



IONIA MANAGEMENT S.A.

12 LASKOU STR., 18536 PIRAEUS, GREECE – Phn:+30 210 4283860, Fax:+30 210 4283865, Tlx: 213006, E-mail: info@ioniaman.gr

Two sets of sounding were taken during the audit on 25 March, one hour apart. The soundings were identical and so only one set is included in the table.

The above soundings were taken by the 2/E in the C/E's in my presence. The vessel was at anchor; therefore, there was no movement of the vessel that could skew the soundings. The sounding from the sounding tape was verified for each tank by both myself and the C/E and the value recorded. The printout of the SWOMS data was requested at about the same time the soundings were taken. To satisfy the recommendation from another audit, three manual soundings are taken each time and the average or median value recorded.

As indicated above, the enviro-logger soundings for the WOT is not accurate. According to the C/E, the sending unit's reliability and accuracy deteriorates under varying temperature and humidity conditions. Also according to the C/E, the company is aware of the issue; however it has not been documented. Recommend that the WOT sending unit be repaired as needed. Prior to my departure the C/E submitted a "Defect or Damage Report¹²" reporting that the waste oil tank envirolgger gauging indication does not work and the company replied with the repair action plan. Excluding the waste oil tank, the average percentage difference between the manual sounding and the SWOMS was 1.3 %. Daily checks of the Enviro Logger are being carried out and recorded on Form ENV 023. I noted that the ENV 023 "Enviro-logger Checklist" includes, "Verify that the level data of measured tanks corresponds to manual sounding". The checklist dated 21 May 2011¹³ is checked "No" however there is no explanation for discrepancies in the measurements. Recommend that ENV 023 be modified so that an explanation for discrepancies can be included in the form.

The Technical department shall arrange for a technician to board the vessel and calibrate the sensors of the Waste Oil Tank. However, it should be noted that, as mentioned by the auditor, the nature of the tank does not allow for readings to be taken by the SWOMS accurately.

The company's Technical department is currently working with the maker, Vigilant Marine, in an effort to resolve the issue.

Form ENV023 has been amended in order to allow for explanations to be provided in the event of any identified discrepancies.

~~Attachment G Revised Form ENV023~~

The issue did not arise at the time of the internal audit.



IONIA MANAGEMENT S.A.

12 LASKOU STR., 18536 PIRAEUS, GREECE – Phn: +30 210 4283860, Fax: +30 210 4283865, Tlx: 213006, E-mail: info@ioniaman.gr

- 13) The FO Overflow Drain Tank (capacity 6.6 m³), the Scavenger Air Box Drain Tank (capacity .4m³), the L/O drain tank (capacity 3.1 m³) and the M/E Stuffing Box drain (capacity 1.9 m³) are not monitored by the SWOMS. The tanks are considered oily residue (sludge) tanks and are listed on the Supplement to the IOPP Certificate under 3.1. Recommend Ionia evaluate whether these tanks should be included in the SWOMS.**

The purpose of the FO Overflow Drain Tank is to collect fuel that is drained or that may overflow from the vessel's machinery. In practice, the fuel that is collected is re-circulated for consumption as it is clean fuel. Therefore, the quantity that is collected in the mentioned tank is not handled as waste. The same is valid for the M/E Stuffing Box Drain tank and the Lube Oil Drain Tank.

The scavenger air box drain tank is pressurized and at a high temperature and as such it is considered that the SWOMS will not be able to accurately monitor the contents of the tank.

The item is not within the scope of the internal audit.

- 14) As was noted on another vessel, the contents of the Oil Transfer Procedures¹⁴, required by 33 CFR 155.720, are not in full alignment with the regulations e.g. the procedures for topping off of tanks is not included. Recommend the procedures be amended to include specific citing of these regulatory requirements.**

As mentioned by the auditor, the Oil Transfer procedures had been reviewed by an IEC auditor on another vessel and found to be inadequate. As a result, the procedures were amended in order to ensure that they were in line with the 33 CFR 155.720. The revisions were implemented on the 1st of November, 2010 to the satisfaction of the IEC and included topping off procedures as per requirements.

The revised procedures were in place onboard the M/T FIDIAS at the time of the audit.

Upon investigation of the issue, it was established that the auditor is making reference to the order provided by the Chief Engineer regarding bunkering procedures and posted in the ECR. The Chief Engineer has been instructed to ensure that his orders are in line with those as set out in the company's procedures.

Attachment H Oil Transfer Procedures

The item is not within the scope of the internal audit.

- 15) I noted that the sediment is not recorded during ballast tank inspections¹⁵. Prior to the completion of the audit, the C/O conducted training and sediment recording was carried out.**

Upon investigation of the issue, it was established that the auditor is making reference to the activities included in the vessel's electronic PMS. The relevant activity allows for a brief description of the work carried out to be provided. However, the activity is accompanied by a company form that requires an estimation of the sediment build up in the ballast tanks to be recorded during the routine inspection of the tank.

Attachment I Ballast Tank Inspection Report



IONIA MANAGEMENT S.A.

