CROWLEY
People Who Know

Consolidated Additional Observations

This questionnaire combines all standard Additional Observation Questions in one condensed questionnaire.
1. SOx Emissions Controls
2. Ballast Water Project
3. Combustion Source Project
4. Food Waste Project
5. Sea Intake Project

Findings can be reported in the spaces provided for each item; feel free to use additional space for notes and information. Sketches, diagrams, photos of handwritten notes, or copies of schematics are welcome.

Several questions are checks on previous Additional Observations, check these against the previous observations. If a ship is required to have an additional observation project on a section below, skip the section below. For example if a combustion source project is required leave the section in this project blank.

A: General Information

Report Start Date:	May 7, 2018
Ocean Ranger starting report:	steven.chouinard
Ship Name:	Holland Nieuw Amsterdam
Ship Code:	HNI
Is this a revision of a previous report (Y/N)?	No

1: SOx Emissions Controls

1.1 Describe the SECA compliance plan.	Amendment set by IMO designating specific portions of North America to abide by stringent emissions controls. There are tiers of NOx and fuel sulfur controls to be completed by deadlines.
1.1 Completed by:	Steven Chouinard (steven.chouinard)
1.2 How does the vessel control SOX emissions in the ECA? Provide description. If the vessel used low sulfur fuels in AK describe the fuel switches and which combustion sources are operated on low fuel sulfur, and when.	In ECA, Engines with EGCS are used to control SOX emissions. In VGP engines equipped with EGCS stay on HFO and DG 3 & 4 stay in MGO mode.
1.2 Completed by:	Steven Chouinard (steven.chouinard)
1.3 Is the vessel operating or installing an exhaust gas scrubber system in the 2018 Alaska Cruise Season? If yes, complete section 1A. Otherwise skip to section 2.	Yes

1.a: SOx Emissions Controls

1.4 Which combustion sources are coupled with the EGCS system?	DG 1,2,5 & 6.
1.4 Completed by:	Steven Chouinard (steven.chouinard)
1.5 EGCS units make, number, model, locations, fuel limitations (sulfur %).	Make: Ecospray, Number: EGCS #1 (17-128-MAR-SC-100), EGCS #2 (14-077-APCW-0100), EGCS #5 (14-077-APCW-0010), EGCS #6 (14-077-APCW-0200) Model: ECO-DeSOx Location: EGCS 1 (Aft casing Dk 6), EGCS 2 (Aft casing Dk 13), EGCS 5 (Fed casing Dk 13), EGCS 6 (Fwd casing Dk 5) Fuel Limitations: 3.5% (max.)
1.5 Completed by:	Steven Chouinard (steven.chouinard)
1.6 Scrubber type (closed, reagent cycle, combination or hybrid open-loop effluent to seawater)?	Open-loop sea water DESOX absorption system.
1.6 Completed by:	Steven Chouinard (steven.chouinard)

1.7 System status (operational, commissioning, under construction)?	All operational.
1.7 Completed by:	Steven Chouinard (steven.chouinard)
1.8 Provide a process description and waste flow/chemicals used (Gaseous emissions, waste effluent, ash, spent reagents, etc.).	System is open loop and does not require any chemicals.
1.8 Completed by:	Steven Chouinard (steven.chouinard)
1.9 What scrubber process parameters are monitored (flow capacities, pH, other)?	pH, SO2/CO2 ratio, PAH, turbidity, rack flow.
1.9 Completed by:	Steven Chouinard (steven.chouinard)
1.10 For seawater intake/effluent, please provide port locations (PS/STB Frame number, etc.). Additional notes can include distance below waterline and angles.	EGCS #1 (PS auxiliary room D-deck frame 82-86, EGCS 2,5 & 6 (SB Incinerator room D-deck frame 86-90)
1.10 Completed by:	Steven Chouinard (steven.chouinard)

2: Ballast Water

2.1 Check the previous Additional Observation Reports (section 1.1) list of tanks used for Ballast Water storage. Including volumes and locations. List any changes.	1C with 316m3 and 2S with 303m3.
2.1 Completed by:	Steven Chouinard (steven.chouinard)
2.2 Are ballast water tanks used for wastewater storage?	Yes. Some are included as part of BWMP.
2.2 Completed by:	Steven Chouinard (steven.chouinard)
2.3 Ballast Water system: brief description of the combined piping system if tanks used for both.	Not used for both.
2.3 Completed by:	Steven Chouinard (steven.chouinard)
2.4 Ballast Water treatment installation? If yes, describe operation/system specifics.	No
2.4 Completed by:	Steven Chouinard (steven.chouinard)
2.5 Ballast Water operations in AK waters (overboard intake/discharge, etc.)? Include the last date of ballast water discharges. Typically in the ballast water logs.	No ballast operations in AK and BC waters (last ballast operation was 041118.)
2.5 Completed by:	Steven Chouinard (steven.chouinard)

