast water discharges; ash dispersal and deck washing activities.

Prevention of Spills, Unintended or Unauthorized Discharge

☒ Lock or tamper-proof tag used to secure wastewater discharge valves

☒ Remotely operated valves have controlled access

☐ Controlled access to keys

Multiple overboard discharge valve keys were held on a single key ring that was kept on a desk in the ECR (photo 06).

☒ Overflow alarm system in place, which is regularly tested (log entry)

Tank Level Indicators (TLIs) used to determine tank volumes? ☒YES ☐NO

Are manual soundings required for any WW holding tanks? ☒YES ☐NO

Are ballast water tanks used to hold wastewater? ☒YES ☐NO

If YES, where are internal transfers of wastewater logged?

NAPA. IMAC system also automatically records ECR operations.

Describe how vessel demonstrates that all valves are secured when in AK waters:

Valve status screens and alarms in ECR.

Bio-Residue (sludge) Handling

☒ Discharged to sea outside of 3NM from baseline (Sewage and Graywater Discharge Log)

Discharged outside 12nm.

Capacity of holding tank(s): untreated BW capacity is 327.8m^3

Number of days between required discharges: ~4

Sufficient holding capacity for current itinerary? ☒YES ☐NO

Is any bio residue discharged to shore facilities or incinerated (Garbage Record Book)? ☐YES ☒NO

Untreated Wastewater Steams

Check the following waste streams that are discharged to the sea without treatment:

☒ Galley Graywater

Holding capacity: see note on total storage capacity

☒ ~~Food pulper~~ biodigested food waste

Holding Capacity: 2 tanks, 122m^3

☒ Laundry Graywater

Holding capacity:

☒ Recreational (Pool, Spa). Discharged inside of 3 NM? ☐YES ☒NO.

Discharged outside 12nm

If YES, describe treatment and testing to meet effluent standard:

Holding Capacity: Engineer reported that recreational wastewater is drained through a "main line" and then engineers decide which tank it is directed to.

Where are rec water discharges recorded?

NAPA

4: Invasive Species Prevention and VGP Compliance

Ballast Water

☒ EPA/USCG-approved Ballast Water Treatment System

☐ IMO approved only,

Does the vessel conduct ballast water discharges in Alaska waters? ☐YES ☒NO

☒ Approved Ballast Water Management Plan

Hull Husbandry

☒ Approved Bio Fouling Management Plan on board

Date of last inspection of the hull or niche areas (rudder, propellers): March 2025

Date of last drydocking: March 2025 in Marseille, France

☒ Photographic report from most recent underwater hull inspection/survey available

Cathodic protection/Impressed Current system ☒YES ☐NO

Is underwater hull cleaning to be conducted, planned to occur in AK waters? ☐YES ☒NO

Location (port) where cleanings are planned: N/A

Waste Handling

☒ Garbage Record Book reviewed

☒ Waste offload receipts correlate to record book entries

☒ Marine Growth in Sea-Strainers/piping landed as solid waste to shoreside facility

Marine growth may be offloaded, but is typically incinerated.

Is the vessel fitted with Garbage Incinerators? ☒YES ☐NO

Does the vessel regularly utilize incineration to manage waste? ☒YES ☐NO

If YES, are units functional and operating properly? ☒YES ☐NO

☒ Ash disposal recorded in Garbage Record Book

Describe what types of wastes are incinerated and where/when incinerator operations are used:

Paper, soft plastics, food contaminated waste, and medical wastes (red bags) are incinerated when the vessel is outside 12nm.

Describe food waste processes:

The vessel is fitted with 7 biodigesters and 1 biogrinder to manage food waste. Food waste is sorted by processable (soft foods, small bones, etc,) and non-processable (large bones, coffee grounds, egg shells, etc.) food wastes. After processing through biogrinder and biodigesters, waste is stored in designated tanks and discharged outside 12nm. Unprocessed food wastes are kept in cold storage room and offloaded to a shore facility.

Photoshop onboard? ☒YES ☐NO

☐ If yes, verified silver recovery process?

Silver is offloaded as hazardous waste.

Notes on additional waste:

None

Exhaust Gas Scrubber Systems

Exhaust Gas Scrubber System used? ☒YES ☐NO

If YES, verify the following:

System type: ☒ Open loop ☐ Closed loop ☐ Hybrid

☐ Current endorsed Class annual EGCS survey available for all units- Not checked

☐ Annual wash water effluent discharge test report available

Vessel was instructed not to provide this information or Neptune data to ADEC inspectors. The Staff Chief Engineer indicated that the inspector should reach out to the company directly to request the information.

☒ All continuous monitoring probes calibrated (required at least annually)

EGCS manufacturer's

☒ Annual EPA report (previous calendar year) reviewed?

The vessel reported 19 instances of PAH and Turbidity exceedances in VGP waters in 2024.

EGCS units installed and corresponding combustion sources:

The vessel has 6 DGs.

DG1, DG2, and DG3 are fitted with EGCS units.

Dedicated combustion sources to MGO?

DG4, DG5, and DG6.

An Engineer noted the company plans to install EGCS units on DG4 and DG6 in the near future.

