



# SHIP EFFICIENCY ENERGY MANAGEMENT PLAN (SEEMP)



As per MEPC.1/Circ.683

SEEMP Number:	EX-SEEMP-005	Name of Vessel:	MV Explorer
		Gross Tonnage - tons:	23 000
Vessel Type:	Cargo	Net Tonnage - tons:	8 000
		IMO#:	9604645
Date of Development:	2012-10-30	Developped By:	Gaétan Simard
Implementation From:	2013-06-30	Implemented By:	Gaétan Simard
Implementation To:	2050-01-01		
Planned Date of Next Evaluation:	2014-10-30		

## 1. MEASURES

Energy Efficiency Measures	Implementation (including the Starting date)	Responsability
Keep Main Sea Water pump to minimum speed	Operate main sea water pump to minimum power or output to the drive. Keep Overboard temperature controller to minimum temperature and control sea water loop temperature with controller delta T set point. Temperature should be set at 10 degC +. If in manual keep at minimum speed for energy saving.	Chief engineer, morning engine room visit and engineers sensibilisation.

## 2. MONITORING

On the drive control panel. Read power and Hz. Do not take readings on main sea water pump motor as voltage and amps are not stable and give fals readings.

## 3. GOAL

Less than 10kW on the VFD monitoring screen

## 4. EVALUATION

Every month MDO fuel consumption. Data Logger installed.



# SHIP EFFICIENCY ENERGY MANAGEMENT PLAN (SEEMP)



As per MEPC.1/Circ.683

SEEMP Number:	EX-SEEMP-002	Name of Vessel:	MV Explorer
		Gross Tonnage - tons:	23 000
Vessel Type:	Cargo	Net Tonnage - tons:	8 000
		IMO#:	9604645
Date of Development:	2012-06-04	Developped By:	Gaétan simard
Implementation From:	2012-06-04	Implemented By:	Gaétan Simard
Implementation To:	2050-06-04		
Planned Date of Next Evaluation:	2015-02-01		

## 1. MEASURES

Energy Efficiency Measures	Implementation (including the Starting date)	Responsability
Maximise Bowthruster usage	As the season goes by.	Captain.

## 2. MONITORING

When the bowthruster is running 'idle' it is using MDO. Shut down Bowthruster if not to be use in the next 1/2 hr.  
 When Bow thruster is ON it should be used as much as possible to increase Utilisation factor (Utilisation factor = Time Bowthruster is ON/Time of actual operation)

Fuel consumption for ideling time is estimated to be 52kg MDO/hr. 6hrs of Bowthruster operation generate 1 tons of CO2 in the atmosphere.

## 3. GOAL

Over 50% Utilisation Factor. 25% reduction from 2012

## 4. EVALUATION

Data logging . And ship diesel engine hour report. Will be on GHG End of Month report.



# SHIP EFFICIENCY ENERGY MANAGEMENT PLAN (SEEMP)



As per MEPC.1/Circ.683

SEEMP Number:	EX-SEEMP-004	Name of Vessel:	MV Explorer
		Gross Tonnage - tons:	23 000
Vessel Type:	Cargo	Net Tonnage - tons:	8 000
		IMO#:	9604645
Date of Development:	2012-10-30	Developped By:	Gaétan Simard
Implementation From:	2012-10-30	Implemented By:	Gaétan Simard
Implementation To:	2050-05-15		
Planned Date of Next Evaluation:	2015-02-01		

## 1. MEASURES

Energy Efficiency Measures	Implementation (including the Starting date)	Responsability
Turning the ligths off on deck when not required	As for now, a special attention will be made so all accomodation outside lights to be turned off during daylight. Also turning OFF all cargo lights when not in use.	Captain and mates, a clear procedure and notice to be implemented for mates on watch to get the deck hand to turn off the lights when not needed.

## 2. MONITORING

Chief engineer and Captain. Report to office if need reinforcement.

Notice will be made at winter meeting

## 3. GOAL

1 t MDO

## 4. EVALUATION

Follow-up with timer data logger.



# SHIP EFFICIENCY ENERGY MANAGEMENT PLAN (SEEMP)



As per MEPC.1/Circ.683

SEEMP Number:	EX-SEEMP-006	Name of Vessel:	MV Explorer
		Gross Tonnage - tons:	23 000
Vessel Type:	Cargo	Net Tonnage - tons:	8 000
		IMO#:	9604645
Date of Development:	2015-04-15	Developped By:	Gaetan Simard
Implementation From:	2015-04-15	Implemented By:	Gaetan Simard
Implementation To:	2050-04-15		
Planned Date of Next Evaluation:	2016-04-15		

## 1. MEASURES

Energy Efficiency Measures	Implementation (including the Starting date)	Responsability
Use Stand-by boiler heater	As from now, the stand-by steam heater installed on the auxiliary boiler must be on line at all time.	Cheif engineer and officer on watch.

## 2. MONITORING

The Chief engineer and engine crew must monitor the operation of the auxiliary boiler while at sea. If the burner operates it must be declared to GHG team and investigation made. Any remarks, good or bad must be entered in EOM report.

## 3. GOAL

13 t MDO ; 41 t GHG

## 4. EVALUATION

With data logger installed in boiler pannel and crew feed back.



# SHIP EFFICIENCY ENERGY MANAGEMENT PLAN (SEEMP)



As per MEPC.1/Circ.683

SEEMP Number:	EX-SEEMP-003	Name of Vessel:	MV Explorer
		Gross Tonnage - tons:	23 000
Vessel Type:	Cargo	Net Tonnage - tons:	8 000
		IMO#:	9604645
Date of Development:	2014-11-28	Developped By:	Gaétan Simard
Implementation From:	2014-11-28	Implemented By:	Gaétan Simard
Implementation To:	2050-11-28		
Planned Date of Next Evaluation:	2014-10-30		

## 1. MEASURES

Energy Efficiency Measures	Implementation (including the Starting date)	Responsability
Do not use screw service air compressor for service air in ER	The screw type air compressor uses electricity while it is not pumping. This type of compressor is inneficient when it is not pumping at full capacity.	Chief Engineer

## 2. MONITORING

Engineer on watch and Chief engineer

## 3. GOAL

90% reduction, 64800kWh, 34,5 tCO2eq

## 4. EVALUATION

At the end of that year. Meeting with C\E and hour meter on compressor.



# SHIP EFFICIENCY ENERGY MANAGEMENT PLAN (SEEMP)



As per MEPC.1/Circ.683

SEEMP Number:	EX-SEEMP-001	Name of Vessel:	MV Explorer
		Gross Tonnage - tons:	23 000
Vessel Type:	Cargo	Net Tonnage - tons:	8 000
		IMO#:	9604645
Date of Development:	2012-12-11	Developped By:	Gaétan Simard
Implementation From:	2012-12-11	Implemented By:	Gaétan Simard
Implementation To:	2050-12-11		
Planned Date of Next Evaluation:	2015-02-01		

## 1. MEASURES

Energy Efficiency Measures	Implementation (including the Starting date)	Responsability
Domestic hot water heater	Domestic hot water heater must be supply by steam at all time to reduce fuel consumption. Main shut-off valve in the engine room must stay open and accommodation heating modulated in the fan room or by new automatic controlers.	Chief Engineer and engineers on watch. To make sure the steam water heater is working properly and appropriate maintenance is done.

## 2. MONITORING

Every month on the new GHG tab on the EOM report.

## 3. GOAL

13 tMDO/season

## 4. EVALUATION

At the end of the season. Data logger.