3: Combustion Sources

3.1 Are there any changes from the previous Additional Observation projects (Section 2.1) on the propulsion system question on brief description of propulsion and power systems used on board (Diesel direct/reduction gears/PTO's DE, FP, CPP Azipod, etc.)?	No
3.1 Completed by:	Steven Chouinard (steven.chouinard)
3.2 Are there any changes from the previous Additional Observation projects (Section 1.1) on the list of the combustion equipment used for Power/Propulsion (make/model/output)?	No
3.2 Completed by:	Steven Chouinard (steven.chouinard)
3.3 Are there any changes from the previous Additional Observation projects (section 3) on the incinerators make, model, fuel used, capacity?	No
3.3 Completed by:	Steven Chouinard (steven.chouinard)
3.4 Average Hotel power (kW) in port and underway?	6.5 M/W in port & 7.5 M/W underway.
3.4 Completed by:	Steven Chouinard (steven.chouinard)
3.5 Average fuel consumption in port and underway?	FO USAGE: one 24 hr. Day: In port for 9 hrs. the ship used 14m3, in 15 hrs. of underway: 76m3.
3.5 Completed by:	Steven Chouinard (steven.chouinard)

4: Food Waste Garbage Handling

4.1 How is food waste handled and disposed of?	Occurs outside 12 nm.

4.1 Completed by:	Steven Chouinard (steven.chouinard)
4.2 Average food waste production per day (kgs/day)?	Average around 150 tubs a day. (approx. 750kg.)
4.2 Completed by:	Steven Chouinard (steven.chouinard)
4.3 Is the food waste de-watered? If yes, provide dewatering volumes and handling information.	Yes, it goes to lifting tank then to storage tank (outside >12 nm overboard) around .5m3 a day average.
4.3 Completed by:	Steven Chouinard (steven.chouinard)
4.4 How are glass bottles, broken crockery, and ceramics handled?	Glass goes into shredder collected and offloaded to vendor. Crockery is collected and offloaded as scrap, ceramics is also offloaded.
4.4 Completed by:	Steven Chouinard (steven.chouinard)
4.5 How is food waste monitored and/or recorded?	Via the radar instruments on the food waste holding tank. Percentage is then factored into a volume and is recorded in the GRB. This is subsequently transferred into NAPA Log.
4.5 Completed by:	Steven Chouinard (steven.chouinard)

5: Sea Water Intakes

5.1 List all of the seawater intakes (chests); include the locations, frame, side (PS/SB) or compartment.	EGCS #1 - PS Fr 76, EGCS #2,5+6 - SB Fr. 95; Aft Cooling Water seachest PS + SB Fr. 107; Fwd Cooling Water seachest PS + SB Fr. 168.
5.1 Completed by:	Steven Chouinard (steven.chouinard)
5.2 List filtration systems for each intake. Describe how filter systems are maintained. What is the frequency of cleaning? Is this performed in Alaska?	Filters; cleaning and anti fouling system, every 2 months; yes.
5.2 Completed by:	Steven Chouinard (steven.chouinard)
5.3 How is debris and mud from filtration/strainers handled?	Offloaded as garbage.
5.3 Completed by:	Steven Chouinard (steven.chouinard)
5.4 Marine Growth Protection Systems in the sea intakes. Description of the control systems and information on checmicals if used.	Anti fouling system; MG, FE anodes; 1.8 Amp current on duty seachest filter; 0.4 A on standby seachest filter; no chemicals.
5.4 Completed by:	Steven Chouinard (steven.chouinard)
5.5 Hull cleaning in place in Alaska 2018?	No
5.5 Completed by:	Steven Chouinard (steven.chouinard)

6: General

6.1 Is vessel crew cooperative on this project?	Yes, very much.
6.1 Completed by:	Steven Chouinard (steven.chouinard)
6.2 Do you feel the vessel has a clear understanding of compliance requirements?	Yes
6.2 Completed by:	Steven Chouinard (steven.chouinard)
6.2 Completed by:	steven.chouinard

Z: Signature & Submit

Ocean Rangers contributing to this report:	Steven Chouinard (steven.chouinard)

Additional Observations
Ocean Ranger Signature: