

Appendix E

Krystyna Tsochlas

From: Rich Wigger [rwigger@colonialmarine.com]
Sent: Παρασκευή, 15 Ιανουαρίου 2010 3:27 πμ
To: QSM Ionia Management
Cc: Robert Bundy; James Sanborn; ROBBIE SHEA; ALAN WEST
Subject: (PN:218705)RE: 211125)Fleet Engineering Survey

Good day Krystyna,

Once again, my apologies for the delayed response. I have reviewed the requirements for the Fleet Engineering Survey as contained in Attachment A to the Scope of Work, the summary of responses attached to your email, and the Governments concerns with the adequacy of the survey as contained in Ms. Pettus' letter to Mr. Bundy dated December 23, 2009.

Attachment A to the Scope of Work requires the following:

IONIA shall survey its shipboard engineers on its vessels at all levels for information on how to make the OWS, OCM, associated systems and waste management processes tamper proof and for methods on reducing or handling waste accumulations within engine rooms, machinery spaces or pump rooms within three months of the implementation of this plan. An assessment requesting the frank opinions of the vessel's engineers into their ability to adequately maintain the vessel systems, equipment and components will be included. The survey will emphasize non-retaliation for open and honest opinions and reports of current non-compliant circumstances.

The CCM and his staff shall evaluate the responses and establish a plan to evaluate, test and implement viable tamper-proofing solutions, methods to reduce and handle waste ,accumulations, cargo slops and address the maintenance concerns suggested by the vessel engineers. A summary of the reported information and corrective actions will be provided to the points of contact noted above.

The specific questions posed in your survey, in my view, are directly related to and meet the intent of this requirement. The specific questions posed are:

1. Ways the OWS, OCM, associated systems and waste management processes can be made tamper proof: (How do you think we can make pollution prevention equipment tamper proof?)
2. Methods of handling and reducing waste accumulations within the Engine Room and machinery spaces: (Write your opinion on the best way to handle and reduce waste in the EIR. Do you have suggestions for improvement?)
3. Ability to adequately maintain the vessel systems, equipment, and components related to pollution prevention: (Do you think that you can maintain pollution prevention equipment properly? Do you have suggestions for improvement?)

Ms Pettus expresses the following concerns:

At the last hearing, there was concern about the adequacy of the questions contained in the fleet-wide engineering survey as it existed at that time. There is no indication in the current submission as to whether any changes or additions have been made. In Table 5, summarizing "Feedback from Shipboard Personnel regarding Implementation of EMP," on page 18 of Ionia's submission, there are two comments noted as having been received as suggestions through the required Fleet Engineering Survey:

*"Pollution prevention equipment to be checked or calibrated and follow company's procedures;" and
"Engine crew must be trained and familiar with the onboard systems."*

While both suggestions are obviously useful, they do not address the issue of "how to make the OWS, OCM, associated systems and waste management processes tamper proof," which is one of the key purposes of the survey and important in helping Ionia prevent future violations of MARPOL. It would be useful to hear Ionia's thoughts, and perhaps the IEC's as well, on how the current survey can be tailored to obtain that information and whether any changes were made since July 2009.

The summary of responses contained in your email, in my view, specifically address the issue of "how to make the OWS, OCM, associated systems and waste management processes tamper proof", including recommendations for the placement of seals on the sample line and discharge line, proper maintenance (which would negate the need to bypass), and proper training. I do not recall the concern about the adequacy of the questions at the last hearing. I do recall a discussion of the Fleet Engineering Survey not being distributed to the fleet and the recommendation that this be done as soon as possible. Perhaps you can refresh my memory on this. Also, for Mr. Bundy or Mr. Sanborn reading in, do you recall the specific concerns with the survey questionnaire?

Based upon my review, as detailed above, I do not have any suggestions for improvement of the survey.

Best regards,
Rich Wigger
Compliance Systems, Inc.

From: QSM Ionia Management [mailto:qsm@ioniaman.gr]
Sent: Monday, January 04, 2010 8:56 AM
To: Rich Wigger
Subject: (PN:211125)Fleet Engineering Survey

Fm: Ionia Management S.A.
To: Compliance Systems Inc.
Attn: Capt.R.Wigger

Dear Capt.Wigger,

First of all I would like to wish you a happy and prosperous new year!

As you must well know, Ms.Pettus has expressed concern regarding the adequacy of the Fleet Engineering Survey that is in currently in place.

As discussed during our meeting at our premises in early December, 2009, we consider that time is required for our shipboard personnel to become familiar with the purpose of the Fleet Engineering Survey in order for constructive feedback to be obtained from them.

The purpose of the Fleet Engineering Survey is discussed during the pre -joining familiarization that is carried out with personnel prior to the seafarer joining the vessel.

Our engineering officers are required to complete a Fleet Engineering Survey within three months of their signing - on onboard one of our vessels. Mr.Karagiorgis reviews the feedback that is provided through the completed questionnaire. All constructive feedback is taken into account during the annual Management Review meeting in order to consider implementation of any new ideas. In the event that the feedback is off - base or does not provide any constructive suggestions, a response is provided to the Chief Engineer of the vessel providing guidance on what is expected of the survey.

Please find attached a table of the feedback that has been provided by vessels to date.

Please provide any suggestions that you may have in order to tailor the survey in order to obtain more constructive and appropriate information.

