



# **BALTIC SEWAGE PRF Assessment 2019**

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# CLIA

Cruise Lines International Association (CLIA) is the unified global organization helping the cruise industry succeed by advocating, educating and promoting the common interests of the cruise community.

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# CLIA Community

**50+** CRUISE LINES



Ocean, river and specialty cruise lines, representing more than 95 percent of global cruise capacity

**340+** EXECUTIVE PARTNERS



Key suppliers and cruise line partners, including ports & destinations and ship development, suppliers and business services

**15,000** TRAVEL AGENCIES



Includes the largest agencies, hosts, franchises and consortia

**25,000**

TRAVEL AGENT MEMBERS WORLDWIDE



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# One unified global voice



## 15 Offices Around the World

Brazil / Alaska / Australasia / Belgium & Luxembourg / Europe /  
France / Germany / Italy / Netherlands / North America / North Asia /  
North West & Canada / Southeast Asia / Spain / UK & Ireland

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# CLIA Engagement

- IMO
- HELCOM
- EC & EP & European Member States
- ESSF
- ESPO / ECSA / ICS / Interferry
- European Maritime Days, European Shipping Week, Ship Tours, Sewage PRF Exercise Baltic...etc.

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# The Baltic as a key market

- 3rd market by destination in the world
- 334 k passengers in 2017; +5%(up from +2.1%)
- 353 MLN spending (2016)
- Unique destination

- Updated numbers to become available in April '19

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# CLIA's Industry practices

- **CLIA Member No Untreated Sewage Discharge Policy:** Existing and newly built CLIA Member ships, follow CLIA's policy of no discharge of untreated sewage anywhere in the world.
- **Compliance with Wastewater Discharge Requirements:** The cruise industry must meet or exceed international and national wastewater quality standards and overall the cruise industry's rate of compliance is commensurate or better than the rest of the maritime industry.
- **Baltic Sea Practices for Wastewater Reception Facilities:** Cruise ships voluntarily using port wastewater reception facilities in the Baltic Sea when available; this voluntary practice precedes implementation of new requirements.

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# Voluntary wastewater commitment

CLIA Member lines recognize the extraordinary eutrophication situation in the Baltic Sea which necessitated its designation as a Special Area under MARPOL Annex IV.

The IMO Guide to Good Practice for Port Reception Facility Providers and Users, which was revised following the designation of the Baltic Sea as a Special Area under MARPOL Annex IV, encourages shipping, even when the Special Area has not yet come into effect, to endeavour to meet the requirements as if the Special Area status had taken effect.

Consistent with the spirit of MARPOL and the port reception facility guidance, **CLIA Member lines agree to discharge MARPOL Annex IV waste ashore where adequate port reception facilities are available under a 'no special fee' arrangement.**

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# Baltic Sewage PRF Assessment

- Organisation and ships participating
- Ports and berths assessed
- Preliminary Results
- Preliminary Conclusions

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# Baltic Sewage PRF Assessment

- Voluntary participation by cruise ships
- Reporting on experiences in ports
- Not necessarily discharging
- Participating ships using a standardized form (Excel)
- Form contains aspects managed by multiple people on board and on shore with not all information available at same moment

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# Reporting form

- Switch to Excel

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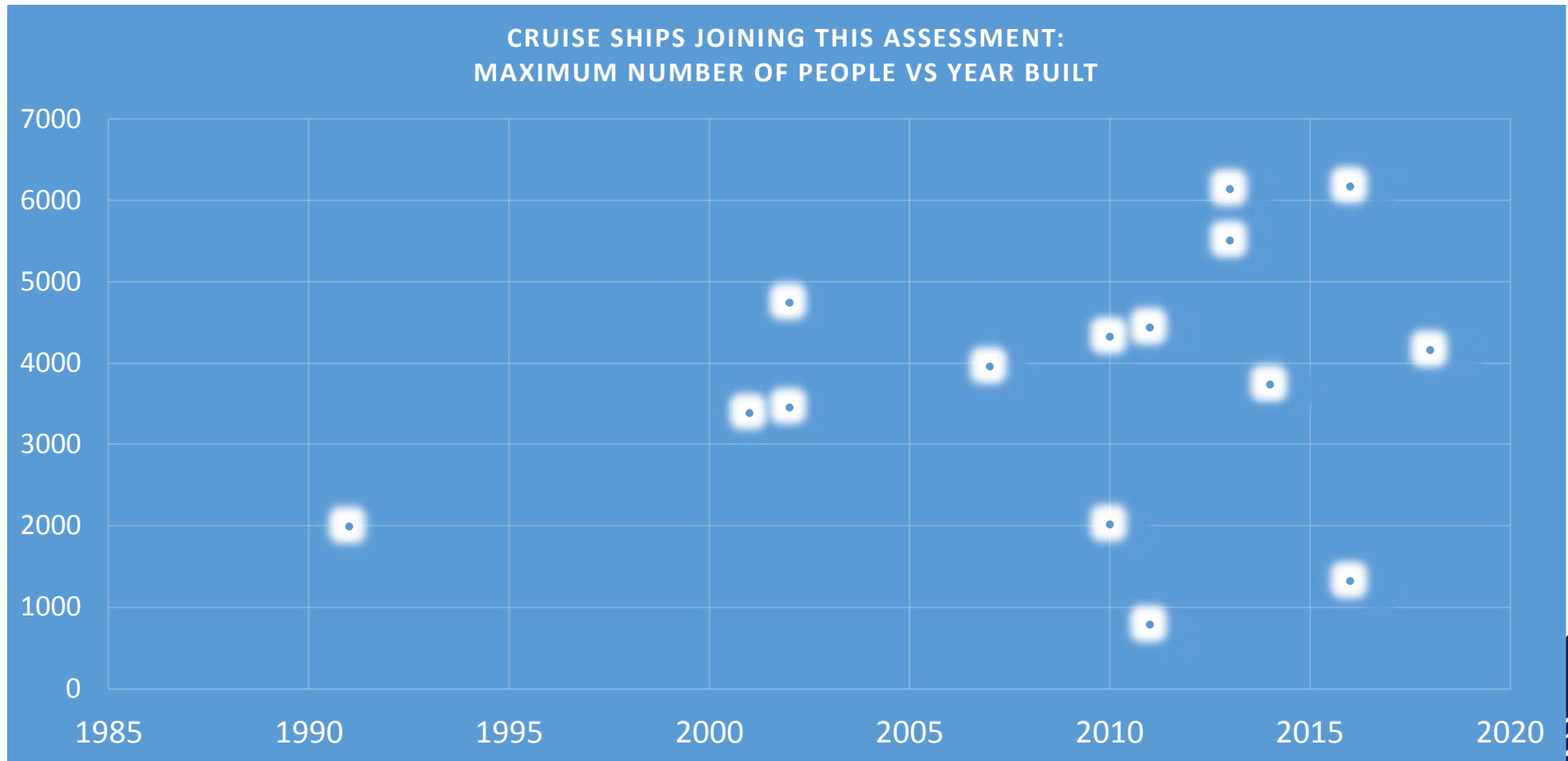


Ship Code	Year of Built	Maximum number of people (guests and crew) on board	Does the cruise ship have an AWP/AWT system on board?	If yes, is this system applying Chlorine?	In compliance with Alaska Standards for Continuous Discharge Blackwater from large commercial vessels1 (US EPA; 33 CFR Part 159 Subpart E) ?	In compliance with IMO Resolution MEPC.159(55)	In compliance with IMO Resolution MEPC.227(64)
CS101	2001	4325	Yes	No	Yes	Yes	Yes
CS102	2010	4162	Yes	No	Yes	Yes	Yes
CS103	2018	3737					
CS104	2014	4744	Yes	Yes		No	Yes
CS105	2002	4439	Yes	Yes	Yes	Yes	Yes
CS106	2011	3456	Yes	Yes	No	Yes	No
CS107	2002	1992	Yes	No	Yes	Yes	Yes
CS108	1991	6141	No	No	No	No	No
CS109	2013	1320	Yes	Yes	No	Yes	Yes
CS110	2016	2017	Yes	No			Yes
CS111	2010	6173	Yes	No	No	Yes	No
CS112	2016	3959	Yes	No		Yes	
CS113	2007	5509	No	No	No	No	No
CS114	2013	0	Yes	No	No	Yes	No
CS115	2011	785	Yes	No	No	No	No

