2024 ENVIRONMENT/ENERGY PERFORMANCE REPORT

Significant Environmental Aspect	Environment/Energy Objective		Performance			P.I.C
	Target	Criteria(Q'ty)	Result	Achievement(%)	Details	
Marine pollution due to emergencies such as hull damage, etc.	**Prevent emergencies and minimize damage.**	The number of Marine pollution Accident form emergencies (ZERO)	Marine pollution Accident (ZERO)	100.0	❑ Continuous verification of compliance with work safety procedures during ship inspections/boarding ❑ Continuous improvement and feedback implementation of work safety procedures, including ship risk assessments ❑ Familiarization with ship emergency response procedures and conducting emergency drills ❑ Thorough management of pollution control materials and waterproof materials for each ship	SHIP, MT, QAT
Marine pollution due to malfunction of machinery and equipment	**Prevent malfunction of marine pollution prevention machinery / equipment and minimize damage**	**The number of Marine pollution prevention machinery / equipment (ZERO)**	Marine pollution Accident (ZERO)	100.0	❑ Optimal management of pollution prevention equipment ■ 15ppm Monitoring System Calibration for Oily Water Separators (Planned 34 ships / Completed 19 ships) ① CNTR Team1 : 11 ships, CNTR Team2 : 6 ships, CNTR Team3 : 2 ships, CNTR Team4 : NIL * Implemented every 2.5 years (30 months) per ship ② BULK Team(BULK, MPV) : 3 ships * Implemented every 2.5 years (30 months) per ship, Annually implemented for RightShip ③ Tanker Team : 14 ships / LNGC Team : 1 ship * Annual calibration as required by Oil Major and in accordance with MESQAC(Marine Environmental, Safety and Quality Assurance Criteria) ■ Maintenance and record-keeping of related equipment and facilities for each ship based on PMS (Planned Maintenance System)	SHIP, MT

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Significant Environmental Aspect	Environment/Energy Objective		Performance			P.I.C
	Target	Criteria(Q'ty)	Result	Achievement(%)	Details	
Air pollution from ship operation	Minimize fuel consumption and increase energy efficiency	F.O consumption intensity (0.7716g/DWT*km)	0.7217	106.5	❑ Performance trends by fleet *Energy efficiency performance is aggregated according to FMS(Fleet management system) ❑ Target : Value of 1% improvement over the 3-year average (2021-2023) ■ CNTR Fleet ① Fuel efficiency has slightly decreased compared to the previous year due to increased port congestion and longer in-port navigation ② Due to the docking schedule of ships, F.O consumption intensity has further decreased ③ Due to the acquisition of second-had ships with lower DWT, it has slightly decreased ■ TANKER Fleet Due to hull fouling on U/series ships, it makes slightly decreased ■ BULK Fleet ① Due to slow steaming and increased time in long-distance routes, it has slightly increased ② Slightly increased fuel efficiency due to relatively high DWT acquisition of used vessels ■ LNGC Fleet F.O consumption intensity has been reduced compared with previous year due to the use of BOG(Boil-Off Gas) mainly for fuel ■ MPV Fleet Fuel efficiency increased due to slow steaming and increased time in long-distance routes	SHIP, QAT

Items	2021	2022	2023	2024
CNTR	0.9315	0.9428	0.8515	**0.8795**
TANKER	0.3462	0.3541	0.3531	**0.3592**
BULK	0.7508	0.7056	0.5081	**0.4701**
LNGC	0.9536	1.2213	0.7888	**0.5199**
MPV	1.9900	2.0114	2.0000	**1.8988**
TOTAL	**0.8140**	**0.8307**	**0.6936**	**▲ 0.7217**

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Significant Environmental Aspect	Environment/Energy Objective		Performance			P.I.C
	Target	Criteria(Q'ty)	Result	Achievement(%)	Details	
	Maintaining appropriate CII ratings	**Maintaining a ratio of vessels with a CII rating of D or higher (95% higher)**	98.9	104.1		R&D, MT

❑ CII grade status (Unit : ship)

Items	CII rating						
	A	B	C	D	E	A~D	E
CNTR	24 36%	26 39%	11 17%	5 7%	0 0%	66 100%	0 0%
TANKER	4 29%	4 29%	5 36%	1 7%	0 0%	14 100%	0 0%
BULK	2 15%	2 15%	5 38%	3 23%	1 8%	12 93%	1 7%
LNGC	0 0%	0 0%	1 100%	0 0%	0 0%	1 100%	0 0%
Total(ship,%)	30 32%	32 34%	22 23%	9 10%	1 1%	93 99%	1 1%

* MPV 4 ships : Except from CII grade evaluation but monitoring is ongoing.
* BULK 1 ship : O/GALAXY will undergo performance evaluation later due to the delay in obtaining previous data.