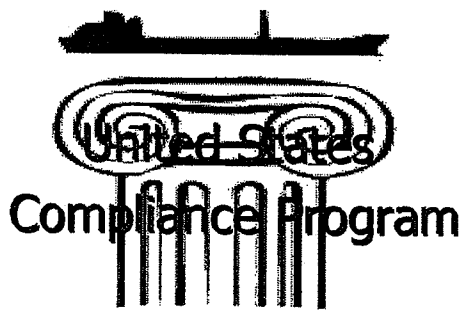
We look forward to any ideas that you may have.

Many thanks and best regards,
Krystyna Tsochlas
Safety & Quality Manager
Ionia Management S.A.

Please consider the environment before printing this e-mail

Appendix F

IONIA MANAGEMENT S.A.



M/T Kriton – Detention by the U.S.C.G.
(The 5 'Ws': Who / What / When / Where / Why)

Terms of Probation (Compliance Program) &
Company's initial activities since thereafter

A matrix of recommendations made by various parties shall be handed out for review.

Development of EMP (Environmental Management Plan)

M/T KRITON The "Incident"

(What and When happened)

- On the 20th of March, 2007, the vessel was detained by the USCG on the grounds of suspected violations of MARPOL 73/78. A further report was made on the 3rd of April, 2007 concerning the improper function of the vessel's OWS.
- The USCG's investigation resulted in criminal charges against the vessel's 2nd Engineer and the vessel's managing company.

- The slow pumping rate of bilge water through the separator and the time required to complete the operation, led the vessel's personnel to develop an abnormal approach to dealing with bilge water.
- A direct pumping overboard system was set up and then used resulting in an easy and speedy operation. The accumulated bilge water was pumped overboard through the boiler's water "blow down" piping facility.
- External piping was fabricated and connected in place of the boiler's overboard valve. Discharge from the bilge pump was directed through the external piping and completely by-passed the OWS, violating Marpol 73/78 regulations.

- A circular was distributed throughout the fleet informing of the incident and instructing them that such actions are considered completely unacceptable and are strictly forbidden.
- A procedure was prepared to monitor the daily sludge / bilge production and implemented throughout the fleet.
- All vessels were instructed to conduct a safety committee meeting concerning the issue in order to ensure that all personnel were made aware of the situation.
- Company representatives attending the company's vessels conducted safety committee meetings emphasizing Marpol issues and the management's commitment to safeguarding the environment.
- Furthermore investigations were carried out by company superintendents visiting the vessels to ensure a similar situation does not exist on any of the other vessels.

Primary causes of the incident:

The management failed to provide appropriate motivation and incentives to the individuals responsible for the issue.

Contributing causes of the incident:

- Lack of awareness on the part of the individuals responsible for the issue regarding the criminal implications/omissions of their actions.
- Lack of appropriate motivation on the part of the individuals responsible for the issue.
- Lack of reporting on the part of the individuals aware of the situation onboard the vessel.

- Company's procedures and instructions were disregarded **resulting in the company being held criminally liable.**
- An individual's convenience and personal gain was placed above the company's requirements resulting in the compromise of the environment.
- It was established that although other crew members were aware of the situation, they failed to report it to the company.

- Lack of appropriate motivation on the part of the individuals involved in the incident.

Lack of awareness on the part of the individuals regarding environmental regulations and the criminal implications of their actions/omissions.

- In spite of the efforts made and the measures in place up until that point in time, failure on the part of the company to provide appropriate motivation and incentives to the responsible individuals.

- Responsible individuals involved in the incident are not re-hirable.
- Installation of unique numerical "tags" in way of all flanges and bolting arrangements of relevant piping.
- Purchasing of high-tech equipment (radar/transmitter oriented) to continuously monitor and record the level of all tanks and bilge wells associated with the IOPP certificate.
- Enhancement of the pre-joining and onboard training program of sea-going personnel in order to further promote the significance of pollution prevention and the management's commitment to pollution prevention.
- Revision of familiarization manuals with a view to promote the company's specific requirements regarding the handling of waste generated onboard.
- Frequent attendance of higher management at manning agent with an aim to promote the management's commitment to safeguarding the environment.
- Enhancement of the vessel attendance procedure by including specific reference to ensuring compliance with environmental procedures.
- Additional personnel has been employed in order to assist in enhancing audit frequency.

- Revision of familiarization manuals with a view to promote the company's specific requirements regarding the handling of waste generated onboard.
- The promotion of the company's no-blame culture.
- Development of an anonymous reporting procedure for notification of environmental violations.
- Development of a company "ethics code".
- A study has been carried out regarding the ability to increase the bilge tank capacity onboard the exiting vessels.

