THE STATE of ALASKA
GOVERNOR BILL WALKER

Department of Environmental Conservation

DIVISION OF WATER
Commercial Passenger Vessel Environmental Compliance
410 Willoughby Ave, Ste 303
PO Box 111800
Juneau, Alaska 99811-1800
Main: 907-465-5300
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www.dec.alaska.gov

April 27, 2016

Kelly W. Clark
Holland America Group
300 Elliot Avenue West
Seattle, WA 98119

ADEC File Number 920.45.054
Re: **Stationary Authorization to Discharge 2013DB0004-0022, Maasdam**

Dear Ms. Clark:

The Alaska Department of Environmental Conservation (DEC) authorizes operation of the *Maasdam* under the Large Commercial Passenger Vessel Wastewater Discharge General Permit No 2013DB0004 (hereinafter 2014 GP), and has issued the revised Authorization 2013DB0004-0022.

DEC reviewed the Notice of Intent (NOI) that Holland America Group submitted on March 23rd, 2016. Based upon modeling using composite sample data, DEC authorized the *Maasdam* for only underway discharge with the option of applying for stationary discharge if sample data was submitted. DEC reviewed out of state sample data submitted after the authorization was issued and determined that the system effluent samples received were comparable to other Zenon systems. The results of the revised CORMIX modeling indicate that the vessel's stationary discharge would meet ammonia water quality criteria at the boundary of the stationary mixing zone.

DEC will reevaluate the authorization when sufficient sample results are obtained in Alaska or if any results indicate concern with impacts on water quality.

Operators of the *Maasdam* must collect samples and meet the effluent limits found in Tables 4, 6, and 7 of the 2014 GP. All other permit conditions and deadlines must be met. Any changes made to the wastewater treatment installation or sampling port must be reported in an updated Vessel Specific Sampling Plan prior to sampling.

Any person who disagrees with this decision may request an adjudicatory hearing in accordance with 18 AAC 15.195 - 18 AAC 15.340 or an informal review by the Division Director in accordance with 18 AAC 15.185. Informal review requests must be delivered to the Director of Water, 410 Willoughby Ave., Suite 303, P.O. Box 111800, Juneau, Alaska 99811-1800, within 15 days of the date of the permit decision. Adjudicatory hearing requests must be delivered to the Commissioner of the Department of Environmental Conservation, 410 Willoughby Ave., Suite 303, P.O. Box 111800, Juneau, Alaska 99811-1800, within 30 days from the date of the permit decision. If a hearing is not requested within 30 days, the right to appeal is waived.

If you have any technical questions concerning this authorization, please contact me at ben.white@alaska.gov or (907) 465-5320.

Sincerely,

Ben White
CPVEC (Cruise Ship) Program Manager

Enclosure: Authorization 2013DB0004-0022

AUTHORIZATION TO DISCHARGE

Alaska Department of
Environmental
Conservation
Division of Water
CPVEC Program

AUTHORIZATION TO DISCHARGE UNDER THE LARGE COMMERCIAL PASSENGER VESSEL WASTEWATER DISCHARGE GENERAL PERMIT NO. 2013DB0004

FACILITY ASSIGNED AUTHORIZATION NUMBER: 2013DB0004-0022

***GENERAL PERMIT NUMBER:* 2013DB0004**
See this General Permit for all permit requirements.

The following facility is authorized to discharge in accordance with the terms of the State of Alaska General Permit 2013DB0004 and any specific requirements listed in this authorization.

The revised authorization effective date is **April 27, 2016.**

The authorization to discharge shall expire at midnight, **on the expiration or termination date of General Permit 2013DB0004 (August 28, 2019)** unless notified by the Department.

The permittee must reapply for an authorization when the Department issues a General Permit that replaces 2013DB0004 if the permittee intends to continue operations and discharges from the facility.

SECTION 1 – RESPONSIBLE PARTY INFORMATION	
Issued to:	Holland America Group

SECTION 2 – FACILITY INFORMATION	
ADEC File Number:	920.45.054
Authorization Number	*2013DB0004-0022 Rev1*
Facility Name:	*Maasdam*
Type of Facility	Large Commercial Passenger Vessel
Type of Wastewater Authorized for Discharge:	Treated mixed, black and greywater.
Type of Wastewater Treatment System:	"Zenon" AWTS ZW-IMBR-ST-5881-800
Type of Authorization:	Authorized for stationary discharge at speeds of less than 6 knots and underway discharge of wastewater treated through a Zenon wastewater treatment system configuration as approved by the Department in the approved Vessel Specific Sampling Plan.

SECTION 3 – REGULATED DISCHARGE INFORMATION – EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS	
Effluent Compliance Point:	Wastewater effluent sampling port(s) identified in the Department approved Vessel Specific Sampling Plan.
Effluent Limitations	Table 3 of the General Permit for discharges underway at speeds greater than 6 knots. Table 4 of the General Permit for discharges while stationary or at speeds less than 6 knots.
Special Conditions:	N/A
Monitoring Requirements	Table 5 and 6 of the General Permit including Receiving Water Monitoring, and WET testing in 2017, and any other applicable monitoring requirements in the General Permit.
Discharge Monitoring Report (DMR)	The *Maasdam* must submit a monthly DMR with effluent limits that is available on the Department's website: (http://dec.alaska.gov/water/cruise_ships/gp/2014gp.html) or on a similar form approved by the Department.