Operational plan for EGCS use in AK Waters? (i.e., Where are scrubbers used during AK season, if using closed loop, describe bleed off:)

Open loop scrubbers are operated daily in Alaska waters, including on short voyage legs, such as that from Skagway to Juneau. Fuel changeover is reported to be complete prior to entering Gastineau Channel.

How many days per voyage does the vessel operate scrubbers in Alaska waters?

~4 days of a 6 day itinerary.

Dock-Side Observations
Potable Water bunkering: ☒YES ☐NO
WW Discharge observed? ☒YES ☐NO ☐ Pump Truck ☒ City Sewer ☐ Overboard
Sheens/Discolorations observed? ☐YES ☒NO Agency Notified: ☐USCG ☐DEC-SPAR If yes, Weather conditions (Wind/Tides):
Any exterior activity (painting/deck wash etc.)? None observed.
NON-VESSEL Observations: (Dock-side Underway items not relating to vessel) None observed.

SECTION 5: OVERVIEW

Inspection Observations/Summary

The inspector arrived at the vessel at approximately 09:50. There was a 15-minute delay while security sought permission for the inspector to come aboard. After the delay, the EO arrived at the security checkpoint and took the inspector to view the garbage sorting and cold storage rooms at 10:10. These facilities were on the way to the Engine Control Room (ECR).

Records review began at 10:18 in the Chief Engineer's office, which is adjacent to the ECR. The inspector reviewed Alaska-specific documentation, passenger counts, wastewater generation amounts, and inquired about the ship's AWTS installation progress. The ship confirmed that during AWTS installation no wastewater streams have been treated.

At 10:39 the inspector entered the ECR to discuss tank volumes, tank capacities, valve statuses, discharge procedures, and scrubber operations with the engineers on duty.

At approximately 11:00 the inspector asked if the most recent EGCS Washwater reports were available. At that time the Chief Engineer indicated that the vessel had been instructed to direct all questions regarding scrubber data directly to Carnival's Shoreside team. The vessel withheld the information. The inspector reviewed the Oil Record Book and fuel bunkering receipts.

At 11:28 the EO, Engineer, and the inspector entered the machinery space to view the oily water separator, specific overboard discharge valves, and the AWTS installation progress.

The EO and inspector returned to the EO's office to view waste offload receipts before arriving on the Bridge at 11:50 to discuss environmental operations planning with the Bridge Officer on Watch. While on the Bridge, the inspector reviewed the NAPA Garbage Record Book, hull husbandry reports, and the Ballast Water Management Plan.

The inspector and EO returned to the ECR at 12:30 to discuss vulnerabilities surrounding the overboard valve discharge keys. The inspector noted that to date the vessel had not reported unauthorized discharges, but that it was inspectors duty to flag potential vulnerabilities and help the vessel remain compliant.

The inspector disembarked the vessel at 12:53 and observed grey water offload to the city sewer and potable water bunkering.

Additional Comments:

On 8/12/2025 the vessel bunkered 300.58 metric tons of IFO-380 (sulfur content 1.40% sulfur m/m) and 251.33 of MGO (sulfur content 0.00117% sulfur m/m) from Phillips 66 in Seattle. The vessel operates open-loop scrubbers.

SECTION 6: FOLLOW-UP

Concerns

Inspector found that numerous valve keys were kept on a single key chain on top of a desk in the ECR. The vessel keeps some keys in the locked tracker boxes as well. An engineer noted that the ship does not feel vulnerable to accidental discharges because the ship has video cameras and discharge alarms in place.

The Oil Record Book entries for 8/12/25 noted discrepancies between the volume of Economiser Washwater and oily sludge discharged to shore facilities and the volume recorded on offload receipts (photos 13 and 14).

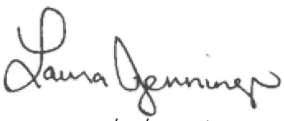
Signature	
Inspector – Laura Jennings Credential Number: 357869 Phone: (907) 465-5300 E-mail: laura.jennings@alaska.gov	 Date: 9/3/2025
Reviewed By – Ben Eisenstein Credential Number: R-598 Phone: (907) 465-5161 E-mail: ben.eisenstein@alaska.gov	 Date: 9/3/2025

Photo Addendum	
Photo 01	**Photo 02**
	
Carnival Spirit in Port, Juneau	Grey Water Tank Volumes, Discharge in Progress

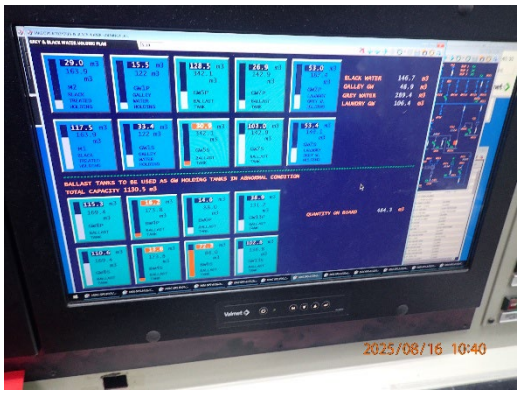
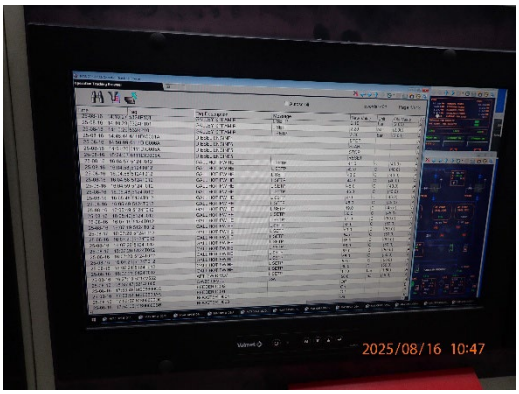
Photo 03	Photo 04
	