- Following the detention of the M/T Kriton in May, 2007, Ionja Management S.A. has been placed under probation for a period of four years. During the period of probation, any company managed vessel to call at a U.S. port is required to comply with the terms of probation.
- Ionja Management S.A. has placed two of her vessels under the terms of probation, the M/T FIDIAS and the M/T THEO T (vessels most likely to call US).
- In order to monitor the company's compliance with the terms of probation, a Special Master has been appointed by the U.S. District Court, District Court of Connecticut.
- The Special Master is assisted by two consultants, the IEC (Independent Environmental Consultant) and the ICC (Independent Corporate Consultant) who provide the necessary technical expertise.
- The IEC is responsible for auditing the company's vessels while the ICC is responsible for assessing the company's management system.
- IEC: Capt. R. Wigger
- ICC: Mr. James Sanborn
- The Company has defined and appointed a Corporate Compliance Manager (CCM) who will be responsible to ensure that the Company complies with the requirements of probation.
- CCM: (Company's Technical Manager)

CORPORATE COMPLIANCE MANAGER (CCM)

(Company's Technical Manager)

The terms of probation include the following requirements:

- The implementation of an environmental tag system.
- Notification to all vessels regarding the prohibition against the use of cross connections from engine room bilge mains to suction piping of larger pumps.
- All other bilge suction valves to be labeled and brightly colored.
- All blank flanges (and removable flanges associated with any piping leading overboard) shall be permanently secured, removed or fitted with seals.
- The coloring of the OWS discharge connection to the sample flush line control valve.
- Testing of the OCM on a monthly basis and calibration by an authorized technician on an annual basis.
- Cleaning of the OWS source tank every 6 months.
- Tank soundings of all waste, sludge and bilge tanks on a daily basis.
- Development of a procedure for monitoring oil-to-sea interfaces.
- Installation of a S.
- Development of a procedure where the C/E shall review and compare ORB entries against daily tank soundings and engine alarm print outs and shall initial the engine room alarm printouts upon his review of them.
- Submission of the mentioned records to the company on a monthly basis for review.
- Submission of the mentioned records and the company's review to the U.S. Department of Justice for review.
- Development of procedure where the previously mentioned records are compared to the SWOMS data.

- In July, 2008, the IEC carried out the initial audit on the M/T THEO T.
- Scope of the initial audit is to ascertain and evaluate all aspects of vessel equipment, training and operations affecting oily waste production and management practices.
- Upon completion of the Initial Audit, the IEC reported to the Special Master that the outcome of the audit was encouraging:
- *The engine spaces were found to be clean;
- *engine room bilges were found to be free of oil;
- *waste management equipment was found to be working properly and crew had good knowledge of the probation terms;
- *The crew was observed to exhibit a positive and receptive attitude towards their obligations.
- The IEC recorded several observations regarding areas that required improvement. (See relevant matrix)

At the beginning of October 2008, the company was assessed by Mr. Sanborn at its premises. The outcome of the assessment verified the following:

- Good progress was being made towards the effective implementation of the probation terms.
- It was confirmed that Ionia's senior management is committed to properly implementing the requirements of the program.

Company's Bi - Annual Hearings

According to the terms of probation, Bi-annual hearings are required to be held with the Special Master in order to assess the company's progress regarding compliance with the terms of probation.

The first hearing was held on the 10th of December, 2008 in New Haven, Connecticut with the following results:

- Ionia has seriously undertaken to comply with the terms of probation.
- Although the SWOMS on the M/T THEO T is not yet fully in compliance with the terms of the probations, the system is feasible of implementation.
- Ionia has made substantial progress in developing a comprehensive EMS manual that conforms to the terms of Ionia's probation.
- The Special Master made several recommendations. (See matrix)

The second hearing was held on the 9th of July, 2009 in New Haven, Connecticut with the following results:

Ionia has made substantial progress in compiling equipment and instituting procedures to achieve a high level of compliance with United States, international and industry environmental standards. Ionia's Environmental Management Representative and his Corporate Compliance Manager both demonstrate well-considered systematic approaches to assure high standards of environmental accountability. Ionia has installed a SWOBS in compliance with the requirements of the terms and conditions of its probation and the Special Master's Order. Ionia has instituted an Environmental Management Plan pursuant to the recommendations of the IEC. The Environmental Management Plan addresses many of the issues raised in the initial audits of the covered vessels. Ionia has established a comprehensive training program both at its offices in Greece and at its shipping agent in the Philippines. The full training program, including computer-based training, has not yet been fully implemented but it is expected to be in full operation within six months. Ionia has submitted its shipboard records as required in the requirements of the terms of probation.

The Special Master made further recommendations. (See matrix)

Following the Initial Audit performed by the IEC onboard M/T Fidias (end of January, Beginning of February 2009), the following were concluded:

Confusion in maintaining the seal log book (no proper instructions were provided)

A form for seal installation should be provided.

Waste stream management procedures should be developed.

Training Programs to all crew members for Environmental awareness should be developed.

The Company to address the 'Management of Change' procedure for new rules and regulations.

All crew members to become familiarized with the Environmental Compliance Program and Environmental Management System.

(Environmental Management Plan)

The Environmental Management Plan (EMP) has been developed to enhance compliance with ISO 14001 and to ensure compliance with the terms of probation under which the company has been placed.

The existing Quality and Environmental Management Manual has been separated into two manuals:

- a) Environmental Management Plan
- b) Quality Management Manual

The Environmental Management Plan consists of 14 sections.

Each section includes a description of the purpose of the procedure and the duties of personnel responsible for the implementation of the procedure.

No significant changes have been made to the existing procedures included in the Quality Management Manual.

