



Alaska Department of Environmental Conservation

Division of Water

Cruise Ship Program

# 2011 Season Report

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## Ocean Ranger

9/6/2013



This report is a serial monograph. It is a standalone document and, at the same time, is the fourth in a series of seasonal reports going back to 2008. The report explains the efforts and results of the department's Ocean Ranger program and provides comparisons to previous years.

**Table of Contents**

**1. INTRODUCTION.....3**

**2. OCEAN RANGER PROGRAM OPERATIONS .....4**

**3. MONITORING.....6**

**4. DISCUSSION.....12**

**APPENDIX A. LINKS TO OCEAN RANGER DOCUMENTS AND WEBSITES.....14**

**APPENDIX B. ACRONYMS .....15**

  

Table 1 Findings from 2008 until 2011 .....8

Table 2 Report Statistics from 2008 until 2011 .....11

Table 3 2011 Daily Report Statistics .....12

## 1. INTRODUCTION

- a. The Commercial Passenger Vessel Environmental Compliance (Cruise Ship) Program, in the Department of Environmental Conservation (DEC) Division of Water, manages the Ocean Ranger program. Ocean Rangers are deployed on large commercial passenger vessels (cruise ships) as independent observers to monitor state and federal requirements for marine discharge and pollution, and to insure protection for passengers, crew, and residents at Alaskan ports from improper sanitation, health, and safety practices<sup>1</sup>. This is a report of Ocean Ranger activities for 2011.
- b. In August 2006, Alaskans passed Ballot Measure 2<sup>2</sup> into law. The law contained provisions for taxation, gambling, the sale of shore-side excursions, commercial passenger vessels environmental practices, and the Ocean Ranger program. The Cruise Ship Program implemented an Ocean Ranger pilot program in 2007, and has managed a full-scale program since 2008.



Figure 1: Ocean Rangers (CMS Photo)

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<sup>1</sup> See Alaska Statute AS 46.03.476 Ocean Rangers

<sup>2</sup> See [http://www.dec.state.ak.us/water/cruise\\_ships/Law\\_and\\_Regs/index.htm](http://www.dec.state.ak.us/water/cruise_ships/Law_and_Regs/index.htm)

## 2. OCEAN RANGER PROGRAM OPERATIONS

- a. CONTRACT. In 2011, DEC extended a multi-year contract (2008-2010) to Crowley Maritime Services (CMS) to implement the on-board Ocean Ranger program. The 2011 cruise ship season was the last season of operations under this contract. The 2011 amount of the contract with CMS was approximately \$2.4 million. CMS coordinated Ocean Ranger operations from their Juneau office.
- b. FUNDING. The Ocean Ranger fee paid by large cruise ships is the only funding source, and the fee funds only Ocean Ranger program activities. Each cruise ship paid a \$4 per-berth, per-voyage fee. Cruise ships paid \$3.5 million in Ocean Ranger fees.
- c. DEPLOYMENT SCHEDULE. The Cruise Ship Program approved the CMS deployment schedule for Ocean Rangers in March 2011. CMS and the Cruise Ship Program scheduled deployment to get the best prices and guaranteed cabins for Ocean Rangers.

(1) **Deployment Types.** The deployment schedule contained three types of deployments. Ocean Rangers:

- A. boarded cruise ships in Seattle or Vancouver and rode the cruise ship for the entire round trip voyage,;
- B. boarded in Alaska and departed in Alaska on a partial voyage, or
- C. conducted in-port inspections.

(2) **Selection Factors.** The Cruise Ship Program and CMS considered the following factors in deciding whether to have an Ocean Ranger conduct an in-port deployment versus a full voyage deployment:

- A. a ship's permitted wastewater discharge status in Alaska,
- B. a ship's compliance history,
- C. a ship's itinerary (e.g., few days in Alaska),
- D. availability of Ocean Rangers, and/or
- E. daily cabin costs.

(3) **Duty Rotation.** After one to four weeks, Ocean Rangers changed ships. This allowed them enough time to become familiar with each ship, yet not become complacent.

d. RECRUIT AND HIRE.

