




Uglund Marine Services AS

Environmental Report

2019

Prep: JAD 	Checked: AOK 	Approved: ØB 
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5 ENVIRONMENT

5.1 Vessels

5.1.1 Oil spills

No oil spill to sea reported during 2019

5.1.2 Environmental programs (KPIs)

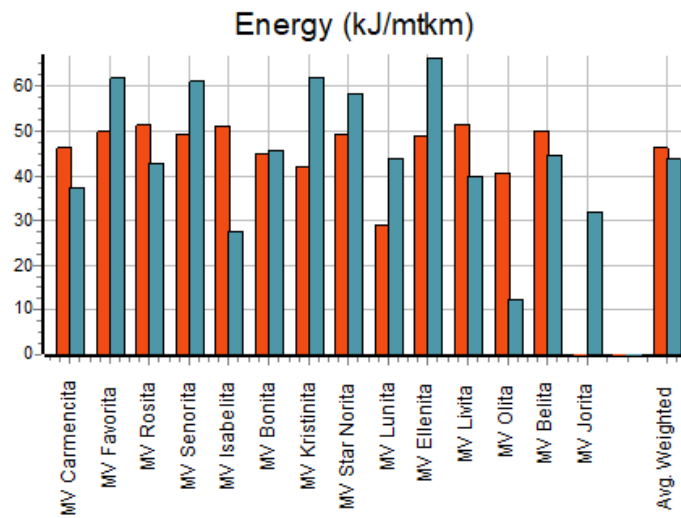
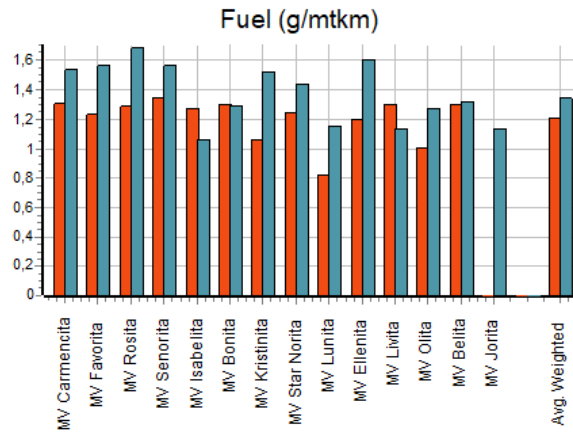
Key Performance Indicators (KPI) - 2019								
Area	Indicator text	Action(s)/monitoring to reach target	Resp.	Goal 2019	Q1-ytd	Q2-ytd	Q3-ytd	2019
Environment 1	Number of oil spill to sea. (Fleet)	General awareness of regulations, Reporting all incidents in Company reporting system	TO	0	0	0	0	0
Environment 2	Bulk: Landed sludge vs. burned onboard	Encourage vessel management to land sludge, Budget for landing sludge to be considered	TO	80 %	96 %	94,25 %	90,78 %	92 %
Environment 3	"Juanita": Reduction of fuel (transit) (2017 baseline)	Eco speed to be kept below need for additional engine Voyage to be planned with Charterer/Installation	LJ	1,50 %	6,70 %	2,30 %	-2,10 %	1,42 %
Environment 4	"Juanita": Hybrid - % time in port connection to shore power	Port stay to be planned with Port and Charterer to avoid shift of quay	LJ	65 %	50 %	63,23 %	66,40 %	60,00 %
Environment 5	"Juanita": Hybrid - Fuel reduction in DP operation (2017 baseline)	Request loading/unloading offshore at sheltered side	LJ	15 %	17,80 %	6,17 %	4,70 %	13,70 %
Environment 6	"Juanita": Hybrid - Generator reduced running hours annually (2017 baseline)	Planning use of power in different operations mode	LJ	4500 H (1100 pr Q)	805 H	1718	1138	3040
Environment 7	Uglen: % time shore connection (where shore connection is available)	Request for quay with available shore connection	LJ	70 %	N/A	100 %	N/A	100 %

5.1.3 Consumption/Energy monitoring– Bulk.

PSV and Uglen are excluded due to the nature of cargo versus distance sailed.