(Environmental Management Plan)

SECTION 1: COMPANY'S POLICIES RELATED TO THE ENVIRONMENT

The purpose of the section is to communicate the company's policies related to the environment to all personnel both onboard and ashore. The following policies have been developed to meet the company's requirements:

- * Environmental Policy
- * Ethics Policy
- * Non-retaliation Policy

* Above policies are additional to the Company's Safety, Quality and Environmental Protection Policy and Drug & Alcohol Policy

(Environmental Management Plan)

ENVIRONMENTAL POLICY

Ionia Management S.A. is committed to continuous efforts to improve environmental performance throughout its operations and towards a cleaner marine environment. Furthermore the Company is committed to pollution prevention that emphasizes source reduction, including financial and human resources necessary to effectively maintain and repair the systems, equipment and components found in machinery spaces of vessels;

- *to continuous reduction of environmental risks;*
- *to continuous reduction of waste production as far as practicable;*

It is the Company's goal to conduct its business in a manner that balances environmental and economic needs of the communities in which it operates.

The Company's goal is to achieve ZERO incidents and ZERO spills at sea through continuous improvement.

(Environmental Management Plan)

ENVIRONMENTAL POLICY

In order to achieve this goal, the Company will:

- *comply with all applicable environmental laws, rules, regulations and requirements and apply responsible standards where laws, rules, regulations and requirements do not exist;*
- *respond quickly and effectively to environmental incidents resulting from its operations, in co-operation with industry organizations and authorized government agencies;*
- *show concern and respect for the environment, emphasizing every employee's responsibility in environmental performance and implementing appropriate operating practices;*
- *ensure that appropriate training in order to enhance environmental awareness is provided for all personnel both onboard and ashore;*
- *undertake appropriate reviews and evaluations of its operations to measure progress and to ensure compliance with this Policy;*

(Environmental Management Plan)

ENVIRONMENTAL POLICY

evaluate industry's incidents and accidents and utilize them as case studies in order to prevent future occurrence;

- *work to implement timely development of effective environmental laws and regulations in a justifiable manner;*

manage its business with the goal of preventing environmental incidents and of controlling emissions and wastes to below harmful levels as far as practicable;

- *design, operate and maintain ships and offices to this end;*
- *be against any incentive or bonus programs based on minimizing operational costs associated with the operation, maintenance and repair of machinery space systems, equipment and components to ensure that employees do not avoid such costs and thereby sacrifice environmental compliance;*
- *share its experience with others to facilitate improvements in industry performance.*

(Environmental Management Plan)

ETHICS POLICY

Ionia Management S.A. is committed to promoting a trustworthy and honest atmosphere to reinforce the vision of ethics within the company.

Top management within Ionia Management S.A. shall set a prime example. In any kind of business, honesty and integrity must be the top priority for management.

Management shall be open to communication with employees and must welcome suggestions and concerns from employees. This will allow employees to feel comfortable discussing any issues and will alert management to concerns within the workforce.

- *Management shall disclose any conflict of interests regarding their position within Ionia Management S.A.*

Ionia Management S.A. employees shall treat everyone fairly, have mutual respect, provide a team environment and avoid the intent and appearance of unethical or compromising practices.

(Environmental Management Plan)

ETHICS POLICY

Every employee shall apply effort and intelligence in maintaining ethics values.

Employees shall disclose any conflict of interest regarding their position within Ionia Management S.A.

Employees shall make every effort to increase customer satisfaction by providing quality services and timely responses.

Promotion of ethical conduct within interpersonal communications of employees shall be recorded.

(Environmental Management Plan)

ETHICS POLICY

Ionia Management S.A.'s employees shall:

Act with integrity, competence, dignity and in an ethical manner when dealing with the public, clients, employers and colleagues;

Be proactive;

Practice and encourage others to practice in a professional and ethical manner that will reflect credit on the company's employees and their shipping profession;

Strive to maintain and improve their competence and the competence of others in the profession;

Use reasonable care and exercise independent professional judgment.

The above is more fully described in Ionia's Ethics Code booklet which is distributed to Ionia's shore based and shipboard personnel.

(Environmental Management Plan)

NON-RETALIATION POLICY

Ionia Management S.A. is committed to maintaining a culture that provides the prevention, detection and resolution of instances of conduct that do not conform to regulations, requirements, policies and procedures or company requirements and the company Ethics Code.

It is understood that employees both onboard and ashore may not report concerns if they feel they will be subject to retaliation or retribution or harassment for reporting the concern.

Adherence to the company's Ethics Code makes each of us responsible for bringing suspected violations of applicable standards, policies, regulations or requirements to the attention of the responsible person. Raising such concerns is a service to the company and will not jeopardize one's position or employment. No individual reporting any suspected violations shall be disciplined or otherwise retaliated against for such reporting.

(Environmental Management Plan)

NON-RETALIATION POLICY

In this light, a non-retaliation policy has been established to reassure employees who wish to report concerns in accordance with the "Anonymous Reporting Procedure".

Top management, managers or employees are not permitted to engage in retaliation, retribution or any form of harassment directed against an employee who reports a compliance concern. Anyone who is involved in any act of retaliation or retribution against an employee that has reported suspected misconduct in good faith will be subject to disciplinary action or dismissal.

However, it shall not be considered retaliation to take steps to discipline persons who knowingly or intentionally make false claims of misconduct or for the company to take alternative steps to prevent or correct damage to persons when it is determined that allegations of misconduct against them are false.

SECTION 2: LEGAL AND OTHER REQUIREMENTS

Company's Process to identify legal or other industry requirements related to its environmental aspects and description of its action plans to apply these regulations and requirements.

Example: Marpol Annex VI – how this will affect the Company's operations, and what the Company will do (what actions will it take), to implement it.