(1) **General.** Nationally, the pool of applicants was sufficient to fill the ranks. CMS hired applicants that held one of two qualifications.

- A. U.S. Coast Guard license as a Marine Engineer; or

- B. a degree in marine safety and environmental protection, or an equivalent course of study approved by the department, from an accredited maritime educational institution.
- (2) **Alaska Recruitment.** Five Alaskans became Ocean Rangers in 2011. This was an increase from one in 2008, four in 2009, and five in 2010. Qualified Alaskan applicants had hiring and deployment preference over non-Alaskan applicants. CMS actively sought and recruited qualified Alaskan candidates; however, few marine engineers reside in Alaska, and many engineers work worldwide, not regionally. The Ocean Ranger program competes with other maritime industries across the globe for the few Alaskan applicants available. Recruiting activities included:
- A. distribution of Ocean Ranger job packages to the State Legislature and other entities such as Chambers of Commerce to attract Alaskan candidates,
  - B. job postings on the Alaska Job Network,
  - C. direct calling and mailing,
  - D. career fair presentations,
  - E. establishment of a recruiting information website,
  - F. notice of the job openings on DEC websites, and
  - G. a toll free telephone number.
- e. **TRAINING.** Because marine engineers work on a wide variety of vessel types and sizes, it is unlikely that each trainee would have developed expertise or maintained currency in every Ocean Ranger monitoring category. Additionally, Ocean Rangers must learn state and contractor requirements.
- (1) **Training Development.** The Cruise Ship Program, CMS, and the American Maritime Officer's Union (AMO) cooperatively developed and delivered an Ocean Ranger training course.
  - (2) **Training Delivered in 2011.** Between April 13 and April 18, CMS conducted an Ocean Ranger training course at the AMO Simulation, Training, Assessment & Research (STAR) Center in Dania Beach, Florida. The 5-day course included multiple training modules and a one-day ship visit onboard a Royal Caribbean cruise ship moored in nearby Fort Lauderdale. Two Cruise Ship Program staff members instructed training modules and evaluated the training. Representatives from wastewater treatment manufacturers Hamworthy and Rochem, and cruise ship operator Norwegian Cruise Line delivered presentations. DEC Certified all 18 trainees and 17 deployed as Ocean Rangers.

- f. OUTFITTING. CMS outfitted Ocean Rangers between certification and initial deployment. Ocean Ranger outfit included personal gear, communications devices, guidance documents, and sampling kits.
- (1) **Personal Gear.** A uniform, coveralls, hand lamp, and safety gear.
  - (2) **Communications.** Communication gear included a mobile phone and netbook computer.
  - (3) **Sampling Kits.** Ocean Rangers placed wastewater sampling kits aboard each ship so ships' crews could take samples if necessary. The kits included instructions and chain of custody forms for ship crew use. No events in 2011 warranted the use of these kits.

### 3. MONITORING

- a. GENERAL. Ocean Rangers monitor for compliance with state and federal environmental laws and regulations. Guidance documents produced by DEC and training provided the basis for monitoring. Ocean Rangers recorded their observations on reports described in 3.c, below.
- b. GUIDANCE DOCUMENTS. The Cruise Ship Program and CMS created and maintained documents that gave Ocean Rangers standard and consistent guidance. Changes from prior years included adding background information and regulatory citations, removing monitoring with no federal or state regulatory citation, moving items from the daily to the seasonal report, and removing items based only on international standards or voluntary agreement.
- (1) **Guidebook.** The Guidebook has detailed instructions, monitoring requirements, system operations, laws and regulations.
  - (2) **Daily Report Job-Aid.** The Job-Aid briefly lists each activity or piece of equipment that Ocean Rangers monitor. The Job Aid format was new in 2011. The Job Aid replaced an Ocean Ranger checklist in the daily report format.
  - (3) **Vessel Specific Notebook.** The notebooks had specific information helpful to Ocean Rangers onboard each cruise ship, such as vessel specific plans and discharge permit authorizations.
- c. REPORTS TO DEC. Ocean Rangers submitted reports to the CMS project manager for review and submission to the Cruise Ship Program. The CMS project manager submitted reports flagged with potentially non-compliant conditions immediately and non-flagged reports within three days of monitoring. Report types submitted by Ocean Rangers included:
- (1) **Daily Report.** Ocean Rangers submitted a Daily Report for each day onboard a cruise ship in Alaskan waters, whether underway or in port.
  - (2) **Incident Report.** Incident Reports were used to document non-compliance not reported in the Daily Report. Ocean Rangers also