12 LASKOU STR., 18536 PIRAEUS, GREECE - Phn:+30 210 4283860, Fax:+30 210 4283865, Tlx: 213006, E-mail: info@ioniaman.gr

The item is not within the scope of the internal audit.

- 16) According to the C/E, the sounding log is maintained in the C/E's office; however, the Scope of Work requires that it be maintained in the engine control room EMM 9.5 requires that the Tank Sounding Log Book be maintained in the Engine Control Room. Recommend that the sounding log be relocated to the engine control room.

The Chief Engineer has been instructed to maintain the tank sounding log in the ECR.

The issue did not arise at the time of the internal audit.

Prepared By:

Krystyna Tsochlas

Safety & Quality Manager

For and On Behalf Of

Ionia Management S.A.



IONIA MANAGEMENT S.A.

12 LASKOU STR., 18536 PIRAEUS, GREECE - Phn:+30 210 4283860, Fax:+30 210 4283865, Tk: 213006, E-mail: info@ioniaman.gr

M/T PLOUTOS – Final Audit Carried Out from the 14th of August, 2011 to 17th of August, 2011

The Final Environmental Audit carried out onboard the M/T PLOUTOS resulted in only Observations and Comments from the Auditor and no Recommendations were noted. It is evident that all prior recommendations noted in other audit reports of Ionia managed vessels have been fully addressed and implemented effectively. We believe this is a testament to Ionia's commitment to environmental compliance and its efforts and success in fully implementing all requirements of the Special Master's Scope of Work. Since this was the "final" Final Audit to be conducted onboard Ionia managed vessels, it demonstrates, in a very effective manner, Ionia's efforts and success in complying with the Special Master's Scope of Work and the change of company culture in fulfilling its environmental compliance commitments.

There were two minor items in the Observations and Comments portion of the Final Audit of the M/T PLOUTOS that may require a response from Ionia. In this regard, Ionia's response to those minor Comments are as follows:

- 7) **The vessel maintains a Ballast Water Log in the format required by the BWMP, detailing the ballast operations associated with each ballast water tank. Ballast water operations for each tank and operation are listed on a separate page (see attached). While this is acceptable, in order to more effectively track the history of each tank and reduce the volume of the log, I recommend operations for each tank be listed on the same page consecutively until the page is completed. Previously, operations for all tanks were listed on the same page. Based upon the recommendation in a previous audit, this was changed to the current system; however, the intent of the recommendation was not to start a new page for each operation. There were no entries in the Narrative Log (copy attached). Recommend the Chief Officer maintain the Narrative Log as required by the BWMP.**

The responsible Officer shall be instructed accordingly regarding the issue.

Copies of the Narrative Log shall be requested at random intervals in order to verify that it is being maintained.

- 29) **Vessel personnel are carrying out weekly inspections and quarterly sampling to comply with the requirements of the EPA's recently adopted National Pollutant Discharge Elimination System (NPDES) Vessel General Permit. The required annual inspection was completed by the Master on 12/31/10. The Master was unable to produce a copy of the ENOI filed and the EPA permit letter. Recommend this be placed aboard before the vessel calls a U.S. port. It is noted that these regulations only apply to vessels calling U.S. ports.**

Although the ENOI has been filed and a copy was provided to the vessel, it seems that it had been misplaced. A copy has been sent to the vessel and the Master has been instructed to file it accordingly.

Prepared By:

Krystyna Tsochlas

Safety & Quality Manager

For and On Behalf Of

Ionia Management S.A.



M/T THEOT – Final Audit Carried Out from the 13th of March, 2011 to 16th of March, 2011

- 1) According to Section 5.19 of the EMS "In the event that the incinerator malfunctions, the company should be notified using the SMS defect report and an entry should be made in the Oil Record Book (ORB), Part I." It appears there were problems with the incinerator starting 12 October 2010 when the prior C/E requested numerous parts for the incinerator (see attached request form). The new C/E reported aboard on 16 October 2010 and on 7 November 2010 he sent a request for spare parts for the incinerator. On the bottom of the form he stated "Note: Incinerator unit inoperative. Condition of primary burner very bad and fan impeller destroyed. The above additional to req 50/10." An entry was not made in the ORB when the C/E discovered this, nor was a SMS defect report sent to the company concerning the inoperative incinerator. The vessel did not receive the incinerator spare parts until 1 February 2011. According to the C/E the incinerator was working for a while and then a few days before Goteborg, Sweden, the milling pump for the incinerator began having problems. This spare part was received on 14 March 2011 and repaired on this day. A satisfactory test of the incinerator on diesel was conducted before on 13 March 11. After the repair to the milling pump, the incinerator burned sludge for a total of 20 hours starting at 1104 on 14 March 2011 and completed the operation at 0711 on 15 March 11. The initial sounding of the Waste Oil Service Tank (WOST) was 0.834 m3 and the final sounding was 0.161 m3. Therefore, the incinerator operated for a total of 20 hours and burned a total of 673 liters or a burn rate of 33.65 l/hr. According to the IOPP the incinerator is rated from 15 to 80 l/hr however, the incinerator manual states it is rated for 40 l/hr. Therefore, the incinerator operated within its rated capacity. It is recommended that when pollution prevention equipment fails, it be logged in the ORB and a SMS defect report be submitted as required by the EMS.