The Environmental Management Representative (EMR) is responsible for ensuring that the list of legal requirements pertaining to the environment is maintained updated.

The updated list is provided to the vessels on an annual basis or each time it is amended.

The updated list is provided to the vessels on an annual basis or each time it is amended.

SECTION 3: ENVIRONMENTAL PLANNING

The procedure ensures that Company's activities affecting environment (both ashore and onboard) are identified and controlled as far as practicable.

Aspects of the company's activities that are identified to have an impact on the environment are assessed for the level of impact.

Environmental programs are established in order to improve the company's environmental performance.

The company establishes long term objectives. In order to achieve the long term objectives, targets are established.

The Environmental Programs include action plans in order to achieve the established targets.

All personnel onboard should be familiar with the company's Environmental Programs.

All personnel onboard should be familiar with the company's Environmental Programs.

SECTION 3: ENVIRONMENTAL PLANNING

The company has established the following environmental programs:

- PROGRAM NO 1:** Barge and Sludge Handling
- PROGRAM NO 2:** Cargo handling including transportation and delivery and operational accidents
- PROGRAM NO 3:** Bunkering Operations
- PROGRAM NO 4:** Oily rags, plastics, metals, glass, packing materials
- PROGRAM NO 5:** Ballast Water Handling
- PROGRAM NO 6:** Disposal of batteries/printer cartridges/fluorescent bulbs
- PROGRAM NO 7:** Crew Accommodation – Disposal of sewage
- PROGRAM NO 8:** Paper Consumption

PROGRAM NO 1: Barge and Sludge Handling

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PROGRAM NO 6: Disposal of batteries/printer cartridges/fluorescent bulbs

PROGRAM NO 7: Crew Accommodation – Disposal of sewage

PROGRAM NO 8: Paper Consumption

EXAMPLE OF ENVIRONMENTAL PLANNING ON COMPANY'S ASPECT:

SECTION 4: COMPANY STRUCTURE AND RESPONSIBILITIES

The Section describes each member of personnel's duties and responsibilities regarding the environment both onboard and ashore.

The company's DPA has been appointed as the ENVIRONMENTAL MANAGEMENT REPRESENTATIVE ashore.

The Chief Officer has been appointed as the ENVIRONMENTAL OFFICER onboard.

SECTION 4: COMPANY STRUCTURE AND RESPONSIBILITIES

The **Environmental Management Representative** is responsible for:
Ensuring that environmental management system requirements are established, implemented and maintained in accordance with the requirements of ISO 14001.

Reporting on the performance of the environmental management system to the Managing Director for review and as a basis for improvement of the environmental management system.

Ensuring that audit results are brought to the attention of the Managing Director and all personnel having responsibility in the area involved so that the necessary corrective actions can be taken.

Maintaining the list of environmental legislation applicable to the company's activities.

Maintaining the list of environmental aspects of the company's activities.

SECTION 4: COMPANY STRUCTURE AND RESPONSIBILITIES

The **Chief Officer** is the appointed Environmental Officer and he is responsible for:
Implementing the Garbage Management Plan and ensuring that regulations regarding garbage disposal are followed, under Master's supervision.

Measuring, monitoring and managing, on a daily basis, shipboard generated wastes.

The proper updating of Garbage Record Book and any other logbooks required by the ENVIRONMENTAL MANAGEMENT PLAN or other maritime environmental protection requirements such as the ORE.

Supervising Chief Cook regarding his duties & responsibilities related to environmental requirements.

The enforcement of pollution prevention measures relating to the transfer of any oil including bunkers.

Providing training to shipboard personnel on environmental policies and procedures including but not limited to training on pollution prevention equipment, response in oil spills, completion of any log books required by the Environmental Management Plan or other maritime environmental protection requirements, etc.

Ensuring that all adequate anti-pollution measures are in operation as required by MARPOL, Flag State and port regulations.

Maintaining the relevant section of the Oil Record Book.

Liaising with C/E with regards to stability and stress when bunkering.

SECTION 4: COMPANY STRUCTURE AND RESPONSIBILITIES

All other members of **shipboard personnel** are responsible for:

Ensuring that they are aware of all legislation related to the environment.

Ensuring that they are familiar with the requirements of the company's environmental management system.

Ensuring that his actions onboard the vessel shall not in any way compromise the environment.

Each member of personnel must fully understand and accept his responsibilities with regard to the environment.

Ensuring that any violation of legislation related to the environment is reported to the Master or directly to the EMR.

SECTION 5: OPERATIONAL CONTROLS

The purpose of the section is to describe the operational controls in place for reducing, recycling, reusing, minimizing and preventing waste releases.

Environmental Tag Systems

Seals are installed on all flanges in the engine room sludge lines, bilge lines, sewage and grey water overboard lines and boiler blow down lines.

The seals are installed in accordance with guidelines provided by the company's Technical dept.

Each seal has a unique ID number.

The Chief Engineer maintains the E/R Seal log book listing the flanges that have seals placed on the and the relevant seal number.

Each and every time a seal is broken, the fact is recorded in the E/R Seal Log Book with relevant explanations for the reason that it was broken.

A piping diagram indicating the location of the seals is attached to the E/R Seal log book. Only one seal is to be placed on each flange. The use of multiple seals is not recommended.

Spare seals are maintained by the Master and placed in a safe location. The Master maintains the Spare Seal log Inventory.