submitted Incident Reports to inform the Cruise Ship Program about issues that did not fit into another report type or to ask questions to DEC.

- (3) **Departure Report.** Ocean Rangers completed departure reports when leaving a cruise ship at the end of a voyage. It included notes and information that would be helpful to the next Ocean Ranger onboard.
  - (4) **Seasonal Report.** Ocean Rangers completed the Seasonal Report during the first Ocean Ranger voyage of the season. It included items that were unlikely to change during the season.
  - (5) **Oil Spill Report.** The DEC Spill Prevention and Response Division (SPAR) created the Oil Spill report so that Ocean Rangers can report spills and sheens in a complete and consistent format.
  - (6) **Additional Observations and Verification Project Report.** Ocean Ranger Verification Projects were designed to obtain information for environmental systems, ambiguous conditions, and environmental compliance.
- d. CRUISE SHIP PROGRAM ACTIONS ON FINDINGS. When Ocean Rangers reported potentially non-compliant conditions, the Cruise Ship Program performed the following actions.
- (1) **Operator Notification.** In all cases, the Cruise Ship Program immediately reported the non-compliance to the cruise ship owner or operator. Standard procedure required Ocean Rangers to inform a cruise ship's crew of potentially non-compliant conditions. In the case of an actual non-compliant condition, the Cruise Ship Program worked with the owner or operator to stop or correct the condition.
  - (2) **Notification of Other Agencies.** The Cruise Ship Program promptly notified appropriate state and federal agencies for potentially non-compliant conditions that fell outside of the jurisdiction of the Cruise Ship Program. The Cruise Ship Program reported potentially non-compliant findings to:
    - A. Safety. U.S. Coast Guard Sector Juneau;
    - B. Health and Sanitation. U.S. Centers for Disease Control and Prevention, and the appropriate State of Alaska and local health agencies;
    - C. Vessel General Permit (VGP). U.S. Environmental Protection Agency (EPA).
  - (3) **Regulation Research.** The Cruise Ship Program researched the laws, regulations, permits, and required plan terms and conditions in the context of an Ocean Ranger finding to determine compliance; decided the

appropriate compliance assistance, administrative, or compliance action; and then proceeded as appropriate.

- e. **FINDINGS.** In 2011 Ocean Rangers reported a variety of findings, most of which involved minor items such as paperwork errors or items that, if left unattended, could eventually result in a safety problem or spill. Ocean Rangers reported on or verified several wastewater and small oil spills into Alaska waters. In 2012 the Cruise Ship program will continue to improve training, documentation, and communications as a result of lessons learned in 2011. Table 1 shows the number of findings in each area and a comparison to previous years.

**Table 1. Types and Number of Ocean Ranger Findings from 2008 until 2011**

Finding Type	2011	2010	2009	2008
Oil Pollution	32	62	87	74
Safety	12	25	20	7
Health	15	31	36	13
Wastewater	16	42	22	19
Other Waste	14	19	12	8
Air Pollution	7	34	27	N/A
EPA Vessel General Permit	10	8	26	N/A
Boiler Blow-down	0	2	4	5
<b>TOTAL</b>	<b>106</b>	<b>223</b>	<b>234</b>	<b>126</b>

