

Environmental objectives and targets

Unix established specific Environmental Objectives and Targets to comply with the Company's Environmental Policy. Company has taken various initiatives to improve its environmental performance. Some initiatives are highlighted as below:

- ✚ Dedicated staffs assigned for monitoring and review vessels monthly MARPOL report, chief engineer's self-audit report, Oil record book analysis and other ECP related documents review.
- ✚ Conduct Fleet Engineering Survey annually and follow up on recommendations.
- ✚ Modification of bilge line across fleet basis feedback from Fleet engineering survey.
- ✚ Fabrication of a secure locker for keeping portable pumps & hoses outside engine room and controlled usage of same.
- ✚ Permanent piping for grey water collection to aft peak tank during docking. Class approved documentation for temporary arrangement for older vessels not fitted with dedicated grey water holding tank.
- ✚ Annual calibration of OCM of OWS and ODME.
- ✚ Encourage shore disposal for sludge / bilge.
- ✚ IOPPC Supplements for all vessels were standardized.
- ✚ Fitted garbage compactor on all fleet vessels.
- ✚ Refrigerant recovery kits, sharp containers, bio-hazards bags and resin coated garbage bags were supplied to all fleet vessels.
- ✚ EnviroManager software – provided onboard all fleet vessels.
- ✚ Introduced simplified "Compliance reporting" through Unix Website.
- ✚ Pre-joining declaration by crew on environmental commitment & prior sign off declarations by crew for environmental compliance, has been introduced.
- ✚ Improved EMS procedures, revised audit, and self-inspection checklists.
- ✚ Minimum stock of spares for Environmentally Sensitive Equipment (OWS, ODME, Incinerator & STP) were listed out and a Rapid Replacement Process was set out for replenishment of these spares.
- ✚ Environmental Safety Campaign carried out annually.
- ✚ Use of electronic oil record books will be implemented on 10 vessels during 2021.
- ✚ Old type of OCM compliant with MEPC 60(33) were replaced with Bilgmon-488 (Compliant with MPEC 107(49) on older vessels. Now, All vessels of the fleet are fitted with OCM compliant with MEPC 107(49).
- ✚ Improved sealing, tagging and overall seal/tag management.
- ✚ Proprietary videos produced to enhance EMSCP initial and annual refresher training. Annual training matrix provided for onboard monthly training on EMS.
- ✚ Identified significant aspects involved with various operations performed by company and fleet vessels and improved procedural and operational controls to prevent pollution, reduce source reductions of effluents with a view to continual improvement.

Presently following Environmental KPIs are measured by company and have plan to include more KPIs in coming years.

KPI	Quantifier	Last year result(2020)	KPI for 2021	Remarks
Pollution	Liters spilled into the sea	0	0	Operational and accidental spill into sea (during cargo operation, tank cleaning operation, bunkering operation, de ballasting operation and during casualties. Company has robust procedure in place to prevent pollution during various operation and mitigate pollution resulting from casualties.
Loss of primary containment (LOPC)	Total reports in the fleet	4	3	Company has strict procedures and maintenance program to prevent any loss of containment. The 4 cases recorded last year are minor in nature. Nonetheless, thorough investigation conducted, root causes identified, and preventive measures implemented across fleet to prevent reoccurrence. The hydraulic hoses are replaced every 5 years. Cargo hoses and portable connections pressure tested annually. Independent double verification cargo/bunker line up has been reinforced in the fleet to prevent any loss of containment.
Fines / Citations	Number of occurrences	0	0	Company has strict procedure in place to prevent Fines / Citation / warning due to non-compliance with MARPOL Annex I/II, Sewage, Garbage, Air pollution and Ballast water management. Regular EMS training both ashore and onboard are conducted to raise awareness and improve compliance.
Freon gas consumption (R22 only)	Per Vessel (KG)	5.4	4	Refrigerant pressure test device and recovery kit supplied to all fleet vessels and training conducted on the usage of recovery kit.
To minimize amount of garbage disposed to shore facility and in the sea	M3 Per vessel per year	40.75	35	All fleet vessels provided with garbage compactors. Vendors are reminded to bring back packaging materials after supply of stores / spares. Procedures developed to minimize usage of single use plastics (SUP). Regular training conducted to promote reduce, reuse, recycle to raise awareness on this KPI.
Bilge water discharge through OWS	Per Vessel (m3)	98	Less than last year	Company still in monitoring phase for this KPI. Different vessel type generates different amount of bilge. Improved procedures and maintenance routine introduced. Regular shore and onboard training conducted to raise awareness. Monthly MARPOL report reviewed by superintendent to detect any issues and arrange prompt support to address the issues.

Quality of tank cleaning	Inverse of percentage of tanks rejected/ cargo off spec over the total number of tanks cleaned	99.9%	99.9%	The fleet vessels clean almost 7000 tanks per year. Due to robust operational and procedural control and high skill of our seafarers, failure of tanks for loading only few. Company would like to maintain this high standard to minimize impact on environment arising from over cleaning tanks due to failure. Company also introduced SPECTROPHOTOMETER onboard and work in progress to improve efficiency, reduce tank cleaning time and reduce impact on environment by using new technology.
EEOI of vessel	Per Vessel (Total)in g/T/Mile	24.3	22.3	Vessel are provided SEEMP (Ship Energy Efficiency Management Plan). The monitoring of EEOI (Energy Efficiency Operational Index) and CO2 index as required by IMO are being conducted. Company has various initiatives such as propeller polishing, propeller boss capping arrangement, hull cleaning measures, etc. to reduce fuel consumption and improve energy efficiency.
CO2 generation of vessel	Per Vessel (Total) in Kg/mile	376	272	The EEOI and CO2 index is highly dependent on the operational capability of arranging vessel to carry or transport cargo at full capacity of cargo at any passage, as possible which reflect the efficient usage of vessels. Our commercial team endeavor best to operate vessels efficiently to achieve the set target.
Paper consumption in office	Sheets per employee/month	69	150	Company embraced digital solution to process invoices, payments, etc. Hence, usage of paper has been reduced significantly from 400+ sheets per employee to only 69. Target revised basis new development of Covid 19 restrictions, WFH.
Electricity consumption in office	KWh/per employee/Month	25	30	The amount of electricity consumption significantly reduced due to staffs mostly work from home from April 2020 onwards with partial resumption of alternate team in between. Target revised basis new development of Covid 19 restrictions, WFH.