Each time a spare seal is requested from the Master, this is noted in the Spare Seal log inventory.

SECTION 5: OPERATIONAL CONTROLS

The purpose of the section is to describe the operational controls in place for reducing, recycling, reusing, minimizing and preventing waste releases.

Bilge Main Cross Sections

The use of cross connections between the bilge suction piping from E/R bilge wells / bilge tanks and the suction of E/R pumps other than the dedicated bilge pump is prohibited.

Connection of the bilge suction piping to the fire, general service, sea water cooling and ballast pumps via existing permanent piping and valves or via temporary hose connections is strictly prohibited. The connection of such piping is an illegal practice, equivalent to by-passing the Oily Water Separator.

SECTION 5: OPERATIONAL CONTROLS

Where permanent piping interconnections between the bilge system and the sea water system exist, the following measures should be taken:

- **The deck plates above or near the cross connections and the valve bodies and associated hand wheels shall be painted with international orange.**
- **A brightly coloured sign with three inch letters shall be permanently fixed nearby. The sign shall read: "Bilge System Piping Crossover – Emergency Use Only".**
- **All cross connection valves shall be closed and secured with numbered seals.**
- **If valves are remotely operated from the ECR, the associated push button must also be sealed and a sign identical to the one mentioned above posted near it.**

SECTION 5: OPERATIONAL CONTROLS

Emergency Bilge Suctions

Dedicated emergency bilge suction valves shall be painted brightly. A brightly coloured sign with three inch letters shall be permanently fixed nearby. The sign shall read: "Emergency Bilge Suction – For Emergency Use Only". The emergency suction valve wheels shall also have a seal capable of breakaway during an emergency.

Bilge and Sludge Lines

All other crossover valves, direct suction valves of the bilge line, overboard valves such as boiler blow down and all flanges of the bilge line and the sludge line will be fitted with seals as per the Technical department guidelines.

SECTION 5: OPERATIONAL CONTROLS

Blank Flanges

To prevent unauthorized connections within the engine room and machinery spaces, every blank flange associated with any piping leading overboard on systems such as saltwater service, main engine raw water cooling, or other systems shall be permanently secured, removed, or fitted with a seal as per the Technical department guidelines.

SECTION 5: OPERATIONAL CONTROLS

Extraordinary E/R Operations Monitoring

Any extraordinary operations such as:

- the need for frequent draining of fuel oil service and settling tanks and engine lube oil sump tanks of excessive water
- waxing, compatibility, stratification or other contamination problems

Such operations shall be recorded and explanations provided for the handling of unburned sludges, oils, oily wastes and used filters.

Records shall be maintained in the Extraordinary E/R Operations Log Book.

SECTION 5: OPERATIONAL CONTROLS

Unintended/Accidental Release of Water, Fuel Oil and Lub Oil from any E/R Machinery

In the event that a line or component on a fuel, lube or waste oil system fails, including high pressure lines on diesel engines or due to an operational error, a record shall be made providing details on the quantity of fluid released and an explanation as to how the unintended release of quantity was handled shall also be recorded. Unintended releases of quantities of water, salt or fresh condensate or cooling shall also be recorded in the Extraordinary E/R Operations Log Book. Records shall be made in the Extraordinary E/R Operations Log Book.

SECTION 5: OPERATIONAL CONTROLS

Leakages

In the event that any line or component on a fuel, lube or waste oil system fails, including high pressure lines on diesel engines, a record shall be made in the Extraordinary E/R Operations Log Book.

The quantity released and an explanation on how the unintended release of fluid was handled should be recorded in the Leakage log book.

Unintended releases of abnormal quantities of water (salt, fresh, condensate or cooling) shall also be recorded in a similar manner.

The entry into the Log Book shall include the following information:

- Date of event
- Type of fluid released
- Quantity of fluid released
- Source of released fluid
- Method of disposal of released fluid

SECTION 5: OPERATIONAL CONTROLS

Oil to Sea Interface Management

Tanks of shipboard systems having oil-to-sea interfaces where a leaking component may cause a loss of operating medium into the surrounding waters of the vessel shall be sounded on a daily basis. The performance of the soundings shall be entered into the engine log book. Any replenishment of oil into such tanks shall be logged regardless of quantity.

Ingress of water into or drainage of water from these systems and routine stern tube lube oil loss shall be logged and reported by the Chief Engineer to the Technical department immediately.

Shipboard systems having oil-to-sea interfaces where a leaking component may cause a loss of operating medium into the surrounding waters of the vessel are defined as the stern tube and the bow thruster where applicable.

SECTION 5: OPERATIONAL CONTROLS

Tank Sounding log

- Tank soundings of the tanks as per TOPP Form B shall be carried out on a daily basis by the designated engine room officer and recorded in the Tank Sounding Log.
- All entries in the Tank Sounding log shall be made handwritten in ink. Corrections made to entries shall be crossed out and initialed.
- Daily entries in the Tank Sounding log shall be initialed by the Engine Officer carrying out the soundings.

SECTION 5: OPERATIONAL CONTROLS

Fuel and Lube Oil Management and Bilge and Sludge Production Monitoring

The Chief Engineer shall maintain the Chief Engineer's Weekly Report.

The Chief Engineer's Weekly Report shall be submitted to the Technical dept. on a weekly basis.