SECTION 4 – RECEIVING AREA INFORMATION-RECEIVING WATER	
Receiving Area Name:	Marine waters of the state of Alaska as defined in the General Permit
Underway Mixing Zone Description:	63 meters in length, 5 meters in width, and a depth from the water surface to the depth the discharge port is below the water surface plus one meter. The shape of the mixing zone is an elongated rectangle that extends from the discharge port towards the stern of the ship.
Stationary Mixing Zone Description:	N/A
Skagway Discharge at Ore or Broadway Docks	N/A

SECTION 5 – ADDITIONAL TERMS AND CONDITIONS (GP 4.3.2)	
Modeling	The Department shall verify the CORMIX modeling with regard to meeting the stationary mixing zone requirements when ten sample results are submitted or at the end of 2016.

If you have any technical questions regarding this authorization or the requirements of the general permit, please contact the Cruise Program Manager at (907) 465-5320.

SECTION 6 – CERTIFICATION/SIGNATURE

Edward E. White
Signature

4/27/16
Date

Edward E White
Printed Name

EPS III, CPVEC ADEC
Title

NOTICE OF INTENT FORM

Notice of Intent to be covered under the Wastewater General Permit 2013DB0004 for Large Commercial Passenger Vessels Operating in Alaska (See Sections 2 and 3 of the permit.)	
Submission of this document constitutes a request that certain discharges into marine waters of the state resulting from the operation of the large commercial passenger vessels identified herein be authorized under General Permit 2013-DB0004.	
Vessel Owner Information	
Who is the main point of contact for the vessel? (e.g. owner, operator, or Alaska Agent): **Kelly W. Clark**	
Vessel Owner's Business Name: **HAL Nederland N.V.**	
Mailing Address: **300 Elliott Avenue West** **Seattle, WA 98119**	Phone: **206.626.8314**
Representative:	**Email:KClark@HollandAmericaGroup.com**
Vessel Owner's or Operator's Alaska Agent Information	
Company Name: **Cruise Line Agencies of AK Southeast**	
Mailing Address: **55 Schoenbar Court, #101** **Ketchikan, AK 99901**	Phone: **907.617.1213**
Representative: **Rick Erickson**	Email: **Ketchikan@claalaska.com**
Vessel Operator's Business Name if Different From the Owner's Business Name	
Vessel Operator's Business Name: **Holland America Line N.V.**	
Mailing Address: **300 Elliott Avenue West** **Seattle, WA 98119**	Phone: **206.626.8314**
Representative: **Kelly W. Clark**	Email: **KClark@HollandAmericaGroup.com**

Vessel Information (Y/N)	
Are you seeking authorization to discharge with a mixing zone?	**Y**
Are you seeking authorization to discharge while moving at 6 knots or greater?	**N**
Are you seeking authorization to discharge while moving at under 6 knots?	**Y**
Are you seeking authorization to discharge while in Skagway at Broadway or Ore Docks?	**Y**

If the permittee is seeking authorization which includes a mixing zone, attach (may be emailed separately) a drawing to scale that indicates the length of the vessel and the locations of all wastewater effluent penetration points (ports) on the hull.	
Vessel Name:	**MAASDAM**
Vessel IMO Number:	**8919257**
Vessel Gross Tonnage:	**55,575**
Port of Registry:	**Netherlands**
Maximum Passenger Capacity per Voyage:	**1258**
Maximum Crew Capacity per Voyage:	**580**
Vessel Draft[1]:	**a)7.7 b)7.7** **a)7.5 b)7.5**
Vessel Length in Meters at Waterline[2]:	**193.07m**

Vessel Tracking	
Method of submitting hourly vessel tracking information while in Alaskan waters (Marine Exchange of Alaska AIS or other Department approved method):	
Name, physical address, and mailing addresses of the service:	**Marine Exchange of Alaska** **1000 Harbor Way Suite 204** **Juneau, AK 99801**
Contact's name, email address, and phone number:	**Brett Farrell, Assistant Director** **brettfarrell@mxak.org** **907.463.4640**

[1] Vessel draft under a) loaded condition for Alaska operations (bunkers / waste water storage etc.) and b) under light ship conditions for Alaska operations (bunkers empty / no waste water storage etc.)
[2] Length of Waterline (LWL) under normal load in standard Alaska conditions.

