	LARGE COMMERCIAL PASSENGER VESSEL PERMITTED / WASTEWATER DISCHARGE UNDERWAY INSPECTION REPORT Alaska Department of Environmental Conservation Division of Water	Form: AK-LCPV-D Last Updated 4/21/2025

1: General Information

Inspection Date: 8/22/25-8/23/25		Vessel Name: Zaandam
GP Auth # 2013DB0004-0052	Registration # 2025-CS-0015 v 1.0	IMO #.: 9156527
Inspection: ☒ Announced ☐ Unannounced Type: ☒Routine ☐Other: Describe		Location: (Port City/Dock): Juneau, AK/CT Dock

Arrival Time (at vessel): 8/22/25 16:25	Inspection Start Date and Time: 8/22/25 16:45	Inspection End Date and Time: 8/23/25 6:00

Comments Regarding Access (if any): None.

Opening Meeting: The opening meeting was attended the Environmental Officer and Chief Engineer. The inspector presented their credentials and informed them that the Department was performing a routine inspection assessing permit compliance and discussed the scope and objectives of the inspection. The inspector informed them that they would need access to machinery spaces, the engine control room, and possibly other secure areas that may be necessary to complete inspection and determine compliance. The inspector informed them that photos would be taken, and records may be requested during and/or after the inspection if necessary to confirm compliance. They granted consent to the inspector to perform inspection.

☒ Compliance Follow-Up (list if applicable):

Sampling Exceedance on sampling event AE 37978 performed on 6/21/2025. Vessel had a TRC reading of 94 mg/L (0.0075mg/L is limit) which is a 1,253,233% exceedance of permit limit. A NOV was issued on 7/7/25 (Enforcement Tracking Number: 25-R0276-40-0001)

DEC Compliance Inspector

Name: Annie Goodenough
Credential #: 353741

Vessel Representatives	Primary Shoreside Contact
Environmental Officer: Vitalii Vasylieuskyi Email: ZADM-Environmental_Officer@hollandamerica.com	Name: Konstantin Konstantinov Title: Director, Fleet Environmental Company: Holland America Line, NV Phone: (661) 210-6296 Email: kkonstantinov@hagroup.com

2: Wastewater Discharge Documentation and Record Keeping
Checked during previous inspection.
Wastewater Discharge Logs
☒ WW Discharge Logs for previous 3 years available onboard? Type of Record Book: ☒ Electronic, ☒ Individual Pages, ☐ Bound Book 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: NAPA electronic logs are used. The electronic entries are printed, signed in ink, and scanned. ☒ 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 at the time of inspection.

3: Wastewater System
AWTS (maker information): Zenon ZeeWeed ZenoGem Immersed Membrane Bioreactor
Number of permitted units onboard: 1 Are there any non-permitted units? (units not intended for use in Alaska) ☐ YES ☒ NO Rated Design Capacity per unit (m^3/day): 660 m^3/day ☒ All monitoring operable/in-use ☒ 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:

The AWTS system components were observed to be operational. Piping and system components were observed to be free of visible corrosion and in good repair. No leaks or foul odors were observed. One low priority alarm was active on the local alarm panel which indicated low air flow in one of the membranes.

Wastewater Discharge Planning and Procedures

Describe the vessel's environmental operations voyage planning:

The navigation officers create a planned track using ECDIS and a bridge officer verifies the route. The environmental officer uses One Ocean to verify the route is planned such that necessary environmental operations can occur throughout the voyage in permitted zones. There are arrival and departure meetings on a daily basis. Passage planning meetings occur regularly, but not every week since the itinerary stays the same from week to week.

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

The Environmental Voyage Plan. Additionally, a proprietary system called One Ocean is used as a reference. The system provides guidance on the locations and types of operations that are allowed by law and company policy. The operational directive also has a comments feature to inform crew members of specific needs of the voyage and company policies.

☒ MARPOL publications available for reference.

Vessel Environmental Voyage Plan available? ☒YES ☐NO

If YES, which operations are included in the plan:

SOx limit, open loop scrubbers, EGCS washwater, incinerator, visible smoke, Nox, bilge water, food waste, recreational water facilities, biosludge, ballast water, dock washing, biofouling, brine, super chlorination, ash disposal, VGP waters.

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

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

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

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

Bio-Residue (sludge) Handling

☒ Discharged to sea outside of 12NM from baseline (Sewage and Graywater Discharge Log)

Capacity of holding tank(s): 180 m^3

Number of days between required discharges: On this itinerary, biosludge is discharged outside 12 nm from Canada near the beginning and end of each weekly voyage. The maximum time between discharges is 5 days.

