

Key:

✓ = answered

o = not answered at all

\ = answered in part

n/a = marked as n/a

		Carnival Spirit	Norwegian Star ¹	Norwegian Pearl	Disney Wonder	Seven Seas Navigator	Oceania Regatta
A-1	Contact Information	✓	✓	✓	✓	✓	✓
A-2	Comments	o	✓	✓	✓	o	o
A-3	2011 Days in AK water	20	78	78	90	64	66
A-4	Typical?	Typ	Typ	Typ	First	Higher	First
A-5	Plan to be in AK for 2013?	No	No	No	Yes	Yes	Yes
A-6	Planned Modifications?	No	No	No	No	No	No
B-1	Waste Destination	✓	✓	✓	✓	✓	✓
B-2	Flow Rates	✓	✓	✓	✓	✓	✓
B-3	Holding Capacity (hours)	o	61/77	61/77	57.7 combined	72/72	72/72
B-4	Untreated waste to Shore?	No	No	No	No	No	No
B-5	Volume and type transferred	✓	n/a	n/a	n/a	n/a	n/a
B-6	Treated waste to Shore?	No	No	No	No	No	No
B-7	Volume and type transferred	✓	n/a	n/a	n/a	n/a	n/a
C-1	System Name	chem/Graywa	Scanship	Scanship	Hamworthy	Scanship WO on Water AG N	
C-2	System Manufacturer	✓	✓	✓	✓	✓	Norderstedt
C-3	Batch or Continuous	Cont	Cont	Cont	Cont	Cont	Cont
C-4	How many batches/day	n/a	n/a	n/a	n/a	n/a	n/a
C-5	Batch Volume	n/a	n/a	n/a	n/a	n/a	n/a
C-6	Average volume m3/day	250	1023	1023	750	300	170
C-7	Location of WWTS operation	✓	✓	✓	✓	✓	✓
C-8	Days WWTS operated/in AK	120/70	365/78	365/78	355/72	365/64	198/66
C-9	Where Discharge?	✓	✓	✓	✓	✓	✓
C-10	Time discharge outside and inside of A	0/1700	30/850	30/670	36/924.5	38/1416	14.5/1236.5

		Carnival Spirit	Norwegian Star ¹	Norwegian Pearl	Disney Wonder	Seven Seas Navigator	Oceania Regatta
D-1	Original Cost of WWTS	\	\	\	o	✓	n/a
D-2	purchase vs installation cost	\	\	✓	o	✓	n/a
D-3	Date of installation and ops	✓	✓	✓	✓	✓	✓
D-4	O&M Costs	\	✓	✓	\	✓	✓
D-5	Aeration description	n/a	✓	✓	✓	✓	✓
D-6	Aeration system used to spec	n/a	✓	✓	✓	✓	✓
D-7	Changes to aeration to improve?	n/a	✓	✓	✓	✓	✓
D-8	Research for mods to aeration	n/a	✓	✓	✓	✓	✓
D-9	Info on mods	✓	✓	✓	\	✓	n/a
D-10	Planned mods?	n/a	✓	✓	\	✓	n/a
D-11	Mods to piping and holding	n/a	✓	✓	o	✓	n/a
D-12	Mods planned to reduce metals and ar	n/a	✓	✓	o	✓	n/a
D-13	Space dimensions	✓	✓	✓	✓	✓	✓
D-14	More space available	No	No	No	No	No	No
D-15	describe	n/a	✓	✓	✓	✓	n/a
D-16	feasible to add components	n/a	✓	✓	✓	Yes	✓
D-17	power available?	n/a	✓	✓	o	✓	n/a
E-1	pollutions prevention methods	✓	None	None	✓	✓	✓
E-2	description of methods	✓	n/a	n/a	\	✓	✓
E-3	future plans	✓	✓	✓	✓	✓	✓
F-1	Treated discharge practices	✓	✓	✓	✓	✓	✓
F-2	Treated water reused?	No	No	No	No	No	No
F-3	Would you use shore facilities	No	Yes	Yes	Yes	Yes	No
F-4	Cost at not feasible to use \$/m3	\	>\$0	>\$0	Unknown	o	\$10-15
F-5	How do you view patterns	Manageable	Manageable	Manageable	Manageable	Manageable	Manageable
F-6	Does continuous discharge help	Yes	Yes	Yes	Yes	Yes	Yes
F-7	Do regs affect itineraries	No	Yes	Yes	Yes	No	No
F-8	Do regs affect discharge	No	Yes	Yes	Yes	No	No
F-9	Would you change intineraries	n/a	Possibly	Possibly	No	No	No
F-10	Would you change discharge practices	n/a	Yes	Yes	Yes	No	No