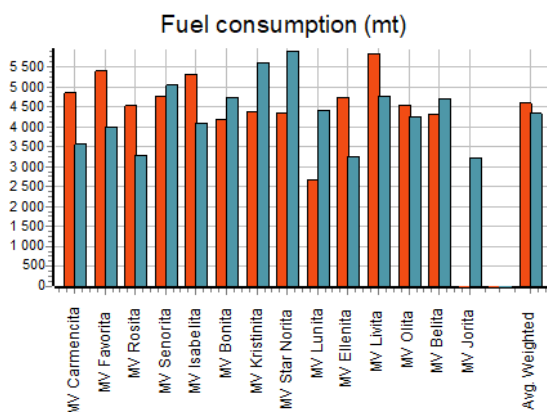
■	2018
■	2019

Fuel oil has been monitored during year 2018, with results as below:



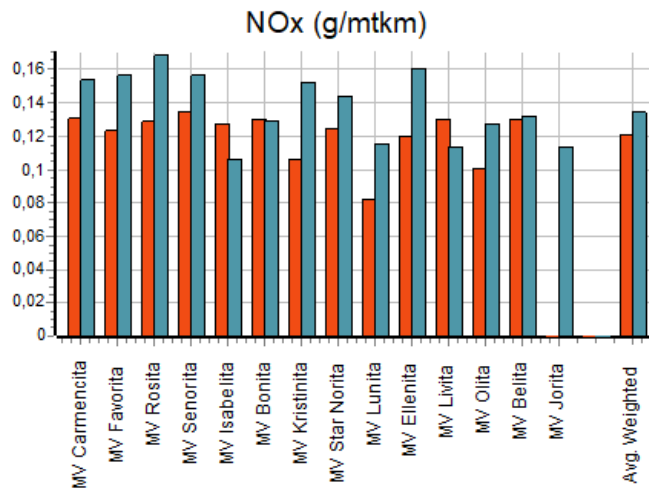
The specific energy consumption from our vessels compared with other means of transport is shown in the table below.

Energy Use	UMS vessels 2014 / 2015 / 2016 / 2017 / 2018 / 2019	Rail - Electric	Rail - Diesel	Heavy Truck	Boeing 747-400
Wh/tonnekm	14,0 / 12,9 / 13,8 / 14,49 / 12,12 / 12,15	43	67	180	2000



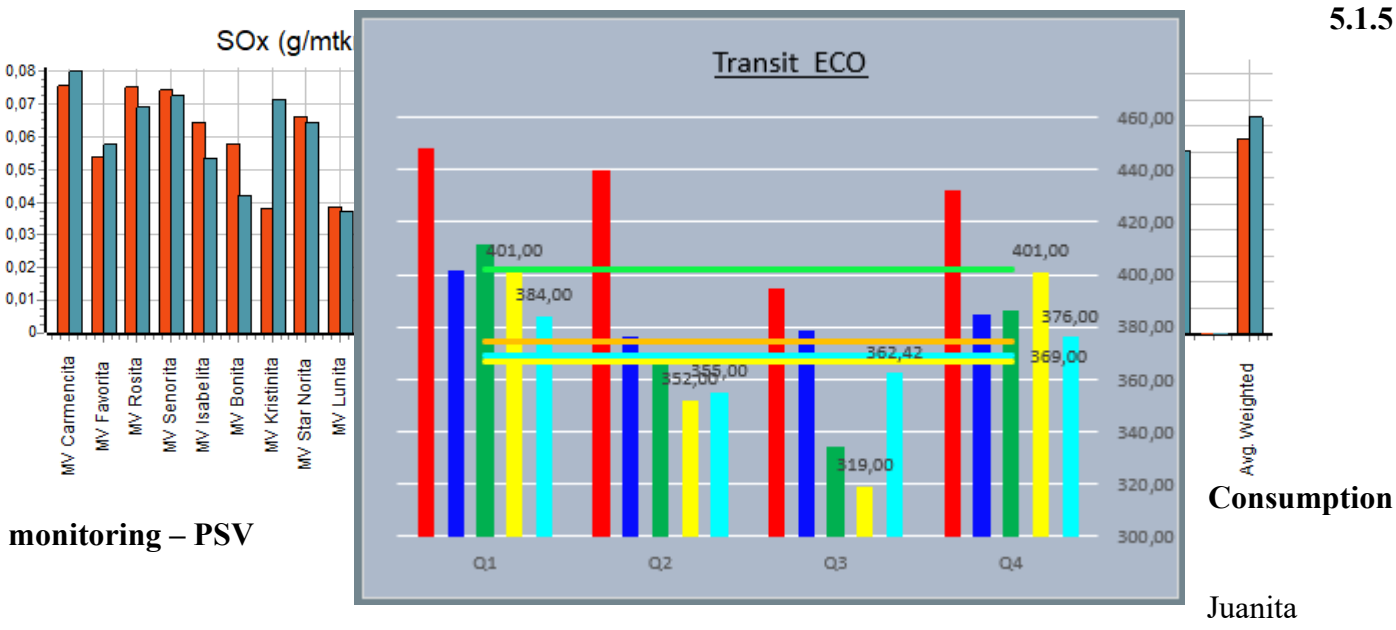
5.1.4 Emission monitoring – Bulk.