The requisition dated 12 October, 2010 was made to meet the company's minimum required critical spares as well as for routine maintenance, as clearly stated by the Chief Engineer therein. The requisition had no connection to a failure of the vessel's incinerator.

On the 17th of October, 2010 the Chief Engineer signed off the vessel. The Chief Engineer stated in his "Declaration of Environmental Compliance upon Sign – Off" that the incinerator was working satisfactorily. The report was available onboard the vessel for review.

Attachment A Declaration of Environmental Compliance upon Sign - Off

An additional requisition was submitted to the company on the 7th of November, 2010 requesting spare parts for the incinerator that had been observed as worn. It should be noted that the parts observed as worn, were not yet in a critical condition. The reference made by the Chief Engineer in the requisition regarding the incinerator's operational status was due to a clerical error. Furthermore, evidence that the incinerator had been operated on the 30th of October, 2010 and the 19th of November, 2010 is available. Copies of the following are attached:

Attachment B Oil Record Book Part I entry dtd 30/10/2010
Attachment C SWOMS print out dtd 30/10/2010
Attachment D Oil Record Book Part I entry dtd 19/11/2010
Attachment E SWOMS print out dtd 19/11/2010



IONIA MANAGEMENT S.A.

12 LASKOU STR., 18536 PIRAEUS, GREECE – Phn:+30 210 4283860, Fax:+30 210 4283865, Tlx: 213006, E-mail: info@ioniaman.gr

Therefore, a defect report and relevant Oil Record Book entries regarding a failure of the incinerator during the mentioned period were not available, as there was no such failure. In reference to the failure of the incinerator's milling pump, it should be noted that the milling pump is a loose item of the waste oil service tank and not part of the incinerator. The purpose of the milling pump is the agitation and mixing of the contents of the waste oil incinerator tank, the failure of which does not result in the operational failure of the incinerator. As such, there was no need for an entry to be made in the Oil Record Book because there was no actual failure of the incinerator.

The problems observed with the milling pump were due to wear and tear of a mechanical seal, resulting in a minor leak. The mechanical seal was requested and supplied to the vessel on the 13th of March, 2011 and the necessary repairs were carried out on the same day.

The company's procedures require that when any operational failure of pollution prevention equipment occurs, a defect report must be issued and relevant entries must be recorded in the vessel's Oil Record Book. The procedure was not implemented in the mentioned cases, as no operational failure of pollution prevention equipment actually occurred.

- 2) **During my review of the Oil Record Book, Part I, I noted the sludge tank weekly retentions were recording all five sludge tanks listed under section 3.3.1 of the Supplement to the IOPP Certificate; however, the Bilge Holding Tank (BHT) retention is not being recorded as recommended by the previous ongoing audit and now required in Section 9.5 of the EMS. It is recommended this be done in the future.**

The company's procedures require that the bilge holding tank retention is recorded on a weekly basis. Upon investigation of the issue, it was established that the Chief Engineer had neglected to record the retention of the said tank as required.

The Chief Engineer has been instructed to include the weekly retention of the bilge holding tank in accordance with company requirements. The company's Technical department has verified that data is now being properly recorded through the monthly submission of relevant documentation.

Attachment F Copies of Oil Record Book Part I

Furthermore, the issue has been distributed throughout the fleet and vessels have been requested to confirm their compliance with the requirement.

Attachment G Fleet Circular and Confirmation

The issue was not raised during the internal audit as it had already been identified during the review of the documentation that is carried out on a monthly basis by the company's Technical department. The Technical department had sent relevant instructions to the vessel and the issue was resolved thereafter.

Attachment H Technical dept. instructions



IONIA MANAGEMENT S.A.

12 LASKOU STR., 18536 PIRAEUS, GREECE – Phn:+30 210 4283860, Fax:+30 210 4283865, Tlx: 213006, E-mail: info@ioniaman.gr

- 3) Recently ABS added the FO Overflow Drain Tank to the list of sludge tanks. After talking with C/E it seems this tank is not usually on an IOPP. It appears it was added since it is connected to the sludge pump. There are a few entries in the ORB in which this tank drops in volume with no explanation (for example 27 Feb 11 to 06 Mar 11 in the C.11 entries). I saw in the engine log book that the liquid from this tank was transferred to the HFO settling tank on 02 Mar 11. Since this tank is listed as one of the IOPP sludge tanks, recommend all transfers to and from this tank be entered in the ORB.

The Chief Engineer had omitted to record data pertinent to the mentioned tank as it had been recently added to the IOPP Form B Supplement.

He has been instructed to include entries regarding information concerning the tank in the Oil Record Book.

The company's Technical department has verified that data is being properly recorded through the monthly submission of relevant documentation.