❑ Target : Maintain a ratio 95% or higher for ships with a CII grade of D or above.
- ■ A~D grade(%) : CNTR(100%), TANKER(100%), BULK(93%), LNGC(100%)
- ■ Factors for D grade : Increased displacement and port navigation time, engine slip, acceleration, adverse weather conditions, etc.
- ■ E grade : 1 ship (FEG SUCCESS)
  - -. Scheduled to be sold in March 2025

❑ Changes in CII grades (Unit : ship)

Items	CII grade changes ('23 vs '24)			Total
	Improvement	Maintenance	Deterioration	
CNTR	2	29	17	48
TANKER	1	10	3	14
BULK	1	2	3	6
LNGC	1	0	0	1
Total (ships,%)	5 7%	41 59%	23 33%	69 100%

* Ships newly built or acquired used ships in 2024 are excluded.

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Significant Environmental Aspect	Environment/Energy Objective		Performance			P.I.C
	Target	Criteria(Q'ty)	Result	Achievement(%)	Details	
					■ 66% of ships have improved or maintained their CII grades. ■ Strategies to achieve CII grade target ; ① Continue to optimize ship efficiency by enhancing route planning through PFS(Proforma schedule) changes and adjustments ② Eco steaming 및 RPM Monitoring -. CNTR fleet : ▶ Utilize *Constant-power in the open ocean, strengthen *BOA management in coastal areas. *Constant-power : Stabilize fuel oil consumption by fixing engine load * BOA(Berth on arrival) : Optimized [ATB-ATA-Pilots] operation ▶ Minimize berthing time by operating a terminal productivity improvement program. ③ Operate SPD(Smart Precipitation Detector) ④ Promote and apply upgraded Premium Anti-Fouling Paint. ⑤ Strengthen Hull fouling Management(Hull inspection 및 Hull cleaning) ⑥ Actively utilize ESD(Energy saving device) such as EPL/ShaPoLi, etc. -. Completed installation of V.I.T(Variable Injection Timing) on 6 ships. ▶ 6.3K(HHOK, HHTA, HHVC), 6.8K (HHCB, HHBN, HHJK) -. Completed retrofit of Propeller on 2 ships. ▶ 6.3K(HHOK, HHTA) ⑦ Expand the use of Bio fuel -. Prioritize the supply of Bio fuel(B30/B24) to low-efficiency ships and ships that have received a D grade for 2 consecutive years.	

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Significant Environmental Aspect	Environment/Energy Objective		Performance			P.I.C
	Target	Criteria(Q'ty)	Result	Achievement(%)	Details	
	Minimize fuel consumption and increase energy efficiency	Hull fouling management (121 ships)	109 ships	90.1	❑ Hull fouling management ■ Increase of fuel efficiency through minimizing hull resistance increase caused by biofouling on hull ■ Hull Inspection performed (planned: 121 ships / completed: 109 ships) ■ Implementing Propeller polishing together ① CNTR fleet : Implementation every 6months regardless of service route -. Plan : 96 ships / Performance : 84 ships (CNTR Team1 : 21 ships, Team2: 28 ships, Team3 : 27 ships, Team4 : 8 ships) -. Unimplemented ships due to delays in operation schedule, entry and change of course are scheduled to be implemented within 25.1-March ② TANKER fleet: Annual implementation after DRY-DOCK for each vessel. -. Planned : 14 ships, Completed : 14 ships ③ LNGC fleet : Annual implementation after DRY-DOCK for each vessel. -. Planned : 1 ship, Completed : 1 ship ④ BULK fleet : Annual implementation after DRY-DOCK for each vessel. -. Planned : 6 ships, Completed : 6 ships ⑤ MPV fleet : Annual implementation after DRY-DOCK for each vessel. -. Planned : 4 ships, Completed : 4 ships ■ Vessels completed Hull cleaning. ① CNTR Fleet : 17 ships completed. 完(6 ships undergoing DRY-DOCK, 11 ships in operation) ② TANKER Fleet : 8 ships completed. (8 ships undergoing DRY-DOCK) ③ BULK Fleet : 4 ships completed. (2 ships undergoing DRY-DOCK, 2 ships in operation)	MT, R&D
	Minimize emission of VOCs	Related Machinery / Equipment PMS Overdue (Case ZERO)	Overdue item ZERO	100.0	❑ VOCs emission at right time and right place through the maintenance for related machinery/equipment with complying PMS. ■ There was no PMS overdue history for related machinery/equipment(High velocity PV valve) in TANKER fleet. ❑ According to VOC management plan, optimal control of VOC related to cargo operation has been carried out through complying emission minimizing procedure and recording for VOCs.	TANKER