PSV and Uglen are excluded due to the nature of cargo versus distance sailed.



The air emissions resulting from combustion and burning of fuel oil from our vessels compared with other transportation means is illustrated below.

Emissions (g/tonnekm)	UMS vessels 2014 / 2015 / 2016 / 2017 / 2018 / 2019	Rail - Electric	Rail - Diesel	Heavy Truck	Boeing 747-400
CO ₂	4,3 / 4,2 / 4,5 / 4,2 / 3,8 / 4,2	18	17	50	552
SO _x	0,059 / 0,066 / 0,060 / 0,068 / 0,061 / 0,053	0.01	0.00005	0.00006	0.17
NO _x	0,138 / 0,14 / 0,14 / 0,14 / 0,12 / 0,14	0.044	0.35	0.31	5.69



monitoring – PSV

	2015
	2016

	2017
	2018
	2019

KPI 2019 - Juanita				
KPI ID	KPI text	Goal 2019	Act. 2019	Comments
Envi. 03	Reduction of fuel	1, 5%	1,4%	Actual figures 2019 is due to increased draft (cargo), and higher significant wave hight
Envi. 04	% shore connection in port	65%	60%	Difficulties with shore side connection at Mongstad during 2019
Envi. 05	Reduction of fuel in DP	15%	13,7%	KPi related to DP will be removed for 2020 KPI. Monitporing of fuel will continue
Envi. 06	Generator reduced running hours (annually	4500 H	3040 H	Partly due to batteries on sjhore fro repolacements and partly difficulties with shore side connection at Mongstad

5.2 Office

The office operation consumes energy for heating, lighting and cooling purposes in addition to other office equipment (office machines/computers etc.). The consumed energy is virtually only electric power. An oil-fired boiler is in place as backup for heating, and tested at regular (quarterly) intervals for contingency purposes. The raw materials consumed are mainly paper and tap water. Office equipment and utensils contribute to a lesser degree.

5.2.1 Environmental Programs 2019

Grimstad

1. Personnel Files to be established on digitized formats. This will save paper and make filing more efficient.
2. Reduce number of copy machines.
3. Consider establishing charger stations for employees el.cars . NB: pending clarification from Nymo as to location of charger stations