		Carnival Spirit	Norwegian Star ¹	Norwegian Pearl	Disney Wonder	Seven Seas Navigator	Oceania Regatta
F-11	Comments	o	o	o	o	✓	✓
G-1	BAT Influent/Effluent Information	o	\	\	\	\	✓
G-2	BAT Add-on Options	n/a	n/a	n/a	\	\	\
G-3	BAT PP Methods	n/a	n/a	n/a	\	\	n/a
G-4	BAT Control	n/a	n/a	n/a	\	\	\
G-5	BAT Replacement	n/a	\	\	✓	✓	\
EPA Survey		YES	YES	No	No	No	No

1 NCL Includes Vendor Proposal from Scanship

2 Note detailed pollution prevention text

3 Operated but didn't discharge

4 Much of response not legible

5 All princess docs have same information for Section E

6 Replacing gray water system

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	Statendam ²	Volendam ²	Westerdam ²	Zaandam ²	Silver Shadow ^{3,4}	Coral Princess ⁵	Diamond Princess
A-1 Contact Information	✓	✓	✓	✓	✓	✓	✓
A-2 Comments	o	o	o	o	o	✓	✓
A-3 2011 Days in AK water	99	99	99	103	94	99	101
A-4 Typical?	Typ	Typ	Typ	Typ	Higher	Typ	Typ
A-5 Plan to be in AK for 2013?	Yes	Yes	Yes	Yes	Yes/No	Yes	Yes
A-6 Planned Modifications?	No	No	and addon exi	No	No	No	No
B-1 Waste Destination	✓	✓	✓	✓	✓	✓	✓
B-2 Flow Rates	✓	✓	✓	✓	✓	✓	✓
B-3 Holding Capacity (hours)	72/72	78/78	543.6/56.3	78/78	87/87	72/72	57/57
B-4 Untreated waste to Shore?	No	No	No	No	No	No	yes 6.72 \$/m3
B-5 Volume and type transferred	n/a	n/a	n/a	n/a	n/a	n/a	✓
B-6 Treated waste to Shore?	No	No	No	No	No	Yes	No
B-7 Volume and type transferred	n/a	n/a	n/a	n/a	n/a	✓	n/a
C-1 System Name	Zenon	Zenon	OCHEM/OVIVC	Zenon	risan 250/Biopamworthy	Hamworthyx3	
C-2 System Manufacturer	✓	✓	✓	✓	✓	✓	✓
C-3 Batch or Continuous	Cont	Cont	Cont	Cont	Cont	Cont	Cont
C-4 How many batches/day	n/a	n/a	n/a	n/a	n/a	n/a	n/a
C-5 Batch Volume	n/a	n/a	n/a	n/a	n/a	n/a	n/a
C-6 Average volume m3/day	510	482	200/342	249.4	0/25	200/150	270/211/211
C-7 Location of WWTS operation	✓	✓	✓	✓	✓	✓	✓
C-8 Days WWTS operated/in AK	365/99	365/99	365/82	365/103	6/0 : 365/91	365/99	365/101
C-9 Where Discharge?	✓	✓	✓	✓	✓	✓	✓
C-10 Time discharge outside and inside of A	294/671	21.46/982	0/0 : 13/0	18/1882.5	0/0 : 0/0	48/748	72/750