Attachment I Copies of Oil Record Book Part I

- 4) The incinerator capacity listed on the Supplement to the IOPP Certificate is 15-80 liters/hour. This appears to reference the pump rate of the sludge pump. Review of the technical data contained in the manufacturer's manual (copy attached) indicates this value is the capacity of the sludge pump and the liquid waste burn capacity is 38 kg/hour and later in the manual it states the capacity is 40 liters/hour. Recommend that the accuracy of the Supplement to the IOPP Certificate be verified by Class during the next occasion of their visit to the vessel. This was identified in the previous ongoing audit and still has not been resolved. It is recommended this be addressed by ABS.

The vessel's Classification Society has made the necessary corrections.

This item was not reviewed during the internal audit.

Attachment J Amended IOPP Supplement

- 5) During the previous ongoing audit it was determined non crewmembers had to fill out the Environmental Procedures for Non-Crew Members, Form ENV 022. It was suggested that the form be eliminated and a readily visible notice posted at the gangway, with the watch stander pointing this out to all personnel boarding the vessel. When I came on board the vessel, my identification was checked by the gangway watch and they knew I was the environmental auditor. They did not show me the sign which was created as a result of the earlier audit. It is highly recommended that all gangway watch standers know to show the sign to visitors on board and to have them read the sign before they proceed.

An instruction was sent on the 3rd of August, 2011 to all vessels requesting that the recommendation is implemented.

This matter did not arise at the time of the internal audit.



IONIA MANAGEMENT S.A.

12 LASKOU STR., 18536 PIRAEUS, GREECE - Phn:+30 210 4283860, Fax:+30 210 4283865, Tlx: 213006, E-mail: info@ioniaman.gr

- 6) The ODME is tested monthly by the C/O and recorded in an ODME Test log (excerpt attached). During the audit, the ODME was tested by the C/O in my presence. Instructions contained in the manufacturer's manual were used to perform the tests, with values for ship speed, PPM, and flow rate manually entered. Due to the vessel being at anchor and also, since a blank flange is installed in the ODME discharge line, an actual discharge test could not be performed. It should be noted that the vessel does not discharge its slop tanks at sea. All slops from ballast and tank cleaning are sent ashore. The ORB Part II verified this. Accordingly, the ODME was tested based on the manual value input. The high PPM and 30 liters/nm exceeded were tested. The C/O was very competent in the ODME operation and knowledgeable of the discharge requirements. The testing of the ODME was not entered into the ORB Part II except for the March 2011 entry. As required by the Scope of Work and Section 9.5 of the EMS, I recommend the monthly testing also be recorded in the ORB. See attached. This was also identified during the previous ongoing audit.

The company's procedures require that the monthly test of the vessel's ODME is also recorded in the vessel's Oil Record Book Part II.

The Chief Officer had neglected to record the entries as required as he considered that the entries made in the vessel's Planned Maintenance System are adequate.

The Chief Officer has been instructed to ensure that the necessary entries are made in the Oil Record Part II as per the company's requirements.

Part II of the Oil Record Book was not reviewed by the appointed auditor during the internal audit.

Attachment K PMS Records of ODME Testing

- 7) Section 5.14.11 states "the vessel must maintain spares for the oily water separator, oil content meter, and its filters in accordance with the list of Minimum Recommended Spares." The spares for the OCM are not listed on the list of minimum recommended spares for this vessel. It is recommended that such spares be added to this list.

The vessel's oil content meter is secured in a "lock box" which does not allow any kind of intervention by the vessel's crew. As such, it is not necessary to maintain spares for the oil content meter onboard the vessel. Any intervention of the vessel's OCM shall be carried out by an authorized technician who shall carry all the necessary spare parts that may be required during his attendance.

Based on the above, the Technical department did not include the spares for the OCM in the list of "Minimum Recommended Spares" required onboard.

In light of the above, the relevant procedure shall be amended in order to remove the reference to the oil content meter.

Attachment L Amended procedure

This issue was not within the scope of the internal audit.



IONIA MANAGEMENT S.A.

12 LASKOU STR., 18536 PIRAEUS, GREECE - Phn:+30 210 4283860, Fax:+30 210 4283865, Tlx: 213006, E-mail: info@ioniaman.gr

- 8) While conducting the deck walk it was discovered that the standard oil discharge flanges do not have proper seals on the flanges. The Starboard side flange did not have seals on it. The Port side flanges had broken seals on them.**

The vessel has confirmed that seals have been placed on the flanges as per requirements.

Attachment M Photos of seals on oil discharge flanges on port side
Attachment N Photos of seals on oil discharge flanges on stbd side

A random check of the vessel's environmental tag system was carried out during the internal audit.

- 9) There are steam lines which are on the high and low sea chest. These flanges could be removed to install a "magic pipe." It is recommended these steam lines have seals installed to ensure they are not used improperly. See photos.**

Although it is considered highly unlikely that the mentioned lines could be utilized in violation of Marpol regulations, the company's Technical department has provided instructions to the vessels in order to place seals on the mentioned flanges.

The ship specific drawings indicating where seals are required to be placed have been revised in order to include the mentioned lines.

Attachment O Drawings for seals on steam lines of high and low sea chest

The vessel has verified that the seals have been placed as per instructions.