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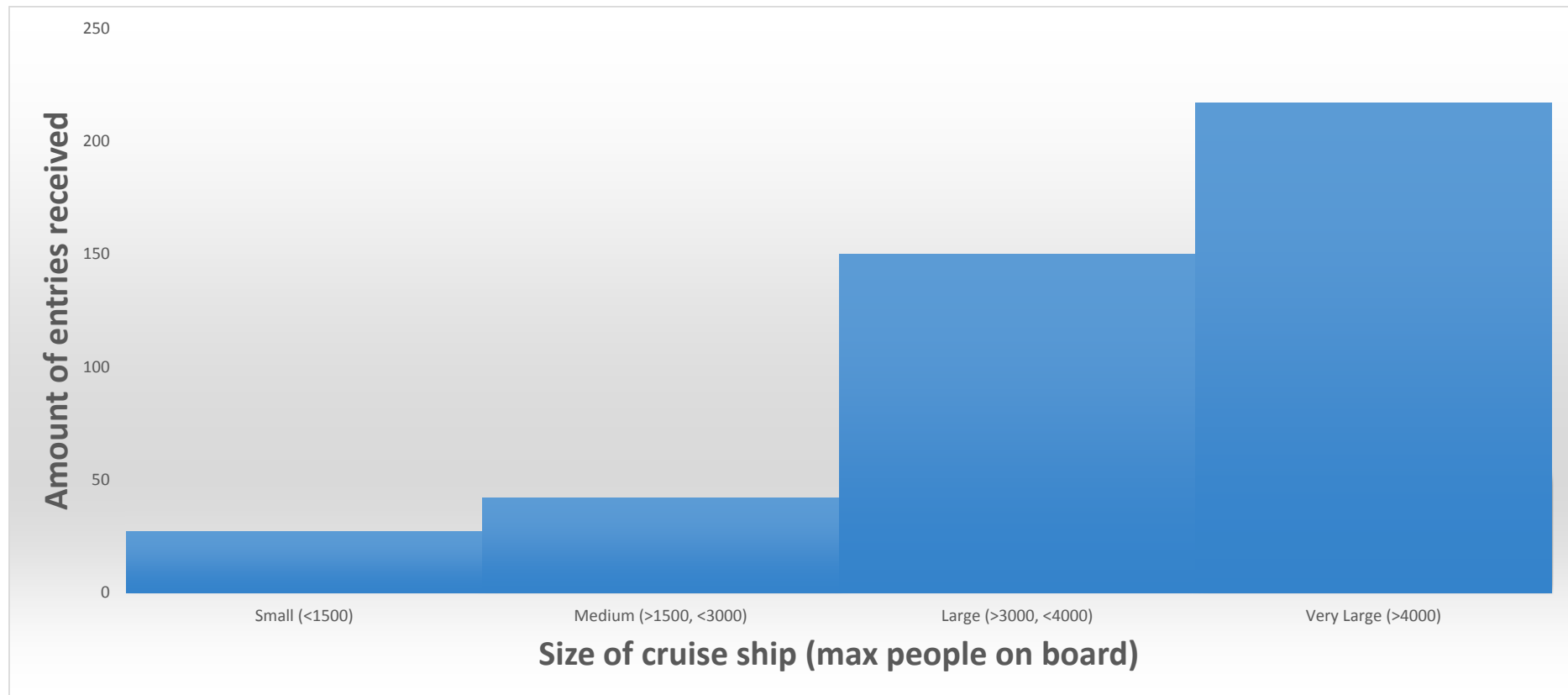
# Participating ships



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# Feedback received



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# Ports vs ship visits

Row Labels	CS101	CS102	CS103	CS104	CS105	CS106	CS107	CS108	CS109	CS110	CS111	CS112	CS113	CS114	CS115	Grand Total	Amount of unique cruise ships visiting the specific port
Aalborg																3	3
Aarhus	1	1						2								2	4
Bornholm	1															1	1
Copenhagen	1	7	4	6	1	3	7	10		6	2	4		10	20	81	13
Flensburg	1															1	1
Fredericia	1							1							1	3	3
Gdansk	1											1				2	3
Gdynia	1			10							1					12	3
Gothenburg	1			2										1		4	1
Heiringsdorf	1															1	1
Helsingborg	1															1	1
Helsingør	1															1	1
Helsinki	1	7	4	1	1	3	2	11	2	5	4	4	1	4	1	51	1
Holtenau	1															1	1
Hundested	1															1	1
Kaliningrad	1															1	1
Kalmar	1															1	1
Kalundborg	1															1	2
Karlskrona	1										2					3	1
Kemi	1															1	4
Kiel	1			15	3											20	6
Klaipėda	1			5				1			3	1		1	1	12	1
Kotka	1															1	1
Lübeck	1															1	1
Luleå	1															1	2
Malmö	1								2							3	1
Mariehamn	1															1	4
Nynashamn	1						1		1	7						10	1
Örnsköldsvik	1															1	1
Pori	1															1	3
Riga	1							5				2				8	2
Rønne	1			1												2	6
Rostock	1	1	1				3		2	2						10	1
Saaremaa	1															1	1
Sassnitz	1															1	6
Skagen	1	7				3	1	1				1				14	14
St Petersburg	1	7	4	7	1	3	6	11	2	6	4	4		1	2	59	12
Stockholm	1	6	4	4	1		5	11	1		3	3		2	6	47	1
Stralsund	1															1	1
Swinoujście	1															1	1
Szczecin	1															1	15
Tallinn	1	7	4	6	1	3	7	11	2	6	5	4	2	4	10	73	1
Travemünde	1															1	2
Turku	1			1												2	1
Umeå	1															1	1
Veere	1															1	1
Ventspils	1															1	2
Visby	1											1				2	8
Warnemünde	1		3				3	1		4	1	4		11		28	1
Wismar	1															1	2
<b>Grand Total</b>	<b>50</b>	<b>43</b>	<b>24</b>	<b>61</b>	<b>8</b>	<b>15</b>	<b>35</b>	<b>65</b>	<b>12</b>	<b>36</b>	<b>25</b>	<b>30</b>	<b>3</b>	<b>34</b>	<b>41</b>	<b>2</b>	<b>629</b>

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# Ship discharges

	Volumes delivered (m3)							
	Max.	Av.	Max.	Av.	Max.	Av.	Max.	Av.
Ship Code	BLACK WATER ONLY		GREY WATER ONLY		Mixture Black and Grey WATER ONLY		Delivery of Bio-Residue	
CS101	35	35	530	296	500	321		
CS102			610	328	609	293		
CS103					700	431		
CS104			409	280				
CS105	130	41	763	276	688	240		
CS106					951	220	112	33
CS107					1170	253	190	50
CS108					678	305		
CS109	500	458	500	444	2057	681		
CS110					171	110	18	9
CS111	110	110	131	87	310	166		
CS112	125	107					5	4
CS113	394	232	730	319				
CS114	187	124	832	418	644	472	11	8
CS115								





# Unique ports visits by cruise ships

Shipcode	Amount of unique ports visited by a specific cruise ships
CS101	9
CS102	8
CS103	13
CS104	7
CS105	6
CS106	10
CS107	12
CS108	8
CS109	8
CS110	10
CS111	12
CS112	3
CS113	9
CS114	8
CS115	2

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# Operations during this assessment

<b>Total number of entries:</b>	<b>434</b>	<b>at that port</b>
<b>Number occasions Cruise ship intended to discharge anything</b>	<b>320</b>	
<b>Number occasions Cruise ship did not intend to discharge anything</b>	<b>114</b>	

<b>Does the cruise ship intend to discharge "Only Black Water"?</b>	<b>42</b>	<b>Total intent to discharge</b>
<b>Does the cruise ship intend to discharge "Only Grey Water"?</b>	<b>77</b>	
<b>Does the cruise ship intend to discharge "Mixed Black/Grey Water"?</b>	<b>247</b>	
<b>Does the cruise ship intend to discharge "Bio-Residue"?</b>	<b>72</b>	
<b>Total:</b>	<b>438</b>	

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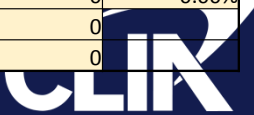
			Intention to discharge?				Volumes delivered (m3)							
			BW Only	GW Only	Mixed BW&GW Only	Bio-residue	Max.	Av.	Max.	Av.	Max.	Av.	Max.	Av.
Baltic ports	Country	Overview Total number of single visits					BLACK WATER ONLY	GREY WATER ONLY	Mixture Black and Grey WATER ONLY		Delivery of Bio-Residue			
Aalborg	Denmark	2	0	0	2	0				19	19			
Aarhus	Denmark	3	0	0	0	0								
Copenhagen	Denmark	80	17	7	48	12	500	298	561	229	1170	396	104	41
Fredericia	Denmark	2	0	0	2	1					400	368	27	27
Gdansk	Poland	1	0	0	0	0								
Gdynia	Poland	6	1	0	0	0								
Gothenburg	Sweden	3	0	1	2	0			400	400	318	309		
Helsinki	Finland	52	4	17	38	13	300	117	600	324	700	304	85	40
Karlskrona	Sweden	2	0	0	1	0								
Kiel	Germany	19	0	3	16	0			409	315	495	336		
Klaipeda	Lithuania	12	1	1	8	0			200	200	111	64		
Malmö	Sweden	2	0	0	1	0					93	93		
Nynashamn	Sweden	9	0	0	0	0								
Riga	Latvia	7	0	0	3	1					138	124		
Rønne	Denmark	1	0	0	0	0								
Rostock	Germany	8	0	0	1	0					20	20		
Warnemünde		28	1	16	15	1	500	125	500	266	507	228	23	6
St Petersburg	Russia	60	6	7	11	0	156	104	832	526	2057	1037		
Skagen	Denmark	13	0	0	0	0								
Stockholm	Sweden	49	2	7	41	16	154	96	500	322	951	327	190	48
Tallinn	Estonia	74	10	17	60	28	500	128	730	360	692	275	120	31
Turku	Finland	1	0	0	0	0								
Visby	Sweden	1	0	1	0	0			63	63				
	Sum:	435	42	77	249	72	2110	868.1466	4795	3004.874	7671.4	3901.002	548.6	192.7504
	Max:	80	17	17	60	28	500	297.8882	832	525.7143	2057	1036.778	189.6	47.81765
	Average	18.9	1.8	3.3	10.8	3.1	351.7	144.7	479.5	300.5	548.0	278.6	91.4	32.1