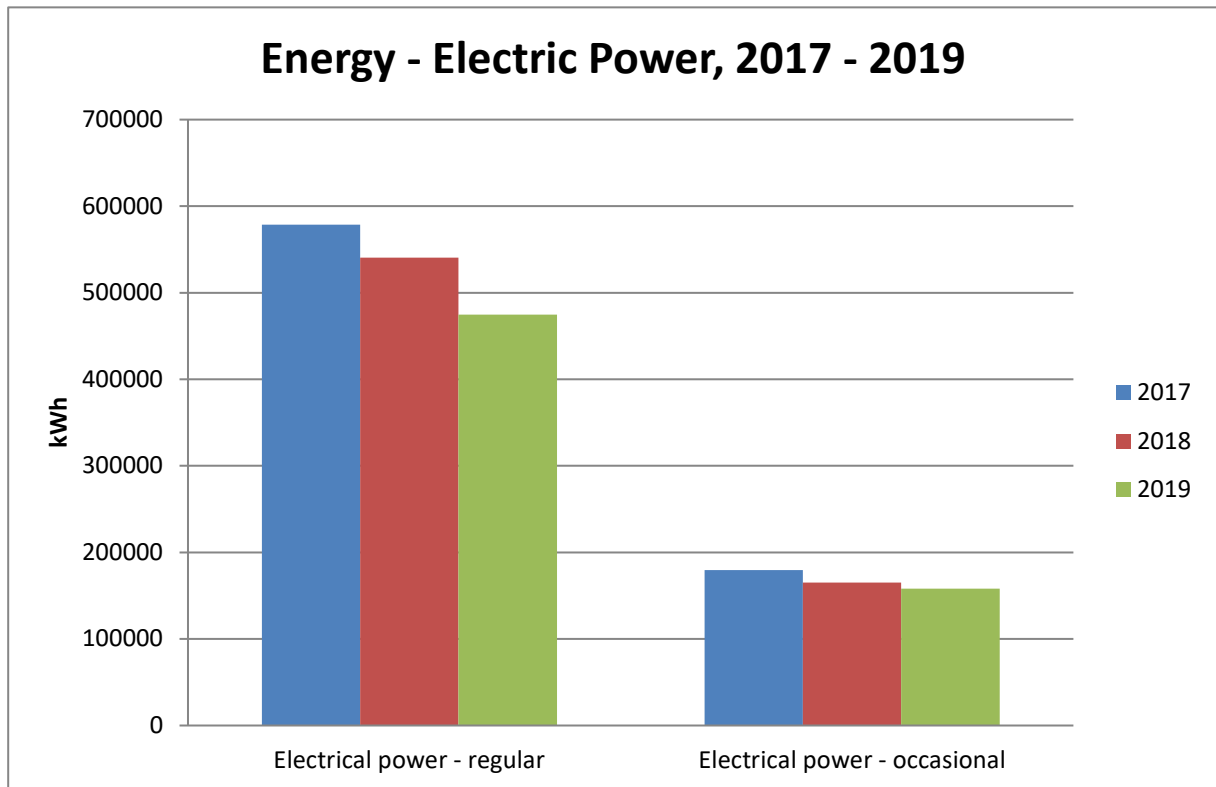
Stavanger

1. Reduce print outs of paper.
2. Recycling of garbage

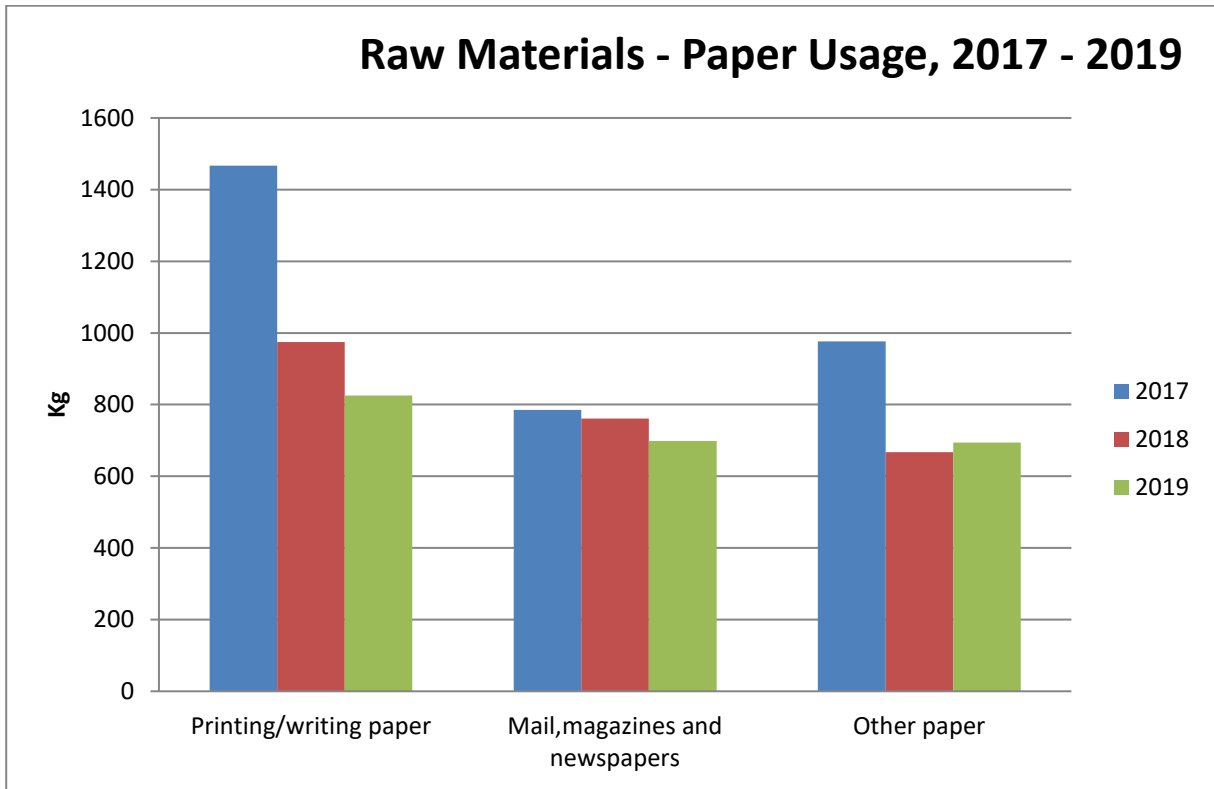
- 3. Encourage to use public transport or bicycle for commuting
- 4. Increase use of video meetings vs travelling to meetings