Sufficient holding capacity for current itinerary? ☒YES ☐NO

Untreated Wastewater Streams

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

☐ Galley Graywater - treated

Holding capacity: not checked

☒ Food pulper (biodigesters)

Holding Capacity: not checked

☐ Laundry Graywater - treated

Holding capacity: not checked

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

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

Holding Capacity: not checked

Regulatory Effluent Sampling

WW sample taken during this inspection? ☒YES ☐NO

Was sample event viewed by inspector? ☒YES ☐NO ☐N/A

General Observations:

AE 38681 approximately 4:00 am

Vessel Process (Effluent) Sampling:

Does the vessel conduct process sampling? ☒YES ☐NO

If YES, check parameters that apply

☒ pH ☒ FC ☒ TSS ☒ BOD ☒ COD

Ammonia and Total chlorine are also measured

Frequency of testing:

Every 3-4 days

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): July 14, 2025

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

(See photo 03)

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: Ketchikan

Waste Handling

☒ Garbage Record Book reviewed (Photo 04)

☒ Waste offload receipts correlate to record book entries (Photo 05)

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

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:

This ship incinerates medical waste only. The last time the incinerator was used, according to logs, was 7/31/25.

Describe food waste processes:

The ship uses biodigestors to process soft food waste. Liquid from the biodigestion process is discharged outside 12 nm. Hard food waste is processed with a biogrinder and dehydrator, stored and then offloaded to become fertilizer in Vancouver.

Photoshop onboard? ☒YES ☐NO

☒ If yes, verified silver recovery process?

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

☒ Annual EPA report (previous calendar year) reviewed?

How many days did the vessel report exceedances on the 2024 EPA Annual Report?

4 days had turbidity exceedances.

How many days per voyage does the vessel operate scrubbers in Alaska waters?
Every day except when within Glacier Bay National Park boundary.

☐ Viewed/collected a portion of Neptune (or other) EGCS monitoring data for further inspection

The Environmental Officer declined to provide monitoring data for the scrubbers.

Was a visible residue, sheen, film or carried over particulate observed in wash water discharge?

☐YES ☒NO

EGCS units installed and corresponding combustion sources.
There are 3 scrubbers

Dedicated combustion sources to MGO?
2 DGs run on MGO exclusively.

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): n/a
Any exterior activity (painting/deck wash etc.)? n/a
NON-VESSEL Observations: (Dock-side Underway items not relating to vessel) n/a

SECTION 5: OVERVIEW
Inspection Observations/Summary
Upon arrival to Zaandam, the inspector met with the Environmental Officer and Chief Engineer to discuss the scope of the inspection. During the meeting, the inspector requested to have the opportunity to sample EGCS wash water once the vessel was underway. A plan was made to sample EGCS wash water after the planned sampling by Admiralty Environmental of the AWTS wash water. Following the pre-inspection meeting, the inspected visited the EO's office to go through

paperwork and details regarding the ship's ballast water system, biofouling reports, garbage records and fuel receipts.

On 8/13/25, the ship bunkered approximately 200 MT of HFO with a sulfur content of 1.6200% and approximately 250 MT of MGO with a sulfur content of 0.0007%.

At 18:20, the inspector visited the machinery space to look at the AWTS system and local control panel. Following the inspection of the machinery space, the EO and inspector parted ways.

The inspector toured the outer decks between 19:30-20:30. No sheens were visible in the water at this time. At approximately 20:30, the inspector received a call from the EO that the **ship declined to sample the EGCS wash water**. The vessel departed Juneau late in the evening after dark.

The inspector, sampler from Admiralty Environmental, and EO met at 3:30 the following morning to conduct the AWTS sampling. The inspector verified the location of the sampling point and witnessed the sample at about 4:00.

While docking, the inspector visited the outer decks to look for sheens (there were none). The inspector departed the ship at 6:15.

Additional Comments:

None.

SECTION 6: FOLLOW-UP

Compliance Assistance Items

None.

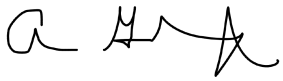
Signature	
Inspector – Annie Goodenough Credential Number: 353741 Phone: (907) 465-5276 E-mail: annie.goodenough@alaska.gov **Reviewed By** – Ben Eisenstein Credential Number: R-598 Phone: (907) 465-5161 E-mail: ben.eisenstein@alaska.gov	 Date: 9/4/2025  Date: 9/4/2025