- (1) **Oil Pollution Findings.** Ocean Rangers reported 32 oil pollution related findings. Only 13 of these findings were potentially non-compliant conditions found on the cruise ships. The remaining 42 findings were either not attributable to the cruise ships or were conditions that, if left unattended, may have evolved into non-compliant conditions. Only Ocean Ranger reported findings were included in this report. SPAR may have received additional reports from non-Ocean Ranger sources since cruise ships must report their spills to SPAR and the U.S. Coast Guard. Notifying the Ocean Rangers does not satisfy the legal reporting requirements. State law does not require cruise ships to report pollution incidents not caused by them, although they often do.
- A. **Oil from Vessel.** Ocean Rangers reported seven cases where the petroleum products from a cruise ship entered Alaskan waters. Faulty propulsion equipment, leaking seals, or ruptured hydraulic lines caused these conditions.
- B. **Miscellaneous Oil.** Ocean Ranger reported four findings for non-pollution oil related matters. These findings included oil records, and operation of oil water separators.
- C. **Internal Oil Leak.** Ocean Rangers reported 11 cases where oil (including fuel) was leaking internally on the ship, but not into Alaskan waters. Some cruise ships had oil in bilges, oil lost from tanks or machinery and not recovered, leaking fuel pipes to



combustion equipment, and internal fuel spills. These items were not compliance items, but may have developed into a safety, health or pollution hazards if left unattended.

- D. Harbor Oil Sheens Ocean Rangers reported 6 non-traceable pollution incidents, or “mystery” sheens. These were oil pollution incidents that an Ocean Ranger observed but could not be attributed to a source. Some of these sheens may have remained unreported without the Ocean Rangers, particularly in remote locations.
- E. Port Operations and Tenders Oil. Ocean Ranger reported four oil pollution cases related to port operations, but not attributable to a cruise ship. These cases were from tenders to transport passengers to shore, and forklifts on docks.
- (2) **Safety Findings.** Ocean Rangers reported 12 potential safety findings. Findings included power loss, crewmembers not using adequate safety gear, internal fuel leaks or drips, and trip hazards.
- (3) **Health Findings.** Ocean Rangers reported 15 potential health findings. Most findings related to potable water connections between the cruise ship and public water supplies (hose and connector sanitation items). The findings also included potential norovirus occurrences.
- (4) **Wastewater Findings.** Ocean Ranger reported 16 wastewater findings. Ocean Rangers reported several vessel specific sampling plan (VSSP) inaccuracies including an undocumented wastewater stream into an Advanced Wastewater Treatment System and inaccurate storage tank identification. Inaccurate tank identification did not appear to compromise effluent quality however tank identification discrepancies may have been a contributing factor for accidental discharges in prior seasons. Inaccurate storage tank identification was a recurring problem from previous years. Several wastewater discharge logs did not meet state of Alaska regulatory requirements.
- (5) **Other Waste Findings.** Ocean Rangers reported 14 potential other-waste findings. These included objects dropped into the water, such as plastic gear, cameras, and drops of paint into the water.
- (6) **Air Pollution Findings.** Ocean Rangers reported 7 air pollution or opacity findings. Ocean Rangers also assisted the Cruise Ship Program with researching cruise ship self-reported opacity events. Ocean Rangers are not certified EPA Reference Method 9 opacity readers and could not perform valid opacity readings. However, marine engineers understand “excessive smoke” conditions and receive training on opacity regulatory requirements. The Cruise Ship Program has EPA Method 9 certified contractors and staff. Vessel self-reporting and ultimately compliance may improve with Ocean Rangers helping to identify and report heavy smoke that may otherwise go unnoticed by cruise ship crews.