5.2.2 Consumption and Emission Monitoring

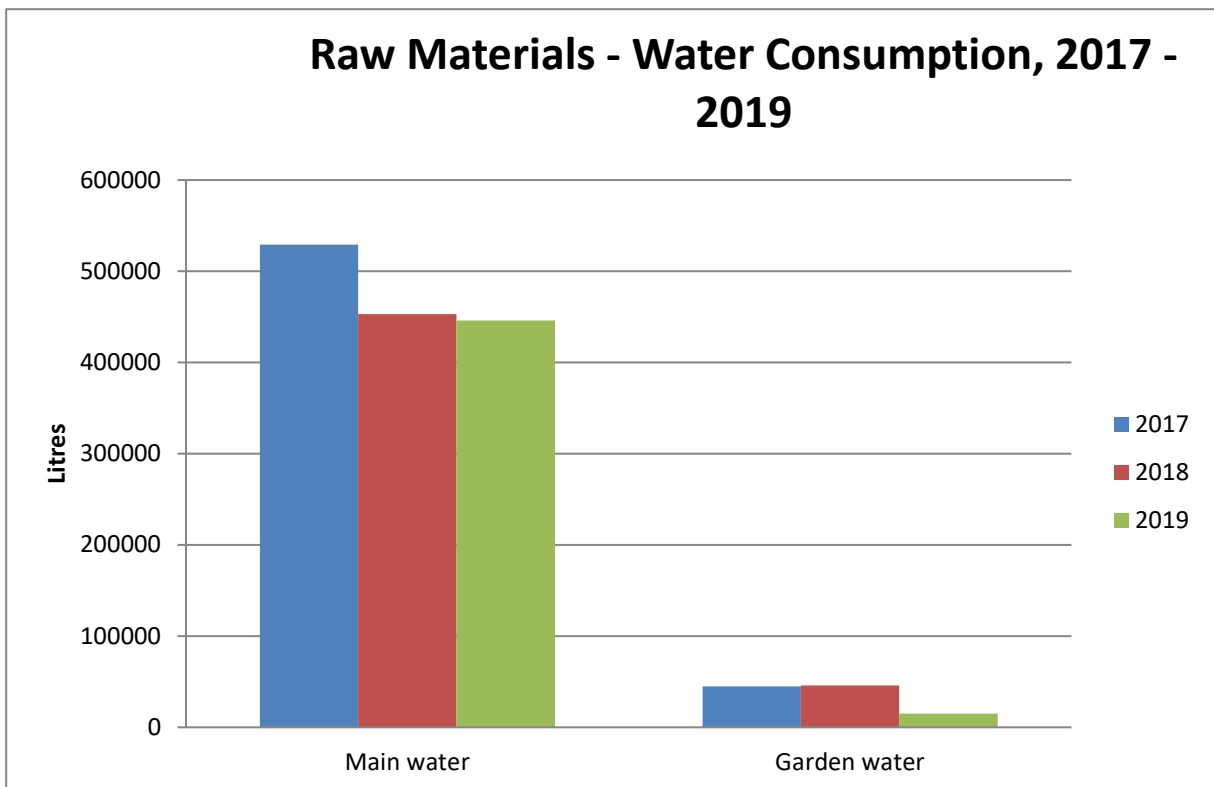
The office operation consumes energy for heating, lighting and cooling purposes in addition to other office equipment (office machines/computers etc.). The consumed energy is mainly electric power. An oil-fired boiler is in place as backup for heating, and tested quarterly for contingency purposes. Note the oil-fired boiler will be phased out as per national regulation. During 2015 an emergency diesel generator was installed and tested. Testing of the generator at regular intervals takes place to maintain the required power contingency security, which consumes diesel and contributes to emissions. Consumed raw materials are mainly paper and tap water. Office equipment and utensils contribute to a lesser degree.