		Statendam ²	Volendam ²	Westerdam ²	Zaandam ²	Silver Shadow ³⁴	Coral Princess ⁵	Diamond Princess
D-1	Original Cost of WWTS	✓	✓	✓✓	✓	\	x	\
D-2	purchase vs installation cost	✓	✓	✓✓	✓	\	n/a	\
D-3	Date of installation and ops	✓	✓	✓	✓	\	✓	✓
D-4	O&M Costs	✓	✓	✓	✓	\	✓	✓
D-5	Aeration description	✓	✓	✓	✓	\	✓	✓
D-6	Aeration system used to spec	✓	✓	✓	✓	o	✓	Yes
D-7	Changes to aeration to improve?	✓	✓	✓	✓	✓	✓	No
D-8	Research for mods to aeration	✓	✓	✓	✓	✓	o	No
D-9	Info on mods	✓	✓	✓	✓	✓	n/a	n/a
D-10	Planned mods?	✓	✓	✓	✓	o	n/a	n/a
D-11	Mods to piping and holding	✓	✓	✓	✓	✓	n/a	n/a
D-12	Mods planned to reduce metals and ar	✓	✓	✓	✓	o	n/a	No
D-13	Space dimensions	✓	✓	✓	✓	✓	✓	✓
D-14	More space available	No	No	No	No	No	No	No
D-15	describe	\	\	\	\	\	n/a	n/a
D-16	feasible to add components	✓	✓	✓	✓	✓	✓	No
D-17	power available?	✓	✓	✓	✓	o	✓	\
E-1	pollutions prevention methods	✓	✓	✓	✓	✓	✓	✓
E-2	description of methods	✓	✓	✓	✓	\	✓	✓
E-3	future plans	\	\	✓	\	o	✓	✓
F-1	Treated discharge practices	✓	✓	✓	✓	✓	✓	✓
F-2	Treated water reused?	No	No	No	No	No	No	No
F-3	Would you use shore facilities	No	No	No	No	Yes/No	Yes	Yes
F-4	Cost at not feasible to use \$/m3	n/a	n/a	n/a	n/a	Unknown	\$70	\$70
						Managble but expensive	Burden/O ther see note	Burden/Other see note
F-5	How do you view patterns	Burden	Burden	Burden	Burden			
F-6	Does continuous discharge help	Yes	Yes	Yes	Yes	Yes/No	Yes	Yes
F-7	Do regs affect itineraries	Yes	Yes	Yes	Yes	o	Yes	Yes
F-8	Do regs affect discharge	Yes	Yes	Yes	Yes	o	Yes	Yes
F-9	Would you change intineraries	Yes	Yes	Yes	Yes	o	No	No
F-10	Would you change discharge practices	Yes	Yes	Yes	Yes	o	No	No

		Statendam ²	Volendam ²	Westerdam ²	Zaandam ²	Silver Shadow ³ 4	Coral Princess ⁵	Diamond Princess
F-11	Comments	✓	✓	✓	✓	✓	✓	✓
G-1	BAT Influent/Effluent Information	✓	✓	✓	✓	n/a	✓	✓
G-2	BAT Add-on Options	✓	✓	✓	✓	✓	\	n/a
G-3	BAT PP Methods	✓	✓	✓	✓	o	\	\
G-4	BAT Control	✓	✓	✓	✓	✓	\	o
G-5	BAT Replacement	✓	✓	✓	✓	\	✓	\
EPA Survey		YES	YES	No	YES	No	Yes	Yes