- (7) **EPA Vessel General Permit Findings.** EPA issued a NPDES Vessel General Permit on December 18, 2008<sup>3</sup>. The VGP contains federal terms and conditions that apply to cruise ships. Ocean Rangers reported ten VGP items, including five accidental discharge of pool and spa water in Alaskan waters in 2011. Concerns about the release of pool water and spa water into Alaskan waters included a possible exceedance of Alaskan water quality standards (such as pH and chlorine) and the potential release of pathogens into surrounding waters without proper disinfection.
  - (8) **Special Projects.** Ship crews responded well to the projects. The verification projects increased the Cruise Ship Program's understanding of shipboard systems and the status of environmental operations. Each verification project took about three hours. Verification Projects included:
    - A. Vessel Specific Sampling Plan (VSSP) Verification, and
    - B. New and Modified Wastewater Treatment Systems Information
- f. OCEAN RANGER ACCESS 2011. Access problems include events where Ocean Ranger monitoring is prevented, or avoidably delayed. Ocean Rangers reported problems regarding access to the areas of cruise ships where they were required to monitor. Ocean Rangers resolved most problems, with occasional CMS or Cruise Ship Program intervention. All delays cost the Cruise Ship Program, Ocean Rangers, and the vessel operator's time and effort to resolve. These issues caused Ocean Ranger down-time and reduce compliance verification monitoring. The Cruise Ship Program will continue to inform cruise ship owners or operators of these problems in order to reduce future access problems. CMS monitored for access problems during the cruise season. 2011 access problems included:
- (1) multiple boarding delays,
  - (2) delays caused by incomplete departure paperwork,
  - (3) delayed returns of Ocean Ranger passports,
  - (4) delays caused by incorrect onboard billing,
  - (5) delayed monitoring caused by cabins not being clean or not being available at time of boarding,
  - (6) restricted times for access to engine rooms or to crewmembers that could answer questions or show documentation, and
  - (7) restricted times for access to other monitoring areas such as document storage locations.

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<sup>3</sup> EPA Vessel General Permit webpage is :[http://cfpub.epa.gov/npdes/home.cfm?program\\_id=350](http://cfpub.epa.gov/npdes/home.cfm?program_id=350)

g. MONITORING STATISTICS

- (1) Out of 443 voyages, Ocean Rangers monitored 271 voyages (61%). In port inspections were used to provide Ocean Ranger or the Cruise Ship Program staff coverage for an additional 131 voyages (30%). Table 2 shows the numbers of the different reports that Ocean Rangers submitted to DEC, and a year-by-year comparison.

**Table 2. Ocean Ranger Report Statistics from 2008 until 2011**

Report Type	Total Number of Reports			
	2011	2010	2009	2008
Seasonal <sup>1</sup>	26	25	NR	NR
Daily ( <i>Underway + In port</i> )	1,426	1,884	2,272	2,180
<i>Underway</i>	<b>1,195</b>	<b>1,777</b>	<b>2,171</b>	<b>2,039</b>
<i>In port</i>	<b>231</b>	<b>107</b>	<b>101</b>	<b>141</b>
Incident	43	13 <sup>2</sup>	8	100
Oil Sheen	17	33 <sup>2</sup>	72	NR
Departure	163	100	140	131
Verification	22	101	143	NR
Rescheduled <sup>3</sup>	24	5	9	39

Notes:

<sup>1</sup>Ocean Rangers complete Seasonal Reports for cruise ships that conduct more than one Alaskan voyage. In 2008 and 2009 seasonal reports were embedded into, and indistinguishable from daily reports.

<sup>2</sup>One oil related item was reported to SPAR as an incident report.

<sup>3</sup>Includes missed reports and lost reports prior to 2010.

NR – No Reports, the reports do not yet exist or had been discontinued. Oil Sheen reports were implemented in 2009. Until 2009 oil sheens were reported on incident reports.

- (2) There were 24 Daily Reports rescheduled or missed in 2011. Most were rescheduled in advance. See Deployment Schedule in Appendix A for details.
- (3) There was a decrease in potential non-compliance items compared to 2010 (117 less items). This decrease was likely the result of a decrease in the total number of reporting days, a much more detailed job aid to replace the checklist, and a reduction in the number of items checked in the job aid when voluntary health practices were removed.
- (4) There was a large decrease in the number of harbor oil sheens reported. The cause of this is not known.
- (5) Table 3 shows information for each cruise ship. It shows how many days each ship operated in Alaskan compared to the Ocean Ranger coverage, the number of days that an Ocean Ranger monitored the ship, and a comparison between the days monitored while the vessel was underway on a voyage and the days monitored while the vessel was moored or anchored in port.

