



M/T ESTIA – Initial Audit Carried Out on the 3rd and 4th of December, 2010 at Suez, Egypt

1. The vessel maintains a Sounding Log as required by Section IV and Attachment B to the Scope of Work. Excerpts of the Log Form ENV 008 for November, 2010 are attached. The revised form in use of the Sounding Log includes the initials of the deck officer witnessing the taking of the soundings as required by the Scope of Work. One previous form was not fully completed. It is recommended that on receipt of these forms in the office, they should be reviewed for incomplete entries and the total capacities of the tanks should be entered under the title of the tank on the form ENV 008.

Upon review of the mentioned Sounding Log, it was established that although the Deck and Engine Officers had initialed each recording, they had not signed the month's recordings as required by the log.

Please see Attachment A.

The Master and Chief Engineer have been instructed to ensure that the said Officers sign each page upon its completion as required by the log.

Please see Attachment B.

The form has been revised in order to require that total capacities of the tanks are entered under the title of the tank.

Please see Attachment C.

2. The ODME is tested monthly by the C/O and recorded in an ODME Test log (excerpt attached). During the audit, the ODME was not tested as it was not functional. The IOPP certificate was endorsed accordingly by the Class BV on behalf of the Flag State. The vessel has a condition to get it repaired at vessel's arrival at first European port but not later than 30/12/2010. Last inspection certificate issued by the Class dated 28 April, 2006 is attached. Last service and test report dated 4/11/2010 is attached. As per defect or damage report No. 08/2010 dated 24 November 2010 submitted by Chief Engineer requisition has been made to the management for repairs and spares (Requisition No. 68/2010). It is recommended that the company supply the spares as soon as possible to make the ODME functional.

The malfunction of the ODME was reported to the company following the monthly test on the 24th of November, 2010. A requisition was submitted to the company's Technical department in order for the necessary spares to be supplied to the vessel for the repair of the unit.

The vessel's Flag Administration and Classification Society were notified as per required procedures and a dispensation was issued accordingly, valid until the 30th of December, 2010.

The necessary spares were supplied to the vessel during her call at Antwerp on the 17th of December, 2010. Furthermore, a technician boarded the vessel in order to carry out the repair of the unit.



The unit has been repaired and is fully operational as verified by the attending technician and Class surveyor. The full term IOPP certificate has been re-instated and the relevant Condition of Class has been deleted.

Please see Attachments D, E & F.

3. A flexible hose inventory is kept, with hoses stored in the forecastle. There are, however, no details on tags or labels to identify each hose except just the numbers allocated painted on them. Recommend the hoses be identified with number, diameter and purpose of use on the label to ensure they are properly controlled and accounted for and the inventory list posted at the location.

The current procedure requires that all flexible hoses over 40mm in diameter must be tagged, numbered and recorded in the relevant inventory. The inventory requires the number, diameter and purpose of use to be recorded.

The procedure has been revised in order to require that the above information on the tags as recommended by the attending auditor.

Please see Attachment G.

4. There was objective evidence found on board of pre-joining training for some of the staff of Environmental Awareness as a part of condition of Scope of Work. On full review it was observed that all the staff on board did not go through the pre-joining training in Environmental Awareness. It is recommended that the management develop specific training programs for the manning centers in Philippines with copies of training material on board and copies of certificates for the crew trained prior joining the vessel.

Upon investigation of the issue, it was established that four members of shipboard personnel (the 3rd Officer, Electrician, Oiler and Cook) had not participated in the Environmental Awareness training seminar, due to lack of time prior to joining the vessel. However, all of the mentioned shipboard personnel have attended training in Marpol Annex I, II and VI and were familiarized with the company's Environmental Management requirements onboard.

It should be noted that the Environmental Awareness seminar referred to by the auditor is an additional training seminar. The specific training seminar is not mandatory prior to signing – on but recommended to be attended by the company's shipboard personnel while serving on Ionia's vessels. In the event that crewmembers are not able to attend the seminar prior to signing – on, the seminar is scheduled for the next tour of duty.

Mandatory environmental training is included in the pre – joining familiarization program and consists of familiarization with the requirements of the company's Environmental Management Plan and CBT environmental training.

Please see Attachment H

It should be further noted that specific training programs have been developed regarding environmental awareness the company's Environmental Management Plan and are carried out regularly at the manning agent in the Philippines. The company makes every effort to ensure that all crewmembers attend the training program prior to their joining a company managed vessel. Upon completion of the pre – joining familiarization and training program, a certificate is issued accordingly and maintained in the crewmember's personal records that are submitted to the Master upon signing on.



5. Daily checks of the Envirollogger are being carried out and recorded on Form ENV 024. See attached samples. The monthly comparison values were not entered on the form ENV 024. Since the data is available daily, consideration should be given to amending the form to require daily comparisons and if discrepancies found are large, Ionia management should be informed. (The daily sounding book forms are sent to management on a monthly basis).

The SWOMS unit was fully commissioned on the 9th of November, 2010. Form ENV023 requires that a comparison of the manual soundings and SWOMS soundings is carried out on a monthly basis. As such, a month had not yet passed in order for the comparison to be carried out and recorded accordingly.

It should be noted that the form requires that the data recorded by the SWOMS corresponds to the manual tank soundings on a daily basis.

Form ENV023 has been developed based on the recommendations provided by Vigilant Marine, the unit's makers.