The report is reviewed by the responsible Superintendent. In the event that any discrepancies are identified, an investigation shall be initiated in order to establish the root cause of the discrepancy.

Any increase in sludge production due to an automatic change in shoot interval settings must be entered into the Tank Sounding log with the relevant explanation.

Shoot interval settings or any other settings of the purifiers shall not be changed manually.

SECTION 5: OPERATIONAL CONTROLS

Pollution Prevention Equipment Management

The vessel shall maintain:

A list of critical pollution prevention equipment

A list of instruction manuals for the defined critical pollution prevention equipment

A list of acceptable chemicals specific to the OWS and OCM installed onboard

SECTION 5: OPERATIONAL CONTROLS

Inventory of Deck and Engine Room Flexible Hoses

The Chief Engineer and the Chief Officer shall maintain an inventory of all flexible hoses 40mm in diameter or more, in current use or stored aboard the vessel.

Each flexible hose shall be identified by a specific number that shall be in accordance with that listed in the inventory.

The Flexible Hose Inventory shall indicate each hose's location, diameter, type, length, whether it is in use and its usage.

The Flexible Hose Inventory shall be updated every six months and submitted to the Technical department.

SECTION 5: OPERATIONAL CONTROLS

The EMP also provides instructions on the following:

- Operating the Oily Water Separator and Oil Content Meter
- Testing the Oily Water Separator and Oil Content Meter
- Transferring Data from the Oil Content Meter
- Operating the Incinerator
- Operating the Sewage Treatment Plant

SECTION 6: WASTE STREAM MANAGEMENT

The flowchart illustrates the waste management process across six sectors: Industrial, Municipal, Commercial, Residential, Agricultural, and Other. Each sector's waste stream is managed through a series of steps, including generation, collection, transfer, and final disposal or treatment.

- Industrial Waste:** Waste is generated from various industrial processes and is managed through a series of steps, including collection, transfer, and final disposal or treatment.
- Municipal Waste:** Waste is generated from residential and commercial sources and is managed through a series of steps, including collection, transfer, and final disposal or treatment.
- Commercial Waste:** Waste is generated from commercial activities and is managed through a series of steps, including collection, transfer, and final disposal or treatment.
- Residential Waste:** Waste is generated from residential activities and is managed through a series of steps, including collection, transfer, and final disposal or treatment.
- Agricultural Waste:** Waste is generated from agricultural activities and is managed through a series of steps, including collection, transfer, and final disposal or treatment.
- Other Waste:** Waste is generated from other sources and is managed through a series of steps, including collection, transfer, and final disposal or treatment.

The flowchart shows the flow of waste from these sources to various management facilities, including landfills, incinerators, and recycling centers. The flow is indicated by arrows connecting the different stages of the waste management process.

SECTION 7: Handling of Non – Conformities, Observations and Incidents Related to the Environment

Reporting and Handling of Non – Conformities and Observations

Upon identification of a non – conformity or observation that may have effect on compliance with environmental compliance, an Environmental Non – Conformity / Observation report shall be issued. The report shall be submitted to the company's EMR for review and analysis in order to establish its root cause.

Corrective and preventive actions shall be established with an aim to eliminate the root cause of the non-conformity/observation and ensure that the issue shall not recur in the future.

A time frame for the implementation of the corrective / preventive actions shall be established and monitored.

SECTION 7: Handling of Non – Conformities, Observations and Incidents Related to the Environment

Reporting and Handling of Incidents

- 1. In the event of an incident, all actions shall be taken in accordance with the requirements of the Emergency Response Plan.
- 2. Once the situation has been brought under control, the Master shall issue an Environmental Incident report.
- 3. The incident shall be entered into all relevant log books as necessary.
- 4. The EMR shall initiate and co-ordinate an investigation of the incident in order to establish the root cause.
- 5. Corrective and preventive actions shall be established with an aim to eliminate the root cause of the incident and ensure that the issue shall not recur in the future.
- 6. A time frame for the implementation of the corrective / preventive actions shall be established and monitored.

SECTION 8: Continuous Evaluation and Improvement

Environmental Management Review

- 1. An Environmental Management Review shall be held at the company on an annual basis.
- 2. The agenda of the meeting shall include:
 - The minutes of the previous meeting
 - Review of targets and objectives
 - Review and assessment of the Environmental Programs
 - Feedback provided from Master's Environmental Reviews
 - Feedback provided from Fleet Engineering Surveys
 - Incidents, accidents and near misses related to the environment
 - Results related to the environment from 3rd Party Inspections
 - Environmental Training
 - Review of company's Environmental Policies
 - Review and evaluation of company's environmental performance
 - Proposal of performance targets for the coming year

SECTION 8: Continuous Evaluation and Improvement

Master's Environmental Management Review

- 1. The Master shall complete the Master's Environmental Management Review at least once during his tour of duty.
- 2. The Master's Environmental Management Review shall be completed within three months of taking command of the vessel.
- 3. The purpose of the Master's Environmental Management Review is to evaluate the effectiveness of the Environmental Management Plan and seek ways in which to improve it.
- 4. The Master's Environmental Management Review shall be submitted to the EMR for review.
- 5. Feedback shall be provided to the Master following review of the Master's Environmental Management Review.