Attachment P Photos of seals on steam lines of high and low sea chest

The issue was not within the scope of the internal audit.

- 10) Section 5.21. states that "Seals with unique identification numbers shall be placed on the flanges on the vessel's ODME sample lines and flow connections." Some seals have been placed on some of the flanges of the ODME sample line, but not on all of them. Also some of the seals installed are loose and could allow someone to remove the flanges without removing the seal. It is recommended that this be resolved.**

The requirement for seals to be placed on the flanges of the ODME sample line was recently included in the company's Environmental Management Plan. Upon investigation of the issue, it was established that the vessel's personnel had not adequately understood the instructions provided regarding the issue.

Clearer instructions have been provided to the vessel in order to ensure that seals have been placed on all of the flanges on the ODME sample line in accordance with the relevant drawing that has been provided by the company's Technical dept.

Attachment Q Photos of seals on ODME lines

A random check of the vessel's environmental tag system was carried out during the internal audit.



IONIA MANAGEMENT S.A.

12 LASKOU STR., 18536 PIRAEUS, GREECE - Phn:+30 210 4283860, Fax:+30 210 4283865, Tlx: 213006, E-mail: info@ioniaman.gr

11) A Master's Environmental Review must be conducted with a meeting of the officers on board. It is not clear if a meeting of the officers occurred when the Master's Environmental Review was conducted on 1 March 11. According to Section 8.4.7 of the EMS, "Upon completion of the meeting, minutes shall be compiled and posted in the previously mentioned areas. A copy of the minutes shall be retained onboard and a copy shall be submitted to the company along with the Master's Environmental Management Review report." There were no such minutes found on board the vessel. It is recommended that the minutes of the meeting be recorded and kept on board the vessel.

The Master of the vessel had omitted to maintain minutes of the meeting held as he considered that feedback from the meeting is included in the Master's Environmental Review report.

The Master shall be instructed accordingly in order to ensure that his understanding of the procedure is adequate.

Furthermore, the issue shall be distributed throughout the fleet and confirmation of compliance shall be requested from the vessels.

The item was overlooked by the internal auditor. Upon review of the company's internal audit checklist, it was established that there is no specific reference to the minutes of the meeting to be carried out prior to the environmental review. The checklist shall be amended accordingly.

Attachment R Master's Environmental Review

12) Section 5.16 of the EMS and the Scope of Work both state that the OWS source tank shall be cleaned every 6 months. Section 9.5 of the EMS states that whenever the OWS source tank is cleaned it should be recorded in the ORB. According to the computer PMS system there is a six month requirement which states "Inspection of Bilge Holding Tank through manhole, cleaning if necessary." This requirement does not state the tank has to be cleaned every 6 months as required by the Scope of Work and the EMS. The C/E told me that according to the PMS system, the BHT was cleaned on the following dates: 6 Feb 11, 4 Nov 10, 8 Aug 10 and 6 Mar 10. I reviewed the ORB and there were no entries stating the BHT was cleaned on these dates. On 13 Feb 11 there is an entry in the ORB stating the BHT was inspected, but it does not state it was cleaned. On this date the BHT had 10.066 m3 still in the tank. ~~It is not possible to see the bottom of the tank or to easily clean the entire tank when there is still about a quarter of the tank volume still in the tank.~~ According to the ORB on 4 Nov 10, the last time the BHT was cleaned, the tank volume in the BHT was 8.732 m3. On 8 Aug 10, the BHT had 0.2 m3, so it is possible it was cleaned or inspected but it is not entered in the ORB. It is recommended the BHT be cleaned every 6 months and a record be maintained in the ORB and in the PMS.

Upon investigation of the issue, it was established that the relevant task in the vessel's PMS does not clearly require that the bilge holding tank is to be cleaned every six months. It requires that the tank is inspected and based on its condition, cleaned accordingly.



IONIA MANAGEMENT S.A.

12 LASKOU STR., 18536 PIRAEUS, GREECE - Phn:+30 210 4283860, Fax:+30 210 4283865, Tlx: 213006, E-mail: info@ioniaman.gr

The relevant task shall be amended in order to clearly state that the bilge holding tank must be cleaned every six months and a relevant entry made in the Oil Record Book Part I.

Furthermore, a reminder shall be sent to all the vessels, instructing that an entry must be made in the Oil Record Book Part I every time the bilge holding tank is cleaned.

- 13) The vessel maintains a Sounding Log as required by Section IV and Attachment B to the Scope of Work and Section 13.3 of the EMS. Excerpts of the Log for January, February and part of March 2011 are attached. The remarks section of the sounding log has been returned to the form. When I entered the ECR on my first day I saw that the sounding log was being completed, but there were no signatures for any of the March entries. I took a photocopy of this document. I asked the C/E about this and he told me that the 4/E and 3/O initial the document whenever the page is full. The C/E told me that the 4/E and 3/O do not accompany the oiler every morning when he does the daily manual soundings as required by the Scope of work and the EMS. Furthermore, the oiler is not taking three soundings of each tank to ensure a proper sounding has been conducted as recommended by the previous ongoing audit. Also, the sounding log is just a print out and it is not bound and uniquely numbered allowing for removal of a page and changing the information. It is recommended this be a bound document. It is also recommended that all of the above be resolved immediately.