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		Problems encountered?		Problems encountered?		Problems encountered?		Problems encountered?	
		BW ONLY		GW ONLY		Mixed Black/Grey Water		Bio-Residue	
Baltic ports	Country	Does the cruise ship consider the fees disproportionately high such that they create a disincentive to utilize the PRFs?	Percentage of total number of intentions to discharge	Does the cruise ship consider the fees disproportionately high such that they create a disincentive to utilize the PRFs?	Percentage of total number of intentions to discharge	Does the cruise ship consider the fees disproportionately high such that they create a disincentive to utilize the PRFs?	Percentage of total number of intentions to discharge	Does the cruise ship consider the fees disproportionately high such that they create a disincentive to utilize the PRFs?	Percentage of total number of intentions to discharge
Aalborg	Denmark	0		0		2	100.00%	0	
Aarhus	Denmark	0		1		1		1	
Copenhagen	Denmark	10	58.82%	4	57.14%	24	50.00%	0	0.00%
Fredericia	Denmark	0		1		2	100.00%	1	100.00%
Gdansk	Poland	0		0		0		0	
Gdynia	Poland	5	500.00%	0		0		0	
Gothenburg	Sweden	0		0	0.00%	0	0.00%	0	
Helsinki	Finland	7	175.00%	5	29.41%	6	15.79%	0	0.00%
Karlskrona	Sweden	0		0		0	0.00%	0	
Kiel	Germany	1		0	0.00%	1	6.25%	0	
Klaipeda	Lithuania	2	200.00%	0	0.00%	0	0.00%	0	
Malmö	Sweden	0		0		0	0.00%	0	
Nynashamn	Sweden	0		0		0		0	
Riga	Latvia	0		0		1	33.33%	0	0.00%
Rønne	Denmark	0		0		0		0	
Rostock	Germany	0		0		0	0.00%	0	
Warnemünde		1	100.00%	2	12.50%	4	26.67%	1	100.00%
St Petersburg	Russia	16	266.67%	7	100.00%	15	136.36%	6	
Skagen	Denmark	0		0		0		0	
Stockholm	Sweden	8	400.00%	1	14.29%	7	17.07%	0	0.00%
Tallinn	Estonia	10	100.00%	2	11.76%	17	28.33%	0	0.00%
Turku	Finland	0		0		0		0	
Visby	Sweden	0		0	0.00%	0		0	

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# Results – Berth specific

Specific berth in the model				
At Anchor	Gothenburg XX	Klaipeda Berth 80	Skagen Cruise Berth 10	Tallinn XX
Non Baltic Port	Gothenburg Inner Harbor Frihamnen 107	Klaipeda Cruise Terminal Berth 28-33	Skagen Cruise Berth 9	Tallinn Berth 24
Other Baltic Port XX Please specify Port and Berth	Gothenburg Outer Harbor Arendal 751-752	Klaipeda Cruise Terminal Berth 29	St Petersburg XX	Tallinn Berth 24/25
Aalborg XX	Helsingborg XX	Klaipeda Cruise Terminal Berth 30-33	St Petersburg English Embankment	Tallinn Berth 25
Aarhus XX	Helsingborg At anchor	Klaipeda PAX terminal XX	St Petersburg Lt Schmidt Embankment	Tallinn Berth 26
Aarhus Berth 129	Helsingborg South Harbor 500	Lulea XX	St Petersburg Main Passenger Terminal, Berth B	Tallinn Berth 27
Copenhagen XX	Helsinki XX	Malmö XX	St Petersburg Marine Façade Terminal 1 Berth 6	Travemünde XX
Copenhagen Container terminal 266	Helsinki KatajaNokka Berth EKL	Malmö Frihamnskajen No. 602	St Petersburg Marine Façade Terminal 1 Berth 7	Umea XX
Copenhagen Langelinie XX	Helsinki South Harbor ERA	Mariehamn XX	St Petersburg Marine Façade Terminal 2 Berth 5	Visby XX
Copenhagen Langelinie 008-021	Helsinki West Harbor XX	Mariehamn Berth 1-2	St Petersburg Marine Façade Terminal 3 Berth 3	Visby Berth 7
Copenhagen Langelinie 19	Helsinki West Harbor Melkki Berth LMA	Nynashamn XX	St Petersburg Marine Façade Terminal 4 Berth 1	Warnemünde Rostock XX
Copenhagen Langelinie 33 - 54	Helsinki West Harbor Munkkisaari Berth	Nynashamn At anchor	Stockholm XX	Warnemünde Rostock Berth 41
Copenhagen Langelinie Berth C190	Helsinki West Harbor Munkkisaari Berth LHB	Nynashamn SeaWalk	Stockholm At anchor	Warnemünde Warnemünde XX
Copenhagen Langelinie Berth C192	Helsinki West Harbor Munkkisaari Berth LHC	Ornskoldsvik XX	Stockholm Berth 523	Warnemünde Warnemünde Cruise Terminal Berth 7
Copenhagen Nordre Toldbod C177	Helsinki West Harbor Ocean Berth LJ8	Pori XX	Stockholm Frihamnen	Warnemünde Warnemünde Cruise Terminal Berth 8
Copenhagen Ocean Berth XX	Helsinki West Harbour Melkki Berth LMA	Riga XX	Stockholm Frihamnen 634	Wismar XX
Copenhagen Ocean Berth Terminal 1 C331	Hundested XX	Riga Krievu Salas Terminal	Stockholm Frihamnen 638	
Copenhagen Ocean Berth Terminal 2 C332	Hundested Traffikhaven	Riga Pasazieru Terminal	Stockholm Frihamnen 650	
Copenhagen Ocean Berth Terminal 3 C333	Karlskrona XX	Rønne XX	Stockholm Ocean Berth 3	
Fredericia XX	Karlskrona At anchor	Rønne At anchor	Stockholm Stadsgården XX	
Fredericia Cruise Terminal Kastelkajen Berth 1-3	Kiel XX	Rostock XX	Stockholm Stadsgården 165/167	
Gdansk XX	Kiel Ostseekai LP 27	Rostock Rostock Berth XX	Stockholm Stadsgården 167	
Gdansk Westerplatte	Kiel Ostseekai LP 28	Rostock Rostock Cargo Port	Stockholm Vanasadam Kai 24	
Gdynia XX	Kiel Ostseekai LP 29	Rostock Rostock P31	Stockholm Vartahamnen XX	
Gdynia Francuskie Berth	Klaipeda XX	Skagen XX	Stockholm Vartahamnen 523	

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# Results – Berth Visits

Specific berth visited	visits	Berth	visits	Berth	visits
At Anchor	3	Klaipeda Cruise Terminal Berth 29	2	Tallinn XX	10
Non Baltic Port	1	Klaipeda Cruise Terminal Berth 30-33	3	Tallinn Berth 24	8
Aarhus XX	1	Klaipeda PAX terminal XX	1	Tallinn Berth 25	6
Aarhus Berth 129	2	Malmö Frihamnskajen No. 602	2	Tallinn Berth 26	15
Copenhagen Langelinie XX	5	Nynashamn XX	1	Tallinn Berth 27	30
Copenhagen Langelinie 33 - 54	22	Nynashamn SeaWalk	7	Visby Berth 7	1
Copenhagen Langelinie Berth C190	1	Riga XX	4	Warnemünde Warnemünde XX	2
Copenhagen Langelinie Berth C192	2	Riga Pasazieru Terminal	2	Warnemünde Warnemünde Cruise Terminal Berth 7	13
Copenhagen Ocean Berth Terminal 1 C331	21	Rønne At anchor	1	Warnemünde Warnemünde Cruise Terminal Berth 8	13
Copenhagen Ocean Berth Terminal 2 C332	1	Rostock Rostock Berth XX	2	<b>Totals</b>	<b>427</b>
Copenhagen Ocean Berth Terminal 3 C333	30	Rostock Rostock Cargo Port	2		
Fredericia Cruise Terminal Kastelkajen Berth 1-3	2	Rostock Rostock P31	4		
Gdansk Westerplatte	1	Skagen Cruise Berth 9	11		
Gdynia XX	4	St Petersburg XX	7		
Gdynia Francuskie Berth	2	St Petersburg Main Passenger Terminal, Berth B	9		
Gothenburg Outer Harbor Arendal 751-752	1	St Petersburg Marine Façade Terminal 1 Berth 6	2		
Helsinki XX	15	St Petersburg Marine Façade Terminal 1 Berth 7	18		
Helsinki West Harbor Melkki Berth LMA	11	St Petersburg Marine Façade Terminal 2 Berth 5	5		
Helsinki West Harbor Munkkisaari Berth LHB	4	St Petersburg Marine Façade Terminal 3 Berth 3	4		
Helsinki West Harbor Munkkisaari Berth LHC	15	St Petersburg Marine Façade Terminal 4 Berth 1	14		
Helsinki West Harbour Melkki Berth LMA	9	Stockholm XX	11		
Kiel XX	1	Stockholm Frihamnen	3		
Kiel Ostseekai LP 27	18	Stockholm Frihamnen 634	2		
Klaipeda Berth 80	2	Stockholm Frihamnen 638	17		
Klaipeda Cruise Terminal Berth 28-33	4	Stockholm Stadsgården 167	17		