**Table 3. 2011 Daily Report Statistics**

Vessel Name	Voyages	RD	%	DR	Daily Reports by Month					VDR	IDR
					May	Jun	Jul	Aug	Sep		
<i>Carnival Spirit</i>	19	79	66%	52	7	9	16	13	7	45	7
<i>Crystal Symphony</i>	9	43	65%	28	7	5	9	7	0	15	13
<i>Century</i>	18	73	85%	62	12	10	16	14	3	45	10
<i>Infinity</i>	19	61	77%	47	6	8	11	12	10	43	4
<i>Millennium</i>	17	92	84%	77	5	18	15	14	10	61	1
<i>Wonder</i>	18	73	75%	55	11	20	23	16	7	73	4
<i>Amsterdam</i>	11	94	56%	53	9	9	13	13	9	49	4
<i>Oosterdam</i>	20	80	55%	44	4	9	11	10	10	39	5
<i>Statendam</i>	18	99	98%	97	8	24	23	23	19	97	0
<i>Volendam</i>	17	63	79%	50	4	9	19	14	4	50	0
<i>Westerdam</i>	20	80	73%	58	8	14	9	15	12	54	4
<i>Zaandam</i>	19	102	72%	73	9	20	13	15	16	67	6
<i>Zuiderdam</i>	19	75	83%	62	4	15	15	18	10	51	11
<i>Norwegian Pearl</i>	20	79	58%	46	5	14	10	7	10	32	14
<i>Norwegian Star</i>	20	59	68%	40	3	7	10	14	6	30	10
<i>Arcadia</i>	1	9	11%	1	1						1
<i>Regatta</i>	9	82	39%	32	2	10	12	5	3	17	15
<i>Coral Princess</i>	18	98	61%	60	2	9	22	14	13	48	12
<i>Diamond Princess</i>	20	100	78%	78	3	23	23	17	12	74	4
<i>Golden Princess</i>	19	75	80%	60	4	17	7	19	13	49	11
<i>Island Princess</i>	18	99	82%	81	2	22	25	25	7	77	4
<i>Sapphire Princess</i>	18	54	81%	44	4	9	13	11	7	39	5
<i>Sea Princess</i>	13	52	65%	34	1	7	10	10	6	25	9
<i>Seven Seas Navigator</i>	16	89	36%	32	7	5	8	10	2	5	27
<i>Radiance of the Seas</i>	14	93	80%	74	0	16	25	25	8	72	2
<i>Rhapsody of the Seas</i>	17	53	72%	38	8	5	11	10	4	31	7
<i>Silver Shadow</i>	16	89	54%	48	7	10	10	19	2	7	41
<b>OVERALL</b>	<b>443</b>	<b>2045</b>	<b>69.7%</b>	<b>1,426</b>	<b>143</b>	<b>324</b>	<b>379</b>	<b>370</b>	<b>210</b>	<b>1,195</b>	<b>231</b>

**Notes:**

RD - Reportable days are when a ship is in Alaskan waters for at least 3 hours in a day.

% - Percent coverage for 2011

DR - Daily Report

VDR - Voyage Daily Reports, Ocean Ranger onboard while underway.

IDR - In Port Daily Report

**4. DISCUSSION**

- a. Ocean Ranger schedule creation and implementation began later than previous years because of delays in the RFP process and contract extension in 2010. Lessons learned from the 2010 RFP process resulted in earlier and improved planning for the 2012 cruise season.
- b. The newly created Job Aid improved understanding of regulatory items to check in daily reporting. The Cruise Ship Program planned a complete revision of the Guidebook and training prior to the 2012 cruise season. The Cruise Ship Program and CMS will continue to focus Ocean Ranger activities toward high-occurrence and high consequence areas of cruise ship operations.
- c. Ocean Rangers provided timely and high quality information to the Cruise Ship Program and federal agencies for oil pollution, opacity (air emissions), wastewater treatment, solid waste processing, and required documentation. Ocean Rangers also assisted cruise ship crews in understanding State of Alaska requirements, including referring issues to appropriate Cruise Ship Program staff. Detailed Ocean Ranger

monitoring and reporting verified that, in general, cruise ships follow sound environmental, health, and safety practices that minimize impact on the environment, vessel crews, passengers and Alaskans. However, there are still areas of concern.