The company's procedures require that one of the Deck Officers accompanies the Engine Officer when carrying out the daily tank sounding of the engine room tanks. The procedure also requires that three soundings are taken and the average is recorded in the log.

The Chief Engineer has been instructed to implement the company's procedure in accordance with requirements immediately.

The issue has been distributed throughout the fleet and all vessels have confirmed that the daily tank sounding procedure is being implemented in accordance with the company's requirements.

The company shall prepare bound copies of the daily tank sounding log for each vessel and provide the log books to the vessel.

The internal audit was carried out in February, 2011 prior to discrepancies identified in the data recorded in March, 2011.



- 14) As per the Scope of Work and Section 13.3 of the EMS it is preferable to have sample bottles provided by the laboratory on board for taking samples of the BHT, OWS and bilge wells while an external auditor is on board. There were no such sample bottles on board during this audit. It is highly recommended that such sample bottles be retained on board the vessel at all times to allow for taking samples and sending to the laboratory.**

Sample bottles had been ordered from the laboratory by the Technical department in order to be supplied to the vessel for the audit. Although the bottles had been delivered to the vessel's agents timely, the agent neglected to supply them to the vessel prior to the audit.

This item was not within the scope of the internal audit.

- 15) The vessel is required to conduct quarterly Qualified Individual (QI) Notification drills. The date of the last QI drill according to the records on board the vessel was 12 May 2010. The vessel has been to the USA on a few occasions since that date including Savannah, GA in November 2010. It is recommended the vessel conduct and record the required QI drills on a quarterly basis.**

Upon investigation of the issue, it was established that the Master was not aware of the requirement to carry out quarterly communication drills with the vessel's Qualified Individual.

The Master was instructed to ensure that the communication drills are carried out as per requirements.

The issue has been distributed throughout the fleet in order to ensure that all vessels are aware of the requirement.

Furthermore, the company's Safety & Quality department has developed a process in order to follow up and ensure that the communication drills are carried out as required.

The issue was not reviewed during the internal audit. Upon review of the company's internal audit checklist, it was observed that the item has not been included in the checklist. The checklist shall be amended accordingly.

Attachment S Internal Audit Checklist

- 16) The ORB states the OWS coalescer filters were renewed on 13 Feb 2011. The ORB also states the OWS internals were cleaned and washed. Neither of these were entered into the computer PMS. It is recommended that all maintenance performed on the pollution prevention equipment be recorded in the computer PMS.**

The vessel's PMS has a task requiring the oily water separator's coalescer filters are to be replaced annually. Furthermore, cleaning of the oily water separator is required to be carried out every six months.

Upon investigation of the issue, it was established that the Chief Engineer had omitted to make the necessary entries in the PMS as per requirements.



IONIA MANAGEMENT S.A.

12 LASKOU STR., 18536 PIRAEUS, GREECE – Phn:+30 210 4283860, Fax:+30 210 4283865, Tlx: 213006, E-mail: info@ioniaman.gr

The Chief Engineer was instructed to ensure that all activities are properly recorded in the vessel's PMS in accordance with requirements.

The issue was overlooked by the internal auditor.

- 17) The vessel has a computerized Preventative Maintenance System (PMS) using the Ulysses software. Most of the maintenance requirements for the pollution prevention equipment in the PMS is similar to what is listed in the manuals for the equipment; however, there appears to be maintenance which is being performed which is not being recorded in the PMS system. For example according to the C/E the MSD is being back flushed monthly and there is weekly chemical dosing done. The pH of the MSD is being checked every three months according to the C/E. None of this is being logged in the PMS.**

All maintenance activities related to the vessel's pollution prevention equipment is required to be included in the vessel's PMS. Upon investigation of the issue, it was discovered that the specific activities related to the sewage treatment plant had not been included in the PMS.

The company's Technical department shall make the necessary amendments to the vessel's PMS in order to include the mentioned maintenance activities in the system.

Attachment T Instructions for maintenance of the sewage treatment plant in the PMS

The item was not within the scope of the internal audit.

- 18) During the course of the audit, several seals were broken in the engine room. The Master gave the C/E all of the spare seals without keeping track of which seals were used. It is highly recommended the Master be reminded the unused seals need to be carefully handed out to the C/E so they are not used improperly.**

Upon review of the relevant procedure, it was observed that the guidelines regarding the distribution of seals by the Master do not clearly allocate the Master his responsibility for monitoring the use of the spare seals.

The procedure shall be reviewed and revised accordingly.

Furthermore, all vessel Masters shall be briefed on the issue in order to ensure that they are made fully aware of their responsibilities.

Attachment U Revised procedure

The issue did not occur at the time of the internal audit.

- 19) The Master's handover notes does not have an inventory of the spare seals on board the vessel. It is recommended this be done.**

The Master's Handover note makes reference to the Spare Seal Log book that is maintained by the Master. The log book inventories the spare seals available in the Master's possession.