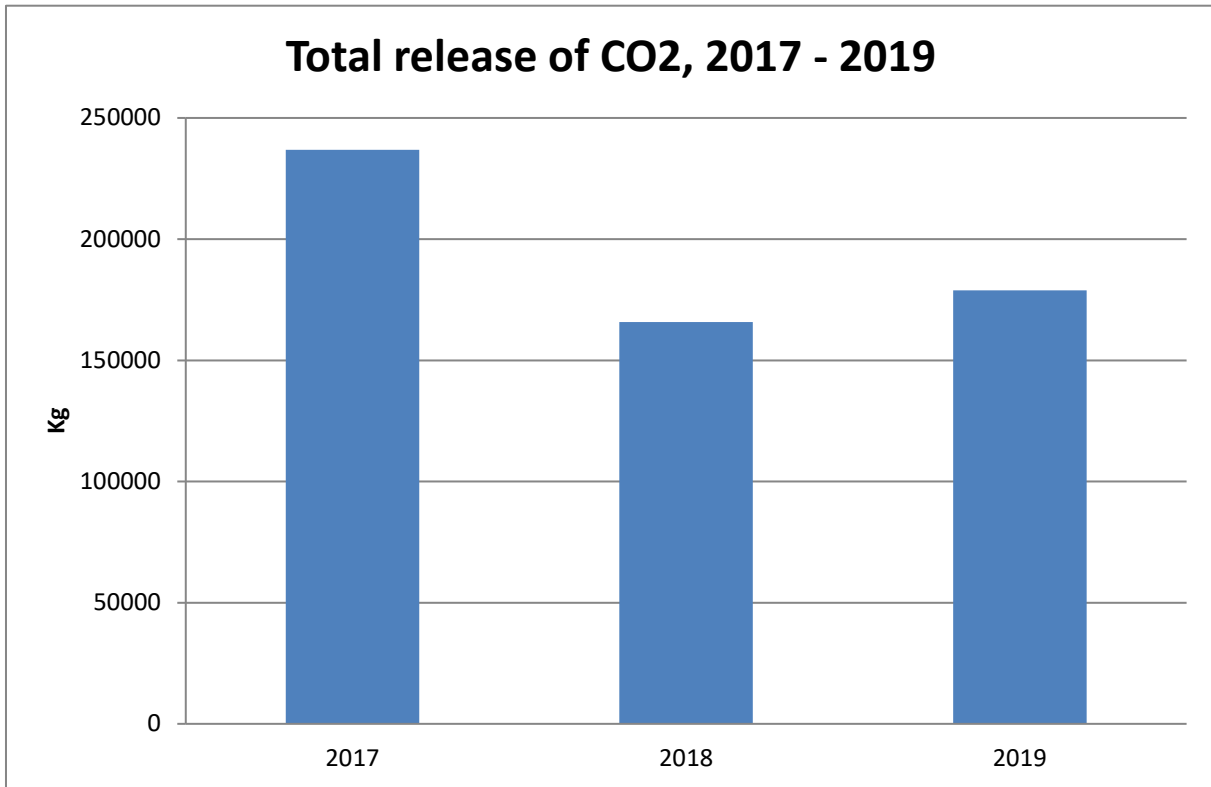
Regular power increased in 2017 as we had in addition to normal drift, computer equipment for approximately 60 people in large parts of the year. It got back to a more normal level in 2018. Occasional power is only for heating and here we can see better regulation in 2018 as well as further reduction after upgrading the SD facility in 2017 compared to 2016. This positive trend continues in 2018 and 2019.