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	Golden Princess	Island Princess	Sapphire Princess	Sea Princess
A-1 Contact Information	✓	✓	✓	✓
A-2 Comments	✓	✓	✓	✓
A-3 2011 Days in AK water	76	99	72	52
A-4 Typical?	Typ	Typ	Typ	Typ
A-5 Plan to be in AK for 2013?	Yes	Yes	Yes	No
A-6 Planned Modifications?	No	No	No	No
B-1 Waste Destination	✓	✓	✓	✓
B-2 Flow Rates	✓	✓	✓	✓
B-3 Holding Capacity (hours)	208/80.4	72/72	57	91/91
B-4 Untreated waste to Shore?	es 17.43/mes	4.69 \$/m	No	es \$4.40/m3
B-5 Volume and type transferred	✓	✓	n/a	✓
B-6 Treated waste to Shore?	No	No	No	No
B-7 Volume and type transferred	n/a	n/a	n/a	n/a
C-1 System Name	amworthyworthy/Hamworthy MElworthy MBRx2			
C-2 System Manufacturer	✓	✓	✓	✓
C-3 Batch or Continuous	Cont	Cont	Cont	Cont
C-4 How many batches/day	n/a	n/a	n/a	n/a
C-5 Batch Volume	n/a	n/a	n/a	n/a
C-6 Average volume m3/day	8.5/175/18	156/159	.9/169.3/10	11.9/197.9
C-7 Location of WWTS operation	✓	✓	✓	✓
C-8 Days WWTS operated/in AK	365/76	363/99	364/72	363/52
C-9 Where Discharge?	✓	✓	✓	✓
C-10 Time discharge outside and inside of A	13/1102	182/731	20/1062	9/493

		Golden Princess	Island Princess	Sapphire Princess	Sea Princess
D-1	Original Cost of WWTS	✓	✓	✓	✓
D-2	purchase vs installation cost	n/a	n/a	n/a	n/a
D-3	Date of installation and ops	✓	✓	✓	✓
D-4	O&M Costs	✓	✓	✓	✓
D-5	Aeration description	✓	✓	✓	✓
D-6	Aeration system used to spec	Yes	Yes	Yes	Yes
D-7	Changes to aeration to improve?	No	No	No	No
D-8	Research for mods to aeration	No	No	No	No
D-9	Info on mods	n/a	n/a	n/a	n/a
D-10	Planned mods?	No	No	No	No
D-11	Mods to piping and holding	Yes	No	Yes	No
D-12	Mods planned to reduce metals and ar	No	No	No	No
D-13	Space dimensions	✓	✓	✓	✓
D-14	More space available	No	No	No	No
D-15	describe	n/a	n/a	n/a	n/a
D-16	feasible to add components	No	No	No	No
D-17	power available?	\	\	\	\
E-1	pollutions prevention methods	✓	✓	✓	✓
E-2	description of methods	✓	✓	✓	✓
E-3	future plans	✓	✓	✓	✓
F-1	Treated discharge practices	✓	✓	✓	✓
F-2	Treated water reused?	No	No	No	No
F-3	Would you use shore facilities	Yes	Yes	Yes	Yes
F-4	Cost at not feasible to use \$/m3	\$70	\$70	\$70	\$70
		Burden/O ther see	Burden/O ther see	Burden/O ther see	Burden/O ther see
F-5	How do you view patterns	note	note	note	note
F-6	Does continuous discharge help	Yes	Yes	Yes	Yes
F-7	Do regs affect itineraries	Yes	Yes	Yes	Yes
F-8	Do regs affect discharge	Yes	Yes	Yes	Yes
F-9	Would you change intineraries	No	No	No	No
F-10	Would you change discharge practices	No	No	No	No

		Golden Princess	Island Princess	Sapphire Princess	Sea Princess
F-11	Comments	✓	✓	✓	✓
G-1	BAT Influent/Effluent Information	✓	✓	✓	✓
G-2	BAT Add-on Options	n/a	n/a	n/a	n/a
G-3	BAT PP Methods	n/a	No	No	No
G-4	BAT Control	\	\	\	\
G-5	BAT Replacement	\	✓	✓	✓
EPA Survey		No	Yes	Yes	No

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- 6 Replacing gray water system