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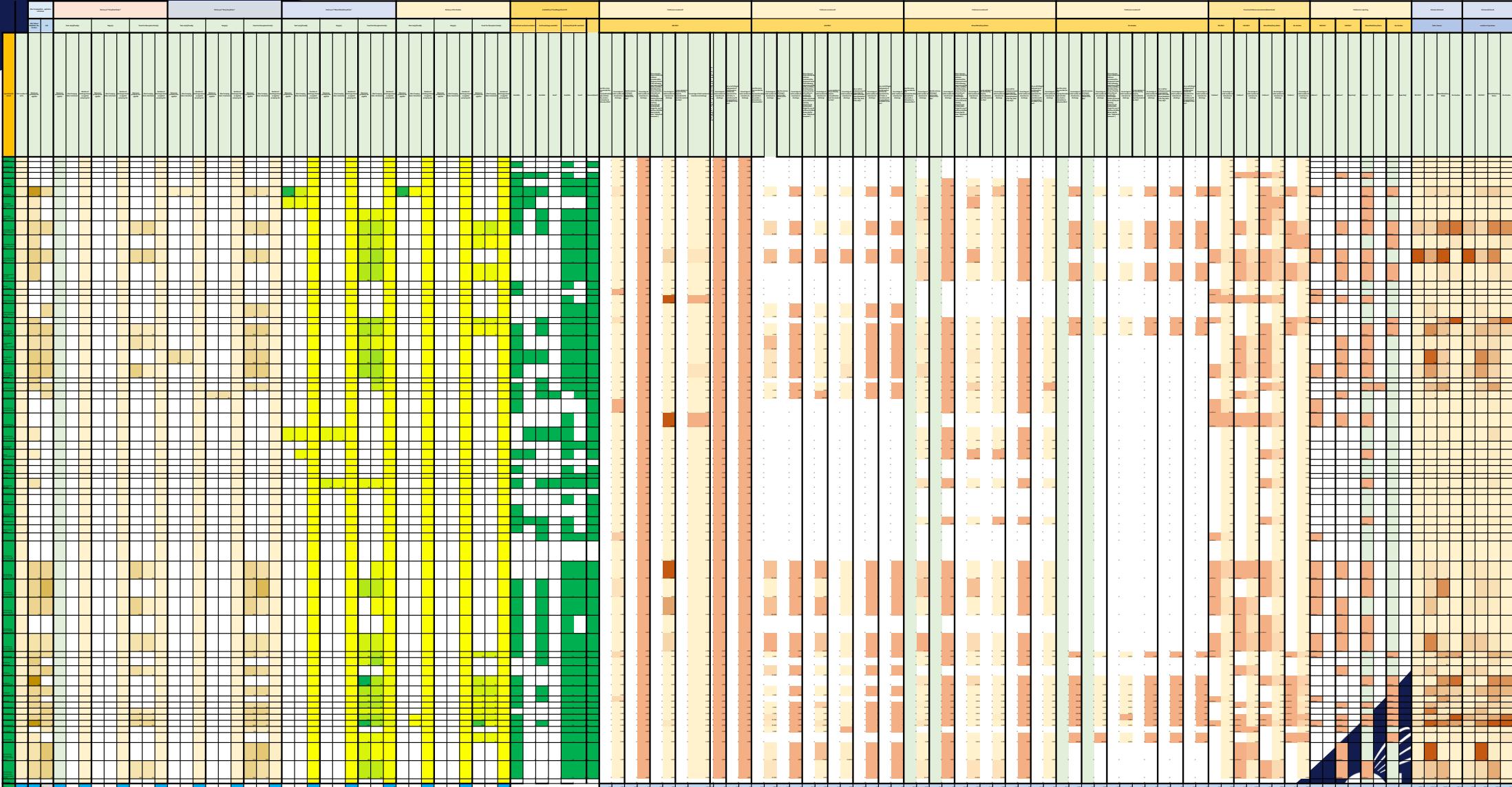


# Results – Berth visits

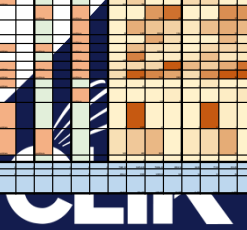
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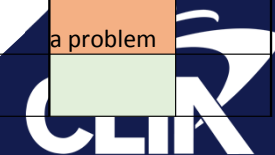
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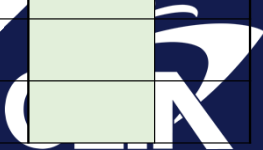


Specific berth visited	Total number of visits	Overview Problems encountered (Normalised)				Problems vs reporting							
		BW ONLY	GW ONLY	Mixed Black/Grey Water	Bio-Residue	BW ONLY		GW ONLY		Mixed Black/Grey Water		Bio-Residue	
		Percentage of total number of intentions to discharge	Percentage of total number of intentions to discharge	Percentage of total number of intentions to discharge	Percentage of total number of intentions to discharge	Problems?	Reporting?	Problems?	Reporting?	Problems?	Reporting?	Problems?	Reporting?
At Anchor	3	0.00%	0.00%	0.00%	0.00%								
Non Baltic Port	1	0.00%	0.00%	0.00%	0.00%								
Aarhus XX	1	0.00%	0.00%	0.00%	0.00%								
Aarhus Berth 129	2	0.00%	100.00%	100.00%	0.00%			a problem		a problem			
Copenhagen Langelinie XX	5	0.00%	0.00%	0.00%	0.00%								
Copenhagen Langelinie 33-54	22	5.26%	0.00%	47.37%	6.25%	a problem				a problem		a problem	
Copenhagen Langelinie Berth C190	1	0.00%	0.00%	200.00%	0.00%					a problem			
Copenhagen Langelinie Berth C192	2	0.00%	0.00%	100.00%	0.00%					a problem			
Copenhagen Ocean Berth Terminal 1 C331	21	0.00%	4.76%	23.81%	50.00%			a problem		a problem		a problem	
Copenhagen Ocean Berth Terminal 2 C332	1	0.00%	0.00%	0.00%	100.00%							a problem	
Copenhagen Ocean Berth Terminal 3 C333	30	20.00%	30.00%	113.33%	0.00%	a problem		a problem		a problem			
Fredericia Cruise Terminal Kastelkajen Berth 1-3	2	0.00%	50.00%	100.00%	50.00%			a problem		a problem		a problem	
Gdansk Westerplatte	1	0.00%	0.00%	0.00%	0.00%								
Gdynia XX	4	25.00%	0.00%	0.00%	0.00%	a problem							
Gdynia Francuskie Berth	2	100.00%	100.00%	150.00%	0.00%	a problem		a problem		a problem			
Gothenburg Outer Harbor Arendal 751-752	1	0.00%	0.00%	0.00%	0.00%								
Helsinki XX	15	6.67%	0.00%	0.00%	80.00%	a problem						a problem	
Helsinki West Harbor Melkki Berth LMA	11	0.00%	0.00%	10.00%	22.22%					a problem		a problem	
Helsinki West Harbor Munkkisaari Berth LHB	4	0.00%	25.00%	25.00%	0.00%			a problem		a problem			