The usage of printing/writing paper, and magazines and newspaper decreased from 2017-2019. Work to reduce paper consumption continues. The company encourages reading magazines and newspapers electronically. Together with the first full year of electronic board papers is no paper/copies to the board members or management, resulted in a strong decrease in 2018. The use of other paper (toilet paper) increased from 2016-2017 but is here shown as a high number in 2017. NYMO/Statoil staff is the explanation for this. In 2018, we are back to a more normal level. The increase in other paper in 2019 can be attributed to the disposal of paper originals/copies as a result of digitizing these files.



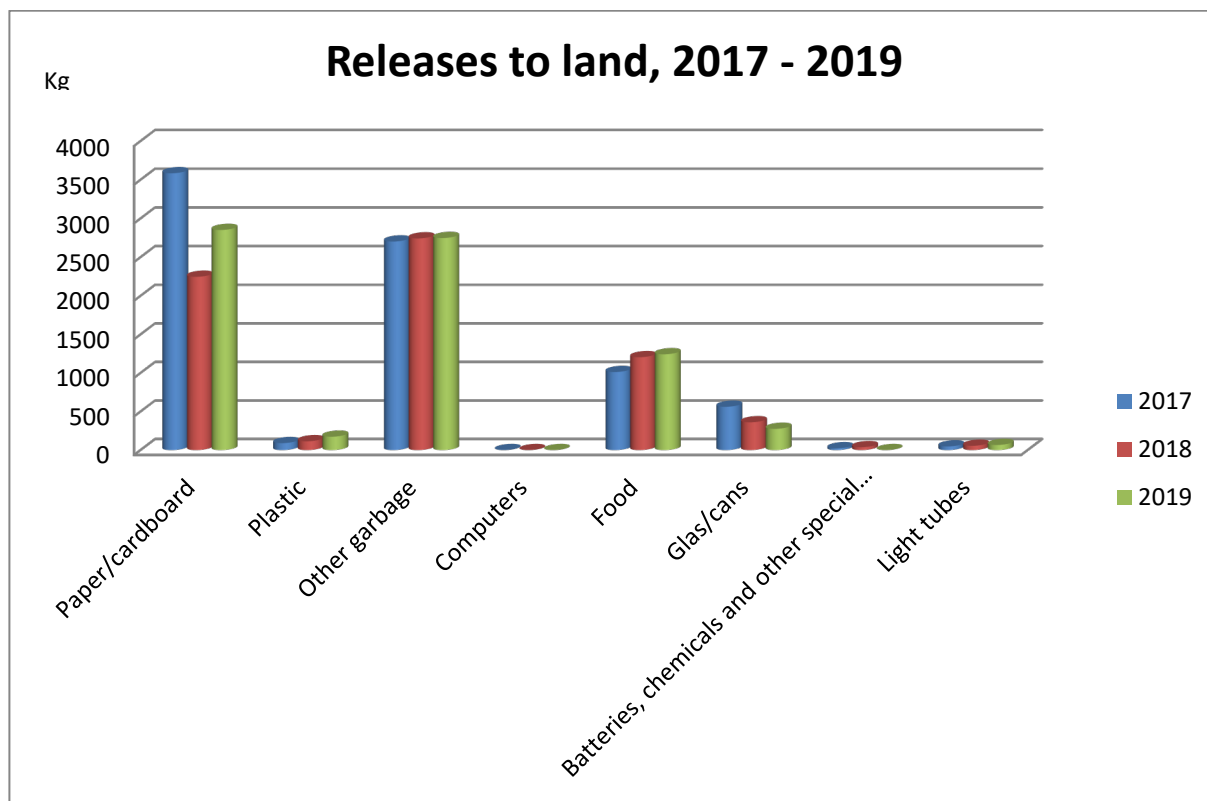
The use of main water increased in 2017, and NYMO staff is the explanation for the relatively high number in that year. Garden watering was historically low in 2017, there was generally a ban on watering through the summer. This low level continues in 2018 and 2019.