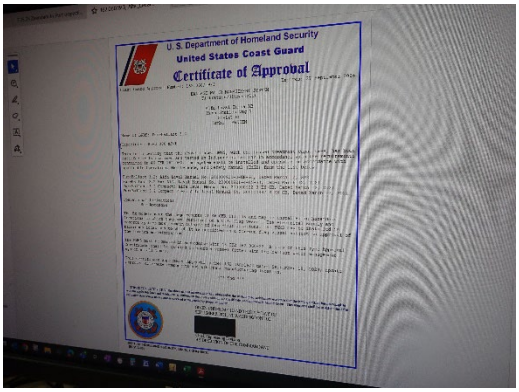
Photo Addendum	
Photo 01	**Photo 02**
	
Zaandam CT dock, Juneau starboard side	USCG Ballast water approval

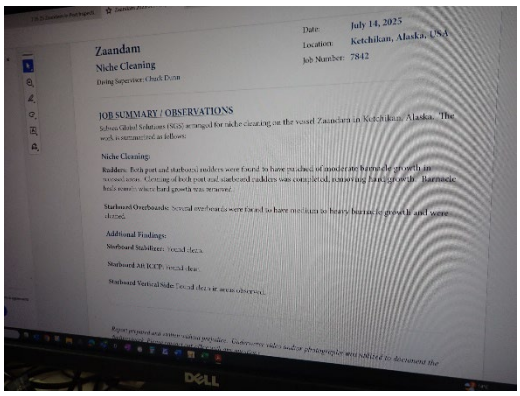
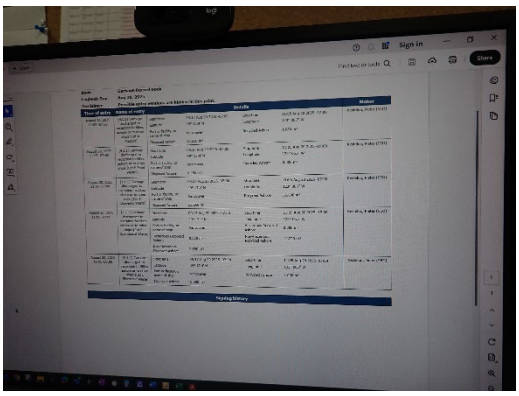
Photo 03	Photo 04
	
Niche cleaning July 14, 2025	NAPA Garbage Record Book

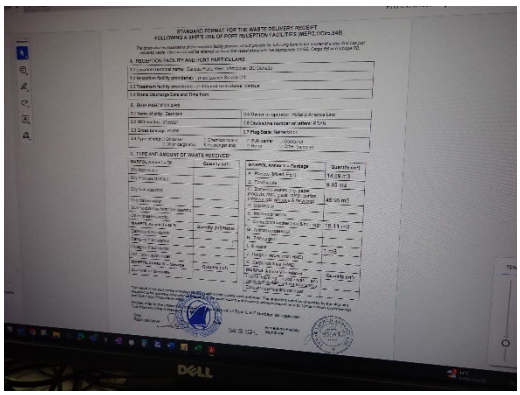
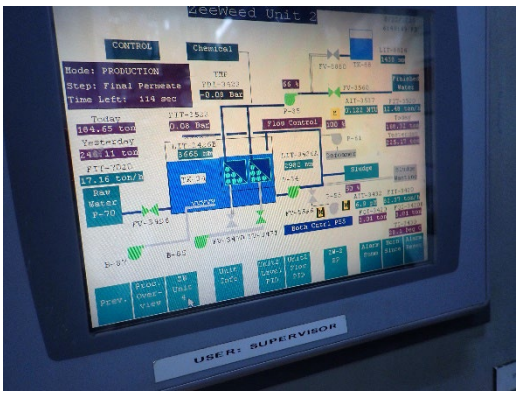
Photo 05	Photo 06
	
Tymac receipt 8/20/25	AWTS local control panel

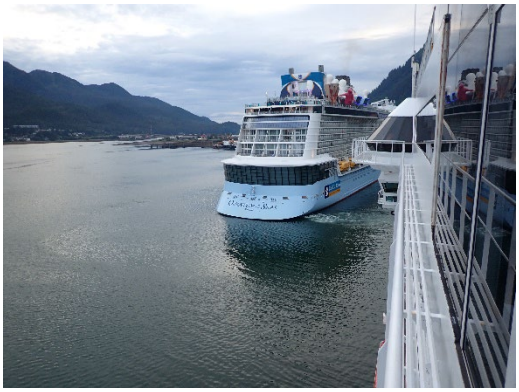
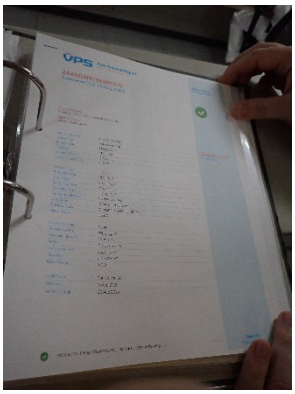
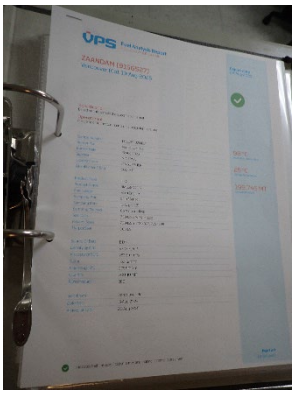
Photo Addendum	
Photo 07	**Photo 08**
	
AWTS Alarm panel	Quantum of the Seas underway from Marine Park

Photo 09	**Photo 10**
	
AE Sampler	Environmental permissions screen

Photo 11	**Photo 12**
	
Vancouver 8/13/25 250MT 0.0007% sulfur	Vancouver 8/13/25 200MT 1.6200% sulfur