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Helsinki West Harbor Munkkisaari Berth LHC	15	0.00%	18.18%	9.09%	0.00%			a problem		a problem			
Helsinki West Harbour Melkki Berth LMA	9	11.11%	33.33%	44.44%	0.00%	a problem		a problem		a problem			
Kiel XX	1	0.00%	0.00%	0.00%	0.00%								
Kiel Ostseekai LP 27	18	0.00%	0.00%	111.11%	0.00%					a problem	a problem		
Klaipeda Berth 80	2	0.00%	50.00%	0.00%	0.00%			a problem					
Klaipeda Cruise Terminal Berth 28-33	4	25.00%	0.00%	0.00%	0.00%	a problem							
Klaipeda Cruise Terminal Berth 29	2	100.00%	100.00%	100.00%	0.00%	a problem		a problem		a problem			
Klaipeda Cruise Terminal Berth 30-33	3	0.00%	0.00%	0.00%	0.00%								
Klaipeda PAX terminal XX	1	0.00%	0.00%	0.00%	0.00%								
Malmö Frihamnskajen No. 602	2	0.00%	0.00%	100.00%	0.00%					a problem			
Nynashamn XX	1	0.00%	0.00%	0.00%	0.00%								
Nynashamn SeaWalk	7	0.00%	0.00%	0.00%	0.00%								
Riga XX	4	0.00%	0.00%	0.00%	0.00%								
Riga Pasazieru Terminal	2	0.00%	0.00%	50.00%	0.00%					a problem			
Rønne At anchor	1	0.00%	0.00%	0.00%	0.00%								
Rostock Rostock Berth XX	2	0.00%	0.00%	0.00%	0.00%								
Rostock Rostock Cargo Port	2	0.00%	0.00%	0.00%	0.00%								
Rostock Rostock P31	4	0.00%	0.00%	33.33%	0.00%					a problem			
Skagen Cruise Berth 9	11	0.00%	0.00%	0.00%	0.00%								
St Petersburg XX	7	14.29%	0.00%	0.00%	0.00%	a problem							
St Petersburg Main Passenger Terminal, Berth B	9	0.00%	0.00%	0.00%	0.00%								
St Petersburg Marine Façade Terminal 1 Berth 6	2	50.00%	100.00%	50.00%	0.00%	a problem		a problem		a problem			
St Petersburg Marine Façade Terminal 1 Berth 7	18	5.88%	0.00%	52.94%	0.00%	a problem				a problem			
St Petersburg Marine Façade Terminal 2 Berth 5	5	25.00%	50.00%	0.00%	0.00%	a problem		a problem					
St Petersburg Marine Façade Terminal 3 Berth 3	4	0.00%	25.00%	50.00%	0.00%			a problem		a problem			



# Results – Berth specific

St Petersburg Marine Façade Terminal 4 Berth 1	14	9.09%	54.55%	72.73%	0.00%	a problem	a problem	a problem	
Stockholm XX	11	9.09%	0.00%	0.00%	27.27%	a problem			a problem
Stockholm Frihamnen	3	0.00%	0.00%	0.00%	0.00%				
Stockholm Frihamnen 634	2	0.00%	50.00%	0.00%	0.00%		a problem		
Stockholm Frihamnen 638	17	0.00%	0.00%	81.25%	50.00%			a problem	a problem
Stockholm Stadsgården 167	17	0.00%	0.00%	0.00%	38.46%				a problem
Tallinn XX	10	10.00%	0.00%	0.00%	10.00%	a problem			a problem
Tallinn Berth 24	8	0.00%	12.50%	12.50%	25.00%		a problem	a problem	a problem
Tallinn Berth 25	6	0.00%	0.00%	0.00%	16.67%				a problem
Tallinn Berth 26	15	0.00%	7.14%	14.29%	85.71%		a problem	a problem	a problem
Tallinn Berth 27	30	3.57%	7.14%	53.57%	48.15%	a problem	a problem	a problem	a problem
Visby Berth 7	1	0.00%	100.00%	0.00%	0.00%		a problem		
Warnemünde Warnemünde XX	2	0.00%	0.00%	0.00%	100.00%				a problem
Warnemünde Warnemünde Cruise Terminal Berth 7	13	0.00%	84.62%	0.00%	0.00%		a problem		
Warnemünde Warnemünde Cruise Terminal Berth 8	13	0.00%	7.69%	76.92%	0.00%		a problem	a problem	
Wismar XX									

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# Results – Berth specific

Availability of Tank/Barge/Fixed PRF						
Confirmed tank car/truck available?		Confirmed barge available?		Confirmed fixed PRF available?		
Available	Used?	Available	Used?	Available	Used?	Assessed/used?
37	Total	24	Total	49	Total	54
69%	Percentage of assessed/used berths	44%	Percentage of assessed/used berths	91%	Percentage of assessed/used berths	

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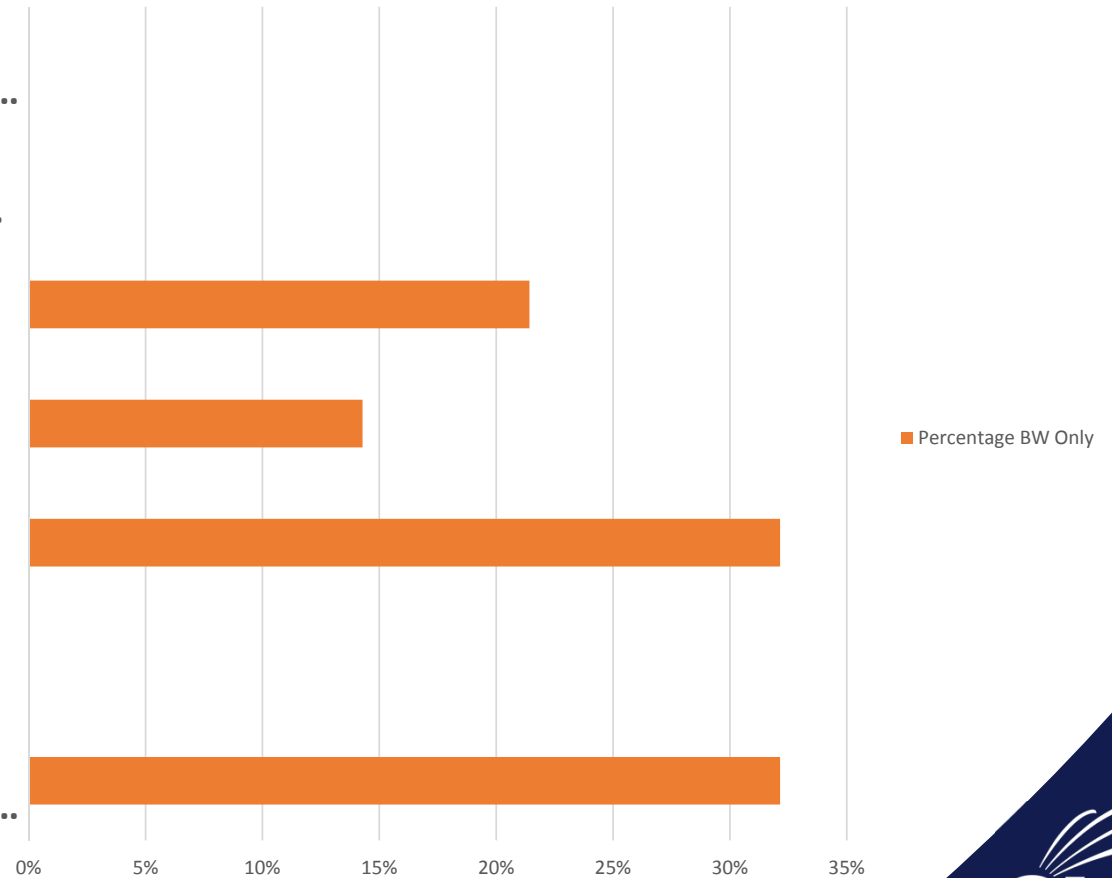
# Results - Black Water only

Intentions to discharge Black Water Only	42	
Percentage problems	45.24%	
Description problem	Amount	Percentage BW Only
Does the cruise ship consider the fees disproportionately high such that they create a disincentive to utilize the PRFs?	9	32%
Was the volume discharged conform the wishes of the ship?	0	0%
When relevant: please indicate the problems encountered by using one of more of the following code letters (A) No facility available; (B) Undue delay; (C) Use of facility technically not possible; (D) Inconvenient location; (E) Vessel had to shift berth involving delay/cost; (F) Unreasonable charges for use of facilities; (G) Other (please specify under "Additional comments")	9	32%
Additional comments	4	14%
In your opinion, is the port facility properly accomodated to meet the needs of the ship?	6	21%
Has or will an inadequacy report as described in MEPC.1/Circ.834 be(en) submitted to the Flag State of the ship?	0	0%
Has or will alleged inadequacies of Port Reception Facilities be reported to the Port State in accordance with the procedure in the WRHP of the port?	0	0%

# Results - Black Water only

Percentage BW Only

- Has or will alleged inadequacies of Port Reception Facilities be reported to the Port...
- Has or will an inadequacy report as described in MEPC.1/Circ.834 be(en) submitted to the...
- In your opinion, is the port facility properly accomodated to meet the needs of the ship?
- Additional comments
- When relevant: please indicate the problems encountered by using one of more of the...
- Was the volume discharged conform the wishes of the ship?
- Does the cruise ship consider the fees disproportionately high such that they...