We consider the current procedure adequate.



IONIA MANAGEMENT S.A.

12 LASKOU STR., 18536 PIRAEUS, GREECE - Phn:+30 210 4283860, Fax:+30 210 4283865, Tlx: 215006, E-mail: info@ioniaman.gr

The item was not within the scope of the internal audit.

- 20) A test of the OWS was conducted while the vessel was underway from the anchorage. The test was begun at 1245. The sounding of the BHT was 0.59 m which equates to 6.37 m³. When the C/E started the OWS he had to keep pressing the fresh water flushing button on the SWOMS. At 1308 the SWOMS stated the OWS overboard valve was opened. According to the SWOMS at 1316 LT the BHT was at 0.51 m or 5.93 m³. At about 1348 the 15-ppm alarm kept going off. The BHT sounding was 0.34 m or 3.375 m³. The total volume of the BHT is 43.3 m³. Therefore the tank was at about 7% of its capacity. The C/E told the 2/E to open the sea water valve to the bilge pump to dilute the fluid going into the OWS. I told the C/E to not do that since it is not how the system should be operated. I asked to C/E why the alarm began going off and he told me that there is rust in the pipe and this is causing the 15-ppm to go off. This did not make sense to me. There is currently no company policy on the minimum level of the BHT to operate the OWS. It is highly recommended the company enact a policy to not operate the OWS when the BHT drops below 20% of the tank volume. The OWS ran from 1308 to 1348. The difference between the BHT soundings was 2.99 m³ with an hourly rate of 4.48m³/hr.

The oily water separator is capable of drawing and discharging the entire content of the bilge holding tank, therefore there is no need to implement a policy regarding the minimum level of the bilge holding tank to operate the oily water separator. Furthermore, the implementation of such a policy would reduce the tank's overall capacity to hold bilges.

The presence of rust in the bilge holding tank may lead to difficulties in running the oily water separator. In order to avoid any such difficulties, the bilge holding tank should be maintained clean and free of rust.

The instructions in the vessel's PMS have been amended in order to require that the bilge holding tank is emptied and thoroughly cleaned each and every six months.

Furthermore, the procedure regarding the operation of the oily water separator has been amended to require that in the event the operation of the oily water separator encounters difficulties due to a build up of rust at more frequent intervals than the required inspection intervals, the bilge holding tank shall be opened up for cleaning.

Attachment V Amended Procedure

The issue did not occur at the time of the internal audit.

- 21) The bilge piping diagram does not show the modifications done to the OWS and OCM for the enviro-logger. There does not appear to be any Class approval for these modifications. It is highly recommended class approve these modifications to the system to ensure they are installed properly.

The company's Technical department contacted the vessel's Classification Society, ABS. ABS advised that the mentioned installation is not considered a major modification and therefore does not require class approval.



IONIA MANAGEMENT S.A.

12 LASKOU STR., 18536 PIRAEUS, GREECE - Phn:+30 210 4283860, Fax:+30 210 4283865, Tlx: 215006, E-mail: info@ioniaman.gr

Furthermore, the unit's maker, Vigilant Marine, has advised us that the unit was previously submitted to ABS, for approval by another company. ABS reverted that there are no specific requirements in the Rules for this type of equipment and that they have no objection to its use on vessels classed with them.

Attachment W ABS Letter

The item was not within the scope of the internal audit.

- 22) There is a fresh water flushing system off of the discharge side of the OWS, which does not have any seals on the flange. It is recommended this system have seals on the flanges.**

It was established that the fresh water flushing system of the oily water separator's discharge line has been included in the drawing indicating the locations where seals are required to be placed.

Seals had been omitted to be placed as per requirements.

The Chief Engineer has verified that seals have been placed as required.

Attachment X Seals on Fresh Water Flushing Line on discharge side of the OWS

The item was not within the scope of the internal audit.

- 23) Pages 48-49 of the incinerator manual are only in German. It is recommended these pages be translated to English or the language of the crew.**

The mentioned pages refer to the UDC-35 Digital Regulator. However, the specific item does not apply to the incinerator installed onboard the vessel. The unit installed onboard the vessel comprises of a UDC-35 Panel Controller. The relevant pages included in the incinerator manual are in English.

Attachment Y Incinerator Manual Pages

The item was not within the scope of the internal audit.

- 24) The ballast water reporting forms were reviewed. It was determined that all forms submitted to the U.S. are not being printed up and signed by the C/O. I asked to see the last Ballast Water Reporting Form for the vessels visit to Savannah, GA on 6 Nov 2010. The C/O could not find it. Eventually the Master found it on his computer, printed it out and signed it. The C/O who prepared the reporting form was no longer on board the vessel. It is recommended that when the forms are submitted electronically it is also printed and signed by the C/O generating the report.**

Ballast water reporting forms are required to be submitted to the authorities in electronic format. The vessel did not consider it necessary to print out the forms as they are being submitted electronically. Furthermore, there is no requirement that the form is signed by the responsible officer.

However, the Master has been instructed to print out copies of ballast water reporting forms and request that the responsible officer sign the form accordingly.