We consider that the form is adequate.

6. In general the standards of record keeping by the Chief Engineer for Oil Record Book (ORB) entries, daily sounding book entries and the filling of form ENV 023 were below average. A number of errors were observed and were pointed out to the attending superintendent and the Chief Engineer. No irregular operations were performed. It is recommended that the Chief Engineer undergo comprehensive training in the importance of accurate and complete record keeping and consequences of erroneous records in the ORB, Form ENV 023 and the Daily Sounding Book. This is first ship covered under Scope of Work for this Chief Engineer. Following are specific examples of the error found:

a. During the review of the ORB, it was noticed that there was a receipt for disposal ashore of 2.0 cubic meters of bilge water. Upon checking the ORB entries and Daily Sounding Log entries, there was no entry of transfer of 2.0 cm³ of bilge water. When the C/E was asked for explanation he indicated that the bilge water was directly transferred from the E/R bilges to shore. This process cannot provide accurate quantities as there are no sounding tables for the bilge wells. The quantity was obtained from the recipient ashore. The proper procedure should have been to transfer the bilges to either the Dirty or Clean Bilge Tank and then send it ashore. This way the soundings of these tanks would have given an accurate quantity disposed ashore. This was pointed out to the attending deck and technical superintendents.

b. On the daily sounding sheet two soundings were not entered and there were signatures missing. I explained to the C/E the importance of accurate and complete entries and consequences of contrary. The need for additional training for this Chief Engineer was suggested to the attending superintendent.

c. Form ENV 024 - Checklist for Envirollogger was not completed for Envirollogger values of the tanks listed in the IOPPC. It appeared that the C/E did not seem to be aware of the importance and purpose of comparisons between the Envirollogger values and daily manual soundings taken at the same time, as the daily soundings were forwarded to the management on a monthly basis.

Prior to signing – on, all Chief Engineers are required to attend a seminar regarding the correct recording of data in the Oil Record Book. Furthermore, the issue is discussed extensively with the Chief Engineer during pre – joining familiarization at the company's premises.



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The Chief Engineer had attended the process as per company's procedures prior to signing – on the vessel however it seems that he had not grasped certain issues adequately.

It should be noted that the Chief Engineer is serving with Ionia for the first.

Arrangements have been made to repatriate the Chief Engineer at the next port of call in order to carry out additional training to address the identified areas of weakness.

7. SWOMS data for tank soundings were compared against manual tank soundings. The following table shows the results. The manual data was taken from form ENV 024. No data of automatic soundings was entered on Form ENV 024, by the Chief Engineer. This form is not currently required to be forwarded to management. The manual sounding sheets, Forms ENV 008, are sent to management on a monthly basis.

Date & Time: GMT 12:00 December 01, 2010							
Tank	Cap. (m ³)	Manual (cm)	Manual (m ³)	SWOMS (cm)	SWOMS (m ³)	Diff. (m ³)	% Diff. (m ³)
Clean Bilge	32.21	0.40	3.20	0.40	2.96	0.24	7.5
Dirty Bilge	32.49						
Bilge Oil	11.89	0.20	0.20	0.23	0.21	0.01	0.5
Incinerator	2.14	1.40	2.00	0.01	0.10	0.90	45.0
FO Sludge	11.89	0.27	0.50	0.31	0.52	0.02	4.0
LO Purif. Sludge	4.56						
FO Purif. Sludge	7.98						

Date & Time: GMT 12:00 December 02, 2010 at sea							
Tank	Cap. (m ³)	Manual (cm)	Manual (m ³)	SWOMS (cm)	SWOMS (m ³)	Diff. (m ³)	% Diff. (m ³)
Clean Bilge	32.21	0.40	2.20	0.40	2.97	0.77	35.0
Dirty Bilge	32.49						
Bilge Oil	11.89	0.20	0.20	0.23	0.22	0.02	10.0
Incinerator	2.14	1.40	2.00	0.01	0.10	1.90	95.0
FO Sludge	11.89	0.27	0.50	0.30	0.50	nil	0.0
LO Purif. Sludge	4.56						
FO Purif. Sludge	7.98						

* Bilge total capacities are not known

SWOMS Envirologger was installed on board November 02, 2010

Incinerator Service tank is not included in IOPP certificate.

It should be noted that in order to calculate the percentage difference between the SWOMS readings and the manual readings, the difference should be calculated based on the total capacity of the tank in question.



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For example:

Clean Bilge Tank SWOMS reading = 2.96m³

Clean Bilge Tank Manual reading = 3.2m³

Total capacity of tank = 32.21m³

$$\text{The percentage difference} = \frac{(3.2 - 2.96)}{32.21} \times 100 = 0.75\%$$

Upon review of the table submitted by Capt.Joshi, it was observed that an error was made when converting the Clean Bilge Tank's manual sounding reading from cm to m³ on the 2nd of December, 2010. The manual reading should be 3.2m³ and not 2.2m³. The erroneous data has been highlighted in the table. As such, the difference is not 35% as stated in the table.

However, an Ashland technician boarded the vessel at Antwerp on the 17th of December, 2010 to ensure that the unit is properly calibrated. The unit has been confirmed to be operating satisfactorily.

Please see Attachment I.

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Safety & Quality Manager
For and On Behalf Of
Ionia Management S.A.