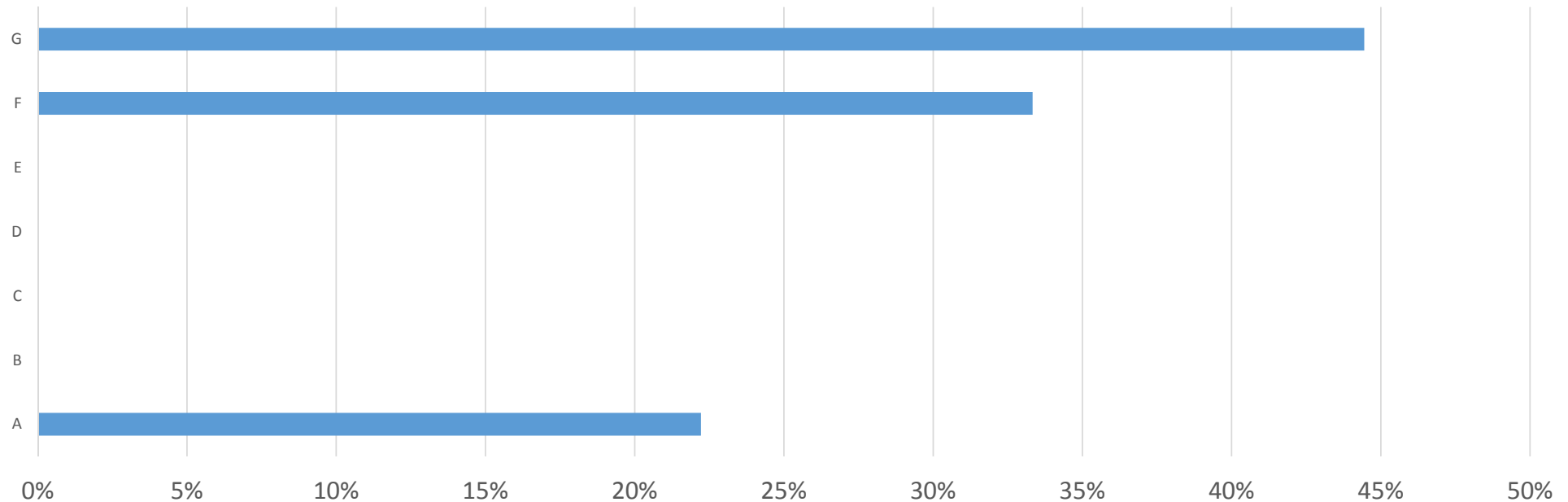


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# Results - Black Water only

Percentage



- (A) No facility available; (B) Undue delay; (C) Use of facility technically not possible; (D) Inconvenient location; (E) Vessel had to shift berth involving delay/cost; (F) Unreasonable charges for use of facilities; (G) Other

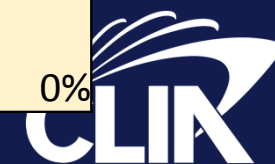
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# Results - Grey Water only

Intentions to discharge Grey Water only	77	
Percentage problems	42.86%	
Description problem	Amount	Percentage
Does the cruise ship consider the fees disproportionately high such that they create a disincentive to utilize the PRFs?	23	35%
Was the volume discharged conform the wishes of the ship?	0	0%
When relevant: please indicate the problems encountered by using one of more of the following code letters (A) No facility available; (B) Undue delay; (C) Use of facility technically not possible; (D) Inconvenient location; (E) Vessel had to shift berth involving delay/cost; (F) Unreasonable charges for use of facilities; (G) Other (please specify under "Additional comments")	21	32%
Additional comments	14	21%
In your opinion, is the port facility properly accomodated to meet the needs of the ship?	8	12%
Has or will an inadequacy report as described in MEPC.1/Circ.834 be(en) submitted to the Flag State of the ship?	0	0%
Has or will alleged inadequacies of Port Reception Facilities be reported to the Port State in accordance with the procedure in the WRHP of the port?	0	0%

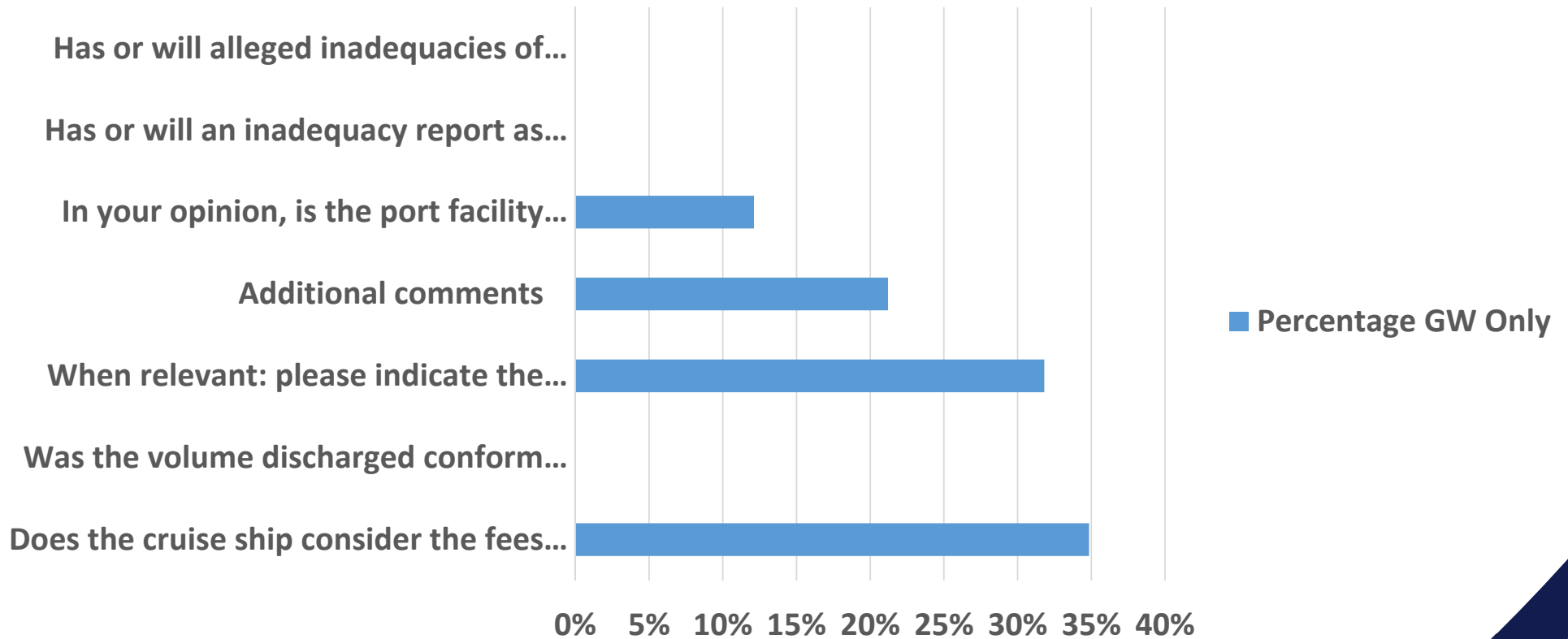
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# Results - Grey Water only

Percentage GW Only

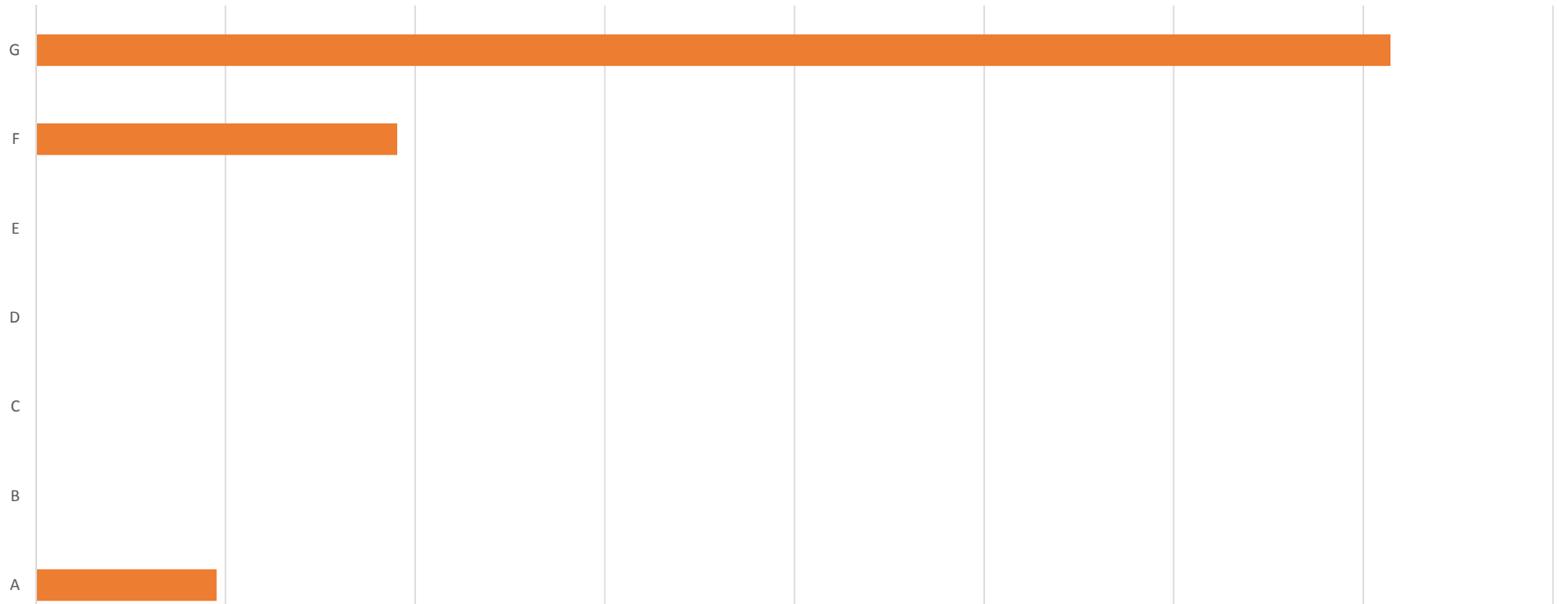


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# Results - Grey Water only

Percentage



- (A) No facility available; (B) Undue delay; (C) Use of facility technically not possible; (D) Inconvenient location; (E) Vessel had to shift berth involving delay/cost; (F) Unreasonable charges for use of facilities; (G) Other