- d. Cruise Ship cooperation is strong. However, intermittent communication issues persist between Ocean Rangers and vessel crews. While the issues represent a small fraction of interactions, if left unaddressed the frequency of the issues could increase or result in avoidable non-compliant conditions. The Cruise Ship Program and CMS will continue to foster a team approach with vessel crews and owners or operators.
- e. Access issues indicate that some cruise lines, whether operators or vessel crews, may remain reluctant to cooperate with Ocean Rangers. Although these incidents represent a small fraction of interactions, the cascading effect may continue to impact the quality and quantity of Ocean Ranger monitoring. The Cruise Ship Program will address these issues with continued efforts to improve communications with owners and operators, and by reminding operators that Ocean Ranger monitoring is a legal requirement, not a voluntary activity.
- f. Ocean Rangers reported several wastewater finding related to required documentation. The findings tended towards improper completion of required documentation and not the absence of the documentation. While improperly kept documentation does not represent an immediate danger to water quality, it does indicate possible systemic problems with a cruise ship's wastewater management practices and reporting.
- g. Daily reporting indicated, and verification reports confirmed, that a number of cruise ships had submitted deficient or inaccurate vessel specific sampling plans (VSSP). Although the Cruise Ship Program did not find that the deficiencies or inaccuracies caused effluent quality concerns, they may have been contributing factors for wastewater spills in previous years, and may contribute to mishaps in the future.

## APPENDIX A. LINKS TO OCEAN RANGER DOCUMENTS AND WEBSITES

### 2011 Documents:

[2011 Ocean Ranger Job Aid](#)

[2011 Ocean Ranger Guidebook](#)

[2011 Ocean Ranger Deployment Schedule](#)

[2011 Daily Observation Report](#)

[2011 Example Once a Season Report](#)

### Websites:

Alaska Department of Environmental Conservation (DEC) Cruise Ship Home Page:  
[http://www.dec.state.ak.us/water/cruise\\_ships/index.htm](http://www.dec.state.ak.us/water/cruise_ships/index.htm)

Alaska Department of Environmental Conservation (DEC) Ocean Ranger Page:  
[http://www.dec.state.ak.us/water/cruise\\_ships/ocean\\_ranger\\_info.html](http://www.dec.state.ak.us/water/cruise_ships/ocean_ranger_info.html)

US Centers for Disease Control: Vessel Sanitation Program, Cruise Ship Reports:  
<http://wwwn.cdc.gov/InspectionQueryTool/Forms/InspectionSearch.aspx>

Environmental Protection Agency (EPA): Vessel Discharge Final Permit:  
[http://cfpub.epa.gov/npdes/home.cfm?program\\_id=350](http://cfpub.epa.gov/npdes/home.cfm?program_id=350)

United States Coast Guard: <http://www.uscg.mil/>

**APPENDIX B. ACRONYMS**

AAC	Alaska Administrative Code
AS	Alaska Statutes
AWTS	Advanced Wastewater Treatment System
BW	Black Water
CFR	Code of Federal Regulations
CPVEC	Commercial Passenger Vessel Environmental Compliance Program (DEC cruise ship program)
CMS	Crowley Maritime Services
DEC	Alaska Department of Environmental Conservation
EPA	US Environmental Protection Agency
GP	Large Cruise Ship Wastewater General Permit
IMO	International Maritime Organization
GW	Gray water
IP	In-port Inspection
N/A	Not Applicable
QAPP	Quality Assurance Project Plan
PRP	Potential Responsible Party
SPAR	ADEC Division of Spill Prevention and Response
USCG	United States Coast Guard
VGP	Vessel General Permit (EPA)
VSSP	Vessel Specific Sampling Plan
WW	Wastewater