Discharge Port Characteristics **Note: If there is more than one discharge port attach a sheet with the characteristics below for each AWTS Port. If more than one discharge pump attach sheet with capacity for each.**			
Discharge Port Name[3]:	**Port "J"**	Location (Starboard/Port):	**Port**
Discharge Port Internal Diameter:	**100mm**	Discharge Port Centerline Vertical Distance from Keel:	**2.5m**
Discharge Port Distance from Bow at Waterline (normal load):	**100.8m**	Discharge Port Centerline Vertical Distance from Waterline (normal load)[4]:	**5m**
Discharge Port shape (round, oval, square):	**Round**	Discharge Port Pump Capacity (m^3/hr) for each Pump[5]:	**25m^3/hr**
Discharge Port Vertical Angle Relative to Waterline[6]:	**90°**	Discharge Port Horizontal Angle Relative to Centerline[7]:	**90°**

Wastewater Discharge Information		
Estimates of the average and maximum volume of the wastewater to be discharged per 24 hour period (in cubic meters), and the beginning and ending dates between which discharges may occur the first year of the permit;	Average:	**458m^3**
	Maximum:	**660m^3**
	Startup Date:	**24MAY16**
	Ending date:	**24SEP16**

[3] Name or identification as used in VSSP and Waste Water Discharge Logbook.
[4] Vertical distance from the vertical centerline of the discharge port relative to the standard (loaded) conditions waterline.
[5] Treated wastewater discharge pump for the named discharge port. For vessels with variable speed / capacity pumps identify the effective discharge capacities. For vessels with more than one pump simultaneously operated identify the total effective pump capacities.
[6] Parallel with the Vertical Longitudinal Center Plane orientation of the hull orientation angle defined as the angle in degrees between the horizontally perpendicular projected line originating from the vertical longitudinal center plane of the hull self to the center of the discharge port, and the projected perpendicular line originating from the port center self (face) vertically directed to the center plane of the hull (Y-Y axis).
[7] Parallel with the Vertical Longitudinal Center Plane orientation of the hull orientation angle defined as the angle in degrees between the horizontally perpendicular projected line originating from the vertical longitudinal center plane of the hull self to the center of the discharge port, and the projected perpendicular line originating from the port center self (face) horizontally directed to the vertical center plane of the hull (X-X axis).

The type, number, and combined maximum design capacity in cubic meters per 24 hour period of all advanced wastewater treatment systems (AWTS) onboard;	Type (s) (including manufacturer, model name, model number, and year built):	**ZENON Environmental Inc.** **ZW-IMBR-ST-5881-800** **Type I MSD Zenon installation. The Zenon system is an amalgamation of the ZenoGem and ZeeWeed technologies. The ZenoGem system consists of a suspended growth biological reactor. The ZeeWeed system is an ultrafiltration membrane system implemented using 64 ZeeWeed ZW-500B modules arranged in 16 cassettes. The system includes a final stage UV sterilization filter.**
	Number of AWTS:	**One Zenon installation consisting of two identical parallel processes. These processes are designated Train 1 and Train 2.**
	Combined design capacity:	**Total system capacity 660m^3/day effluent from combined black and gray water influent.**
Type(s) of sewage treatment and system capacity in cubic meters per 24 hour period;	Type (s) (including manufacturer, model name, model number, and year built): **Zenon Environmental Inc. Advanced Black and Gray Water Treatment System consisting of the ZenoGem and ZeeWeed processes. The system includes a final stage UV sterilization filter. Total system capacity 660m^3/day effluent from combined black and gray water influent.** Combined design capacity:**660m^3/day**	
Type(s) of graywater treatment and system capacity in cubic meters per 24 hour period;	Type (s) (including manufacturer, model name, model number, and year built): **Zenon Environmental Inc. Advanced Black and Gray Water Treatment System consisting of the ZenoGem and ZeeWeed processes. The system includes a final stage UV sterilization filter. Total system capacity 660m^3/day effluent from combined black and gray water influent.** Combined design capacity:**660m^3/day**	
Average volume of sewage generation per day in cubic meters;	Average **40 tons/day**	
Maximum volume of sewage generation per day in cubic meters;	Maximum **100 tons/day**	
Average graywater generation per day in cubic meters for the following sources;	Accommodations:**295m^3/day** Galley:**75m^3/day**	

	Laundry:**100m^3/day** Other (list types and volumes): **None**
Maximum graywater generation per day in cubic meters for the following sources;	Accommodations **Maximum 330m^3/day** Galley **Maximum 100m^3/day** Laundry **Maximum 120m^3/day** Other (list types and volumes): **None**

The method of handling and disposal of sludge and biosolids produced from the treatment of sewage and graywater.

Pre-treatment filtered inorganic solids are landed ashore.

Retained solids from bioreactor, known as biomass, are discharged outside 12NM.

Signature and Certification for NOI

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature of Responsible Corporate Officer	Printed Name **Kelly W. Clark**
Title/Company **Senior Vice President, Safety, Environmental & Regulatory Services**	Date **18MAR16**

Submit this Notice of Intent to:

Commercial Passenger Vessel Environmental Compliance Program
Division of Water
Alaska Dept. of Environmental Conservation
410 Willoughby Avenue, Suite 303
PO Box 111800
Juneau, AK 99811-1800