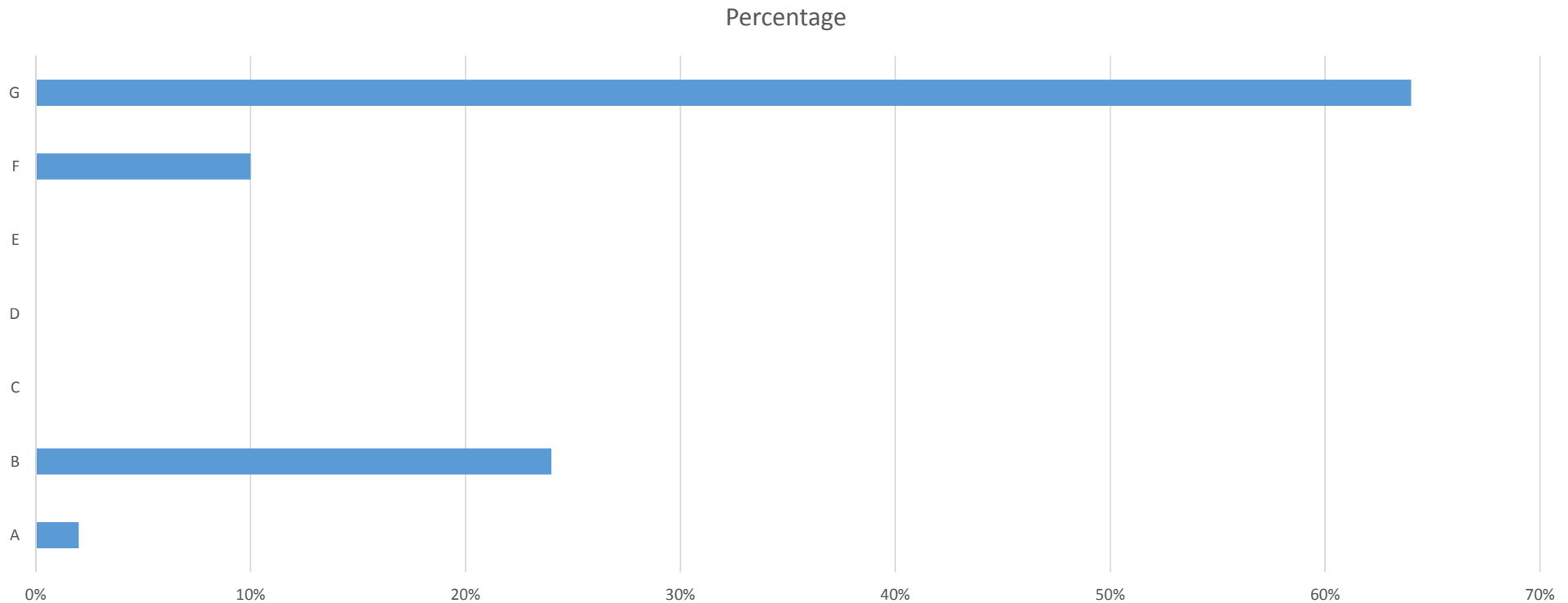
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# Results - Mixed BW & GW

Intentions to discharge mixtures of Black and Grey Water only	247	
Percentage problems	39.68%	
<b>Description problem</b>	<b>Amount</b>	<b>Percentage Mixed BW&amp;GW</b>
Does the cruise ship consider the fees disproportionately high such that they create a disincentive to utilize the PRFs?	78	45%
Was the volume discharged conform the wishes of the ship?	0	0%
When relevant: please indicate the problems encountered by using one of more of the following code letters (A) No facility available; (B) Undue delay; (C) Use of facility technically not possible; (D) Inconvenient location; (E) Vessel had to shift berth involving delay/cost; (F) Unreasonable charges for use of facilities; (G) Other (please specify under "Additional comments")	50	29%
Additional comments	22	13%
In your opinion, is the port facility properly accomodated to meet the needs of the ship?	14	8%
Has or will an inadequacy report as described in MEPC.1/Circ.834 be(en) submitted to the Flag State of the ship?	0	0%
Has or will alleged inadequacies of Port Reception Facilities be reported to the Port State in accordance with the procedure in the WRHP of the port?	11	6%

# Results - Mixed BW & GW



- (A) No facility available; (B) Undue delay; (C) Use of facility technically not possible; (D) Inconvenient location; (E) Vessel had to shift berth involving delay/cost; (F) Unreasonable charges for use of facilities; (G) Other

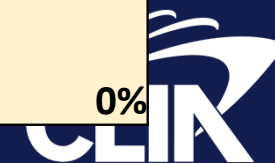
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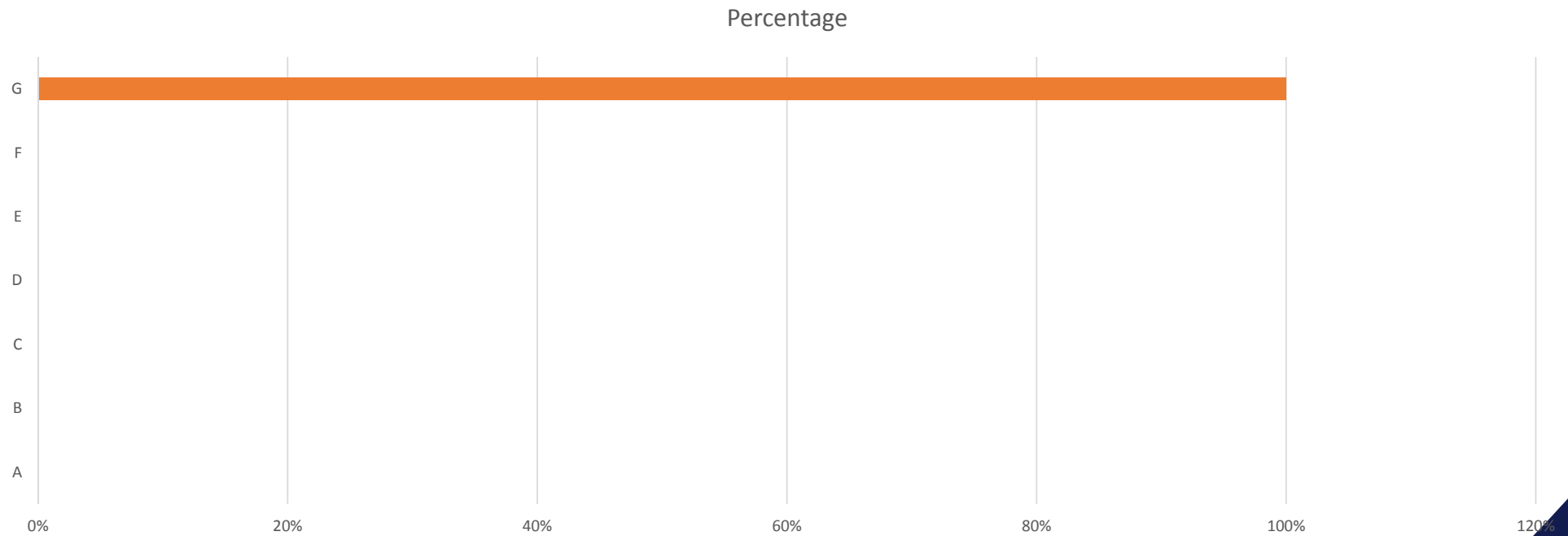
# Results - Bio-Residue only

<b>Intentions to discharge Bio-Residue</b>	<b>72</b>	
<b>Percentage problems</b>	<b>100.00%</b>	
<b>Description problem</b>	<b>Amount</b>	<b>Percentage Bio-Residue</b>
<b>Does the cruise ship consider the fees disproportionately high such that they create a disincentive to utilize the PRFs?</b>	<b>72</b>	<b>97%</b>
<b>Was the volume discharged conform the wishes of the ship?</b>	<b>1</b>	<b>1%</b>
<b>When relevant: please indicate the problems encountered by using one of more of the following code letters (A) No facility available; (B) Undue delay; (C) Use of facility technically not possible; (D) Inconvenient location; (E) Vessel had to shift berth involving delay/cost; (F) Unreasonable charges for use of facilities; (G) Other (please specify under "Additional comments")</b>	<b>1</b>	<b>1%</b>
<b>Additional comments</b>	<b>0</b>	<b>0%</b>
<b>In your opinion, is the port facility properly accomodated to meet the needs of the ship?</b>	<b>0</b>	<b>0%</b>
<b>Has or will an inadequacy report as described in MEPC.1/Circ.834 be(en) submitted to the Flag State of the ship?</b>	<b>0</b>	<b>0%</b>
<b>Has or will alleged inadequacies of Port Reception Facilities be reported to the Port State in accordance with the procedure in the WRHP of the port?</b>	<b>0</b>	<b>0%</b>

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# Results - Bio-Residue only



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# Results - All Discharges

## Combined discharges overview

HAS OR WILL ALLEGED INADEQUACIES OF PORT RECEPTION FACILITIES BE REPORTED TO THE PORT STATE IN...