IONIA MANAGEMENT S.A.

12 LASKOU STR., 18536 PIRAEUS, GREECE - Phn:+30 210 4283860, Fax:+30 210 4283865, Tlx: 213006, E-mail: info@ioniaman.gr

The item is not within the scope of the internal audit.

- 25) SWOMS data for tank soundings was compared against manual tank soundings.
The following table shows the results:

Date & Time: 1807 Panama Time: 3/13/2011							
Tank	Cap. (m3)	Manual (cm)	Manual (m3)	SWOMS (cm)	SWOMS (m3)	Diff. (m3)	% Diff. (m3)
BHT	43.3	55.5	6.51	54	6.35		0.37
SBOT	35.8	165	18.58	161	17.84		2.07
Pur. Sludge	6.6	42	3.64	38	3.32		4.85
WOST	1.89	60	.878	65	.95		3.81

Date & Time: 1400 Panama Time: 3/14/2011							
Tank	Cap. (m3)	Manual (cm)	Manual (m3)	SWOMS (cm)	SWOMS (m3)	Diff. (m3)	% Diff. (m3)
BHT	43.3	34	3.375	32	3.14		0.54%
SBOT	35.8	168	19.09	169	19.34		0.70%
Pur. Sludge	6.6	43	3.73	43	3.7		0.45%
WOST	1.89	52	.761	60	.88		6.30%

Date & Time: 0913 Panama Time: 3/15/2011							
Tank	Cap. (m3)	Manual (cm)	Manual (m3)	SWOMS (cm)	SWOMS (m3)	Diff. (m3)	% Diff. (m3)
BHT	43.3	36	3.64	35	3.47		0.39
SBOT	35.8	171	20.06	161	17.91		6.01
Pur. Sludge	6.6	43	3.73	43	3.7		0.45
WOST	1.89	12	0.18	14	0.19		0.75

Date & Time: 1703 Panama Time: 3/15/2011							
Tank	Cap. (m3)	Manual (cm)	Manual (m3)	SWOMS (cm)	SWOMS (m3)	Diff. (m3)	% Diff. (m3)
BHT	43.3	36	3.65	38	3.93		0.64
SBOT	35.8	172	19.78	166	18.71		2.99
Pur. Sludge	6.6	30	2.58	30	2.55		0.47
WOST	1.89	87	1.23	93	1.36		6.88

Date & Time: 0904 Panama Time: 3/16/2011							
Tank	Cap. (m3)	Manual (cm)	Manual (m3)	SWOMS (cm)	SWOMS (m3)	Diff. (m3)	% Diff. (m3)
BHT	43.3	40	4.21	39	4.04		0.38
SBOT	35.8	172	19.78	173	19.95		0.47
Pur. Sludge	6.6	33	2.84	30	2.59		3.79
WOST	1.89	80	1.17	84	1.23		3.12



IONIA MANAGEMENT S.A.

12 LASKOU STR., 18536 PIRAEUS, GREECE - Phn:+30 210 4283860, Fax:+30 210 4283865, Tlx: 215006, E-mail: info@ioniaman.gr

Date & Time: 1808 Panama Time: 3/16/2011							
Tank	Cap. (m3)	Manual (cm)	Manual (m3)	SWOMS (cm)	SWOMS (m3)	Diff. (m3)	% Diff. (m3)
BHT	43.3	42	4.6	40	4.27		0.75
SBOT	35.8	174	20.13	144	15.17		13.85
Pur. Sludge	6.6	33	2.84	31	2.67		2.58
WOST	1.89	38	0.32	38	0.32		0

The above soundings were taken by the oiler in my presence. When the soundings were taken the vessel was either at anchor or under way with very little swell, therefore there was minimal movement of the vessel that could skew the soundings. The daily sounding document, ENV 023, is filled out every day and the C/E is calculating the % difference for the morning daily soundings. While I was onboard, the 14 Mar 11 soundings had a difference between the actual soundings and the SWOMS of 8.6% for the Bilge Oil tank. As can be seen above, there were a few occasions when some of the tanks were more than 5% difference. The C/E thinks the difference related to the Oily Bilge tank is related to the fact that the tank is being heated and there is vapor in the tank which is distorting the radar return in the tank. This sounds plausible. It was recommended during the initial audit that "to ensure manual soundings are as accurate as possible, I recommend that the procedure for taking soundings include taking at least three manual soundings each time and recording the average or median value." This was not done when I was onboard. It is recommended this be adopted. On 4 Feb 2011, the BHT SWOMS level indicator was re-calibrated by a shore technician.

The company's procedures require that three soundings are taken and the average is recorded in the tank sounding log book.

The Chief Engineer has been instructed to implement the company's procedure in accordance with requirements.

The issue has been distributed throughout the fleet and all vessels have confirmed that the daily tank sounding procedure is being implemented in accordance with the company's requirements.

The issue did not occur at the time of the internal audit.

Prepared By:

Krystyna Tsochlas

Safety & Quality Manager

For and On Behalf Of

Ionia Management S.A.