Black Water and Ballast Tank Volumes	Operation Tracking Screen, ECR

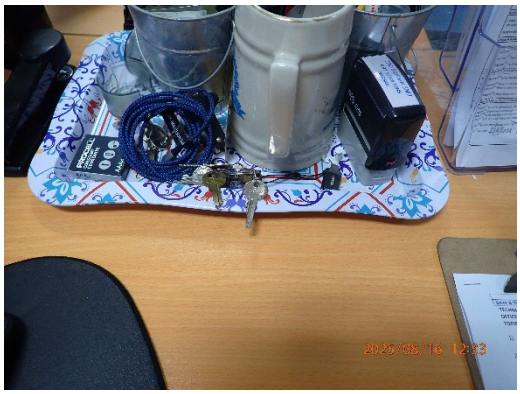
Photo 05	Photo 06
	
Overboard Discharge Valve Keys, ECR	List of Keys Held in Tracker Box, ECR

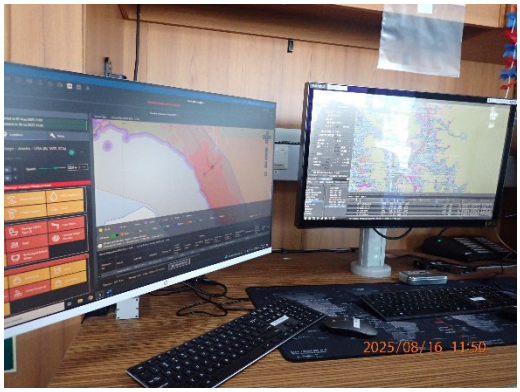
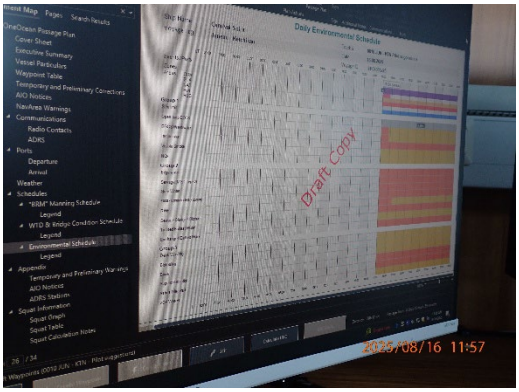
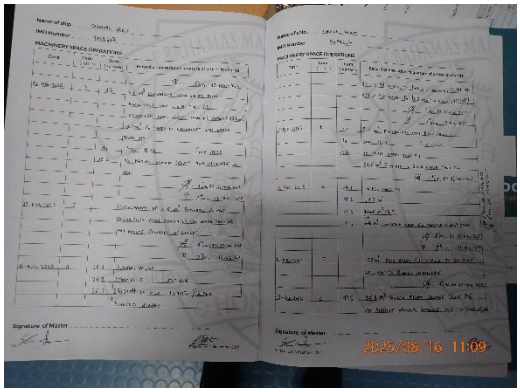
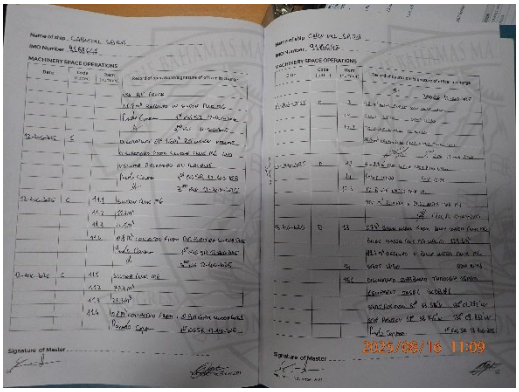
Photo Addendum	
Photo 07	**Photo 08**
	
One Ocean and ECDIS Screens on Bridge	Draft Environmental Operations Schedule

Photo 09	Photo 10
	
MBR Installation in Progress	Oily Water Separator Tanks

Photo 11	Photo 12
	
Tymac Garbage Offload Receipt	Garbage Packed for Offload

Photo Addendum	
Photo 13	**Photo 14**
	
8/12/25 Oil Record Book Entry Noting 3.6m^3 Discrepancy Between Economiser Washwater Discharge and Volume Recorded on Offload Receipt	8/12/25 Oil Record Book Entry Noting 1.6m^3 Discrepancy Between Volume Discharged from Sludge Tank and Volume Recorded on Offload Receipt