HAS OR WILL AN INADEQUACY REPORT AS DESCRIBED IN MEPC.1/CIRC.834 BE(EN) SUBMITTED TO THE FLAG STATE...

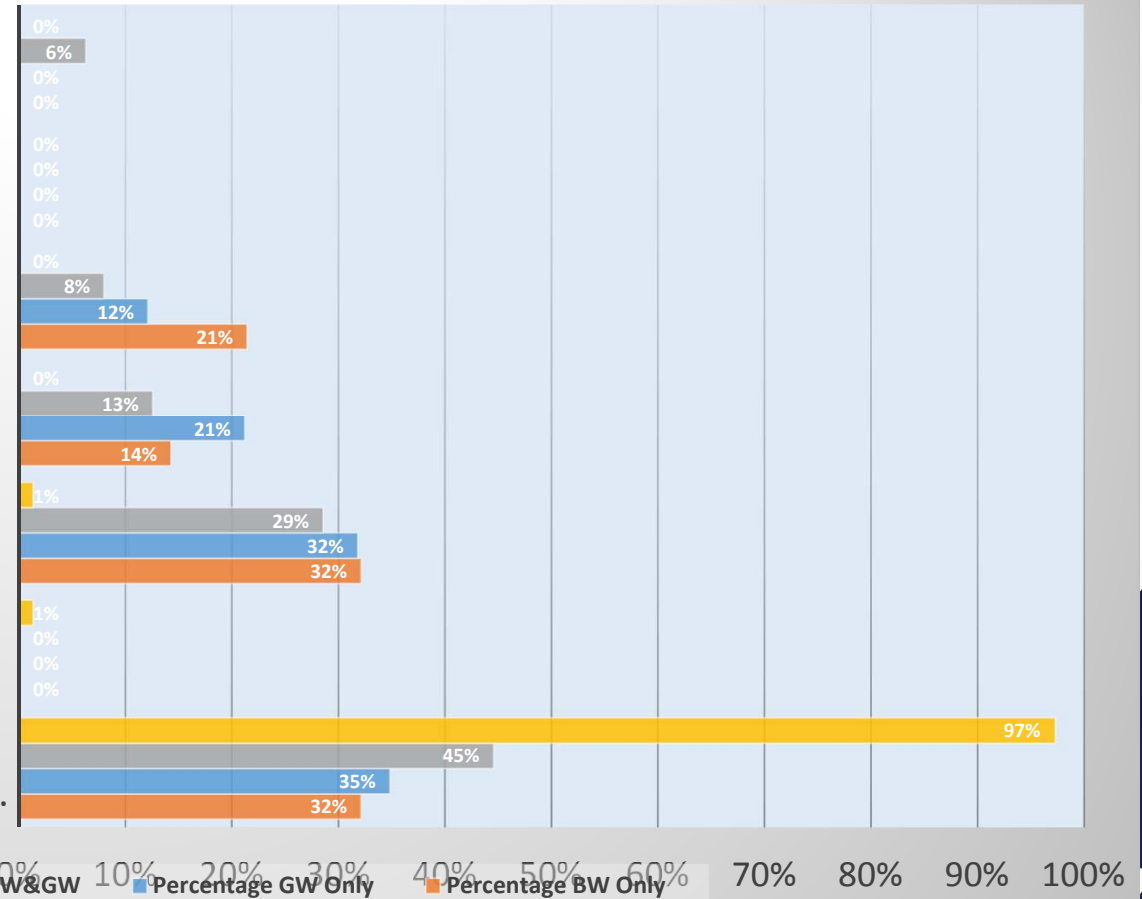
IN YOUR OPINION, IS THE PORT FACILITY PROPERLY ACCOMODATED TO MEET THE NEEDS OF THE SHIP?

ADDITIONAL COMMENTS

WHEN RELEVANT: PLEASE INDICATE THE PROBLEMS ENCOUNTERED BY USING ONE OF MORE OF THE...

WAS THE VOLUME DISCHARGED CONFORM THE WISHES OF THE SHIP?

DOES THE CRUISE SHIP CONSIDER THE FEES DISPROPORTIONATELY HIGH SUCH THAT THEY CREATE A...



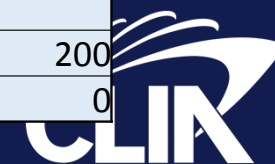
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# Results – Ships - Pumping capacity

Pumping capacity							
BLACK WATER ONLY		GREY WATER ONLY		Mixture Black and Grey WATER ONLY		Delivery of Bio-Residue	
Max. Practice	Reported max	Max. Practice	Reported max	Max. Practice	Reported max	Max. Practice	Reported max
0	18	0	100	100	100	0	18
0	70	0	70	127	70	0	70
0	0	0	0	129	0	0	0
0N/A		47	100	0N/A		0N/A	
55	150	55	105	116	40	34	75
0N/A		0	130	341	250	300	250
0N/A		0N/A		97N/A		61	150
0	0	0	0	84	0	0	0
95	40	86	80	86	80	0	80
0	30	0	15	28	250	31	250
60	60	60	30	60	60	0	60
31	0	0	0	0	30	1	30
88	55	198	114	0N/A		0N/A	
120N/A		120N/A		115	200	4	200
0N/A		0	0	0	0	0	0

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# Results – preparing pumps

L pump prepared/primed with seawater or technical water				
	L 1 BW Only Discharge	L 2 GW Only Discharge	L 3 Mixed BW&GW Discharge	L 4 Bio-residue Discharge
number discharge operations	47	88	235	85
pump primed	9	8	103	44
percentage operations	19%	9%	44%	52%
Average volume used			0.08	0.07

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# Results – Ship’s impressions

What were the main challenges that you experienced?

The holding of gray water while doing the overnight in St. Petersburg	
Graywater capacity due to AWP reduced capacity	
Excessive GW production due to treatment limitation from the AWP system. AWP system can not accommodate treatment of all GW.	
Many hours in Port Conditions/Close Loop	
Arranging trucks in order to have a constant flow	Overall, the Port of Kiel is a very managed port and there is no real issues that I have with the port operations. Well organized and prepared for our discharges.
Lack of time for incineration.	
Very demanding cruises for 2nd Engineer Environmental who has limited man power to be able to dispose of effluent (oily bilge, oily sludge, TS, OTH) while alongside in port. It is not worth time and manpower to set up the operation in CPH to dispose of 5 m3 or 7 m3 of bilge/oily sludge (maximum quantity included in port fees.	Especially when there are other operations going on at same time - example bunkering caustic soda, bunkering fresh water, etc. On turnaround day CMP we have waste off loading and luggage operations right next to bunker stations.
All operations were done properly, no challenges so far.	very good service in all port, except for St. Petersburg where it is very expensive .
Copenhagen - Langelinie Pier during turnaround	
retention during 2 overnights at St Petersburg	great service at most ports

# Some preliminary conclusions

- Height of the fees is still the major concern (also causing ships to not “intent to discharge”).
- Fixed PRFs are available at 91% of assessed (...) berths.
- Reporting of inadequacies via IMO or more anonymously via the EU system almost doesn't take place at all.
- Still concerns regarding low pumping rates and logistical and operational problems
- However, compared to 2017; less other operational problems reported
- Problems with H2S levels mentioned in commentary sections
- Experiences differ per port, per berth and per ship
- Moving to another berth within a port is not “adequate”; information via GISIS / SafeSeaNet (EU) / HELCOM overviews should be berth-specific

Overview experiences will be shared with all parties

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# CLIA Overview Environmental Technologies and Practices

- Overview also includes information on sewage treatment systems on board
- Latest update August 2018
- Updated and renewed yearly
- Available online:

<https://res.cloudinary.com/dix5tzpvs/image/upload/v1543611360/CLIA/404%20Image%20backups/2018-environmental-technologies-and-practices-document.pdf>

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