Reporting of releases to air is limited to the effect of employees travel activities, where CO2 emissions are accounted for, and the use of the oil fired boiler which has only been test a few time during the last years. During 2015 an emergency diesel generator has been installed and testing continued into 2016, 2017, 2018 and 2019. Testing the generator at regular intervals to maintain the required power contingency security will consume diesel and contribute to emissions. 2017 is the first full year of fuel/emission's measurement.

Office staff are recommended not to use air transport for business in the Oslo area and encouraged to use the public long distance bus and or train transportation. A significant portion of the total CO2 releases are caused by air flights linked to the overall activity of the company. One specific explanation for the high number in 2017 is attributed to the delivery of several new buildings from Japan during 2017 and the associated traveling in preparation.

The increase in emissions for 2019 is primarily due to travel and two ship naming ceremonies.



A lot of paper from NYMO/Statoil in 2017, especially when cleaning at the end of the stay added to the paper statistics. The environmental program for 2019 (1- *Personnel Files to be established on digitized formats. This will save paper and make filing more efficient*) result in high level of paper to be recycled in 2019. This will continue in 2020, and we expect to see the level of paper release to land increase, but the amount of paper into the office will decrease.

5.3 Global Reporting Initiative (GRI-G4)

Awaiting data from external sources. Will be updated with 2019 figures once data is available.

Category: Environmental

GRI – G4 EN3 - Energy Consumption within the Organization		2016	2017	2018
a)	Total fuel consumption (11 ships) from non-renewable sources	1795 TJ (12vsl)	2476 TJ (15vsl)	2225 TJ (15vsl)
b)	Total fuel consumption from renewable sources	None	None	None
c)	Total electricity consumption (office)	2,7 TJ	2,7 TJ	2,6
d)	Total energy sold	N/A	N/A	N/A
e)	Total energy consumption (ship and shore)	1792,3 TJ	2478,7 TJ	222,4 TJ
f)	Methodology: Continuous reporting of actual values			
g)	Source: DnV Services laboratory analysis of fuel energy content			

GRI – G4 EN6 - Reduction of Energy Consumption		2016	2017	2018
a)	Reduction of energy consumption (14 vsl 2010 - 11vsl 2016)	973	292 TJ	543 TJ

b)	Type(s) of energy (ships/office)	Fuel oil/Electricity	Fuel oil/Electricity	Fuel oil/Electricity
c)	Baseline for calculation	2010-2016	2010-2017	2010-2018
d)	Methodology: Continuous reporting of actual values			

GRI – G4 EN8 – Total water withdrawal by source				
		2016	2017	2018
a)	Total water withdrawn from municipal water supply	742 mT	669 mT	499mT
b)	Methodology: Continuous reporting of actual values			

*Increased total water is due to Nymo staff renting areas in UMS building

GRI – G4 EN23 – Total volume of Waste				
		2016	2017	2018
a)	Total volume of hazardous and non-hazardous waste (ship)	777m3	794m3	724m3
b)	Source: Disposed directly by the Organisation and actual values reported.			

GRI – G4 EN24 – Significant spills				
		2016	2017	2018
a)	Total number and volume of significant spills	NIL	NIL	NIL
b)	Location and material	N/A	N/A	N/A
c)	Impact of significant spills	N/A	N/A	N/A

6 OCCUPATIONAL HEALTH AND SAFETY SYSTEM (OHSAS)

6.1 Targets and improvement programs 2019 - Ships

1. Accident reduction program from 2017 to continue with focus upon Risk Management during visits to vessels (Internal Audits). Ongoing. Part of HSEQ onboard presentation.
2. A new Risk Assessment Matrix implemented and taken into use. This matrix includes all identified activities with corresponding hazards onboard the various vessel segments.

6.2 Targets and improvement programs 2019 - Office

1. Avantas program – Still encourage good exercise behaviour, with following goals:
 - 90% participants. Actual 2019: 86,8%
 - In average 900 points each month. Actual 2019: 825
 - 35 min daily activity: Actual 2019 35 min. daily activity.
2. Massage treatment subsidizing to be considered. Still pending during