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Significant Environmental Aspect	Environment/Energy Objective		Performance			P.I.C
	Target	Criteria(Q'ty)	Result	Achievement(%)	Details	
	Legal operation of incinerator	**Incinerator procedure (Violation ZERO)**	Violation ZERO	100.0	❑ No violation existed.	QAT, MT
	Compliance with fuel oil sulfur oxide emission regulations	**Fuel oil sulfur oxide emission regulations (Violation ZERO)**	Violation ZERO	100.0	❑ SCRUBBER operation and use of VLSFO(very low-sulfur fuel oil) to comply with ship sulfur oxide emission regulations. ■ SCRUBBER operation (82 ships out of a total 100 ships) ① CNTR 58 ships, TANKER 11 ships, BULK 9 ships, MPV 4 ships. ② 24 ships operating SCRUBBER added compare with last year. -. CNTR 19 ships (acquisition of 15 new ships/taking over used 3 ships/1 new installation) -. BULK 5 ships (taking over used 5 ships) ❑ 18 ships not using SCRUBBER are using VLSFO with sulfur content of 0.5% or less.	MT, QAT
Marine pollution from ship operation	**Legal management of Garbage**	**Disposal of garbage (Violation ZERO)**	Violation ZERO	100.0	❑ Prevention of dumping at sea and compliance with regulations through efficient storage of waste and compliance with management procedures. ■ Ships operating the plastic compactor and garbage grinder (87 ships of 100 ships) ① CNTR fleet : 63 ships of 67 ships in operation (94%) ; HHPT, HHPE, HHPU, HHCE are not installed ② TANKER fleet : 14 ships of 14 ships in operation (100%) ; OULD, OUWN, OUCA, OUPT, OUVT, OODD, OOGL, OGDR, OGFT, OGHP, OUIV, OUFR, OUPJ, OUJH ③ LNGC fleet : NIL (0%) ; H.ECOPIA is not installed ④ BULK fleet : 6 ships of 14 ships in operation (43%) ; TGAT, TTAA, BPC1, BSS7, BOGX, BOFL, BODR, BOCP are not installed ⑤ MPV fleet : 4 ships of 4 ships in operation (100%)	QAT, MT

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<table>
<tr><th rowspan="2">Significant Environmental Aspect</th><th colspan="2">Environment/Energy Objective</th><th colspan="3">Performance</th><th rowspan="2">P.I.C</th></tr>
<tr><th>Target</th><th>Criteria(Q'ty)</th><th>Result</th><th>Achievement(%)</th><th>Details</th></tr>
<tr><td></td><td>Minimize generation of Waste oil</td><td>Waste oil generation ratio (1.87 %)</td><td>1.92</td><td>97.3</td><td>
❑ Annual performance of W.O generation (%)
<table>
<tr><th>Items</th><th>2021</th><th>2022</th><th>2023</th><th>2024</th></tr>
<tr><td>W.O generation (%)</td><td>1.83</td><td>1.92</td><td>1.93</td><td>1.92</td></tr>
</table>
❑ Target : Value of 1% improvement over the 3-year average (2021-2023)
■ CNTR fleet :
① Using fuel additives has improved W.O generation rate slightly compared to the previous year.
② Used vessels are classified as excessive waste oil generation due to the inability to aggregate fuel consumption prior to acquisition.
■ TANKER fleet : Increased W.O generation due to frequent tank cleanings and poor F.O supply
■ BULK fleet : Increased W.O generation due to the acquisition of used ships and the reflection of the previous SM company's W.O residue.
■ The waste oil generation rate has generally remained at the same level
■ Mitigation measures ;
① Using fuel additives
② Optimize discharge time of the purifier and thoroughly inspect by PMS.
③ Provide feed-back when selecting suppliers for the procurement team
</td><td></td></tr>
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Significant Environmental Aspect	Environment/Energy Objective		Performance			P.I.C
	Target	Criteria(Q'ty)	Result	Achievement(%)	Details	
	Legal management of Ballast water	**Ballast water management regulation / convention (Violation ZERO)**	**Violation : 2 cases**	0	❑ Compliance with procedures, regulations and record management according to the ballast water management Plan. ■ 2 Cases of Ballast Water Management Regulation violations. ① HMM NURI : Violation of ballast water record regulations -. Omission of depth records in the Ballast Water Record Book. ② HMM DHAKA : Violation of ballast water record regulations -. Time discrepancies in Ballast Water Record Book. [Countermeasure to prevent recurrence] ▶ Completed to give feed-back to all ships about the case of violation - Immediately record and verify in the Ballast Water Record Book after completing operation. -. Thoroughly inspect all records for vessels approaching PSC and scheduled to enter Chinese/European ports ❑ BWMS operation status (Total 100 ships in operation) ■ CNTR 67 ships, TANKER 14 ships, LNGC 1 ship, MPV 4 ships, BULK 14 ships. ■ 27 ships operating BWMS added compared with last year. -. CNTR 19 ships (acquisition of 15 new ships/taking over used 4 ships) -. BULK 8 ships (taking over used 8 ships) ■ According to BWTS installation, Revision of BWMP (reflecting D-2) and re-issue of IBWMC would be conducted	QAT, MT
	Legal operation of SCRUBBER	**SCRUBBER wash-water discharge regulation (Violation ZERO)**	Violation ZERO	100.0	❑ Control area to ban discharge of wash-water from SCRUBBER updated continuously. ■ Update discharge regulations after reviewing regional wash-water discharge regulations from ICCT(International Council on Clean Transportation) and NORTH OF ENGLAND P&I CLUB	MT, QAT

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Significant Environmental Aspect	Environment/Energy Objective			Performance			P.I.C
	Target	Criteria(Q'ty)		Result	Achievement(%)	Details	
	Compliance with regional regulations for various incidental discharges from ship operation	**National discharge regulations (Violation ZERO)**		Violation ZERO	100.0	❑ Identify and thoroughly comply with regional regulations such as US VGP regulations, VOC, gray water, and sewage discharges, etc.	MT, QAT
Resources management of office	**Reduce fuel oil consumption for vehicle**	**Gasoline**	**23,822 ℓ**	22,626 ℓ	105.3	❑ Annual environment performance of office (see table below)	**CAD**
		Diesel	**272 ℓ**	1,393 ℓ	-312.1		
	Reduce the electricity	**Electricity 985 MWh**		1,002 MWh	98.3		
	Reduce the LNG fuel	**Boiler, Cooking facility**	-	-	-		

Items	2021	2022	2023	2024
Gasoline (ℓ)	19,975	23,110	24,046	22,626
Diesel (ℓ)	43	120	273	1,393
Boiler (Nm^3)	41,791	24,129	-	-
Cooling Facility (Nm^3)	12,415	5,794	-	-
Electricity (MWh)	2,920	2,004	995	1,002
Employee (Person)	940	958	946	1,058
Energy consumption (MJ)	13,229,769	9,086,457	4,320,886	4,345,369
Energy consumption (MJ/person)	**14,074**	**9,485**	**4,567**	**4,107**

- Reduced gasoline consumption by promoting high-efficiency vehicles
- Increasing usage of diesel vans for customer visits and other purposes