SECTION 8: Continuous Evaluation and Improvement

Fleet Engineering Survey

- 1. Each Engine Officer including the electrician shall complete the company's Fleet Engineering Survey within three months of signing – on onboard.
- 2. The Fleet Engineering Survey shall be submitted to the Technical Manager for review.
- 3. The purpose of the Fleet Engineering Survey is for each member of personnel to propose effective methods of improving waste stream management onboard the vessel.

SECTION 8: Continuous Evaluation and Improvement

Fleet Engineering Survey

DATA MANAGEMENT	ANALYSIS	REPORTING
1. Name of the organization	2. Date of the survey	3. Name of the auditor
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SECTION 8: Continuous Evaluation and Improvement

Internal Audits

Internal Environmental Audits shall be carried out on an annual basis by a qualified auditor from the company.

The aim of the audit is to:

- Verify the effective implementation of planned activities including monitoring, measurement and improvement processes.
- Verify actions taken as results from previous audits.
- Verify the effective and efficient use of resources.
- Identify opportunities for continuous improvement.
- Record identified non-conformities.

SECTION 8: Continuous Evaluation and Improvement

Internal Audits

The audit report shall include the following:

- Area audited
- Date of audit
- Purpose and scope of audit
- Auditor name
- Date/time of opening and closing meetings
- Audit plan
- Summary of audit results
- Non-conformity reports

SECTION 9: Document Control

Environmental Management System Structure

ENVIRONMENTAL MANAGEMENT MANUAL

U.S. COMPLIANCE PROGRAM ANNEX

FORMS

SECTION 9: Document Control

Document Control

All documents and forms indicate the effective date and the revision in the header of each page.

IONIA MANAGEMENT S.A.	Prepared by: DPA	Effective Date:
Revised:	Approved by: MD	Revision:
		Page: 1 of 1

SECTION 9: Document Control

Record Keeping

Guidelines regarding record keeping are provided for the following:

Oil Record Book Part I & II

Tank Sounding Log Book

Bilge and Sludge Receipts

Engine Log Book

Extraordinary E/R Operations Log Book

Engine Room Seal Log and Spare Seal Log Inventory

Garbage Log Book

Vessel Environmental Performance Report

Office Environmental Performance Report

SECTION 9: Document Control

Matrix of Environmental Management System Forms

Form Number	Form	Business Process	Subprocess (Function)	Frequency	Responsible	Approved	Effective Date	Revision	Page
EP1001	Initial Environmental Assessment	Initial	Initial	1	MD	MD	2010-01-01	1	1
EP1002	Environmental Assessment and Impact Study	Assessment	Assessment	1	MD	MD	2010-01-01	1	1
EP1003	Environmental Management System	Management	Management	1	MD	MD	2010-01-01	1	1
EP1004	Environmental Performance Report	Performance	Performance	1	MD	MD	2010-01-01	1	1
EP1005	Oil Record Book Part I & II	Record Keeping	Record Keeping	1	MD	MD	2010-01-01	1	1
EP1006	Tank Sounding Log Book	Record Keeping	Record Keeping	1	MD	MD	2010-01-01	1	1
EP1007	Bilge and Sludge Receipts	Record Keeping	Record Keeping	1	MD	MD	2010-01-01	1	1
EP1008	Engine Log Book	Record Keeping	Record Keeping	1	MD	MD	2010-01-01	1	1
EP1009	Extraordinary E/R Operations Log Book	Record Keeping	Record Keeping	1	MD	MD	2010-01-01	1	1
EP1010	Engine Room Seal Log and Spare Seal Log Inventory	Record Keeping	Record Keeping	1	MD	MD	2010-01-01	1	1
EP1011	Garbage Log Book	Record Keeping	Record Keeping	1	MD	MD	2010-01-01	1	1
EP1012	Vessel Environmental Performance Report	Performance	Performance	1	MD	MD	2010-01-01	1	1
EP1013	Office Environmental Performance Report	Performance	Performance	1	MD	MD	2010-01-01	1	1

SECTION 9: Document Control

Matrix of Environmental Management System Forms

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EP1001	Initial Environmental Assessment	Initial	Initial	1	MD	MD	2010-01-01	1	1
EP1002	Environmental Assessment and Impact Study	Assessment	Assessment	1	MD	MD	2010-01-01	1	1
EP1003	Environmental Management System	Management	Management	1	MD	MD	2010-01-01	1	1
EP1004	Environmental Performance Report	Performance	Performance	1	MD	MD	2010-01-01	1	1
EP1005	Oil Record Book Part I & II	Record Keeping	Record Keeping	1	MD	MD	2010-01-01	1	1
EP1006	Tank Sounding Log Book	Record Keeping	Record Keeping	1	MD	MD	2010-01-01	1	1
EP1007	Bilge and Sludge Receipts	Record Keeping	Record Keeping	1	MD	MD	2010-01-01	1	1
EP1008	Engine Log Book	Record Keeping	Record Keeping	1	MD	MD	2010-01-01	1	1
EP1009	Extraordinary E/R Operations Log Book	Record Keeping	Record Keeping	1	MD	MD	2010-01-01	1	1
EP1010	Engine Room Seal Log and Spare Seal Log Inventory	Record Keeping	Record Keeping	1	MD	MD	2010-01-01	1	1
EP1011	Garbage Log Book	Record Keeping	Record Keeping	1	MD	MD	2010-01-01	1	1
EP1012	Vessel Environmental Performance Report	Performance	Performance	1	MD	MD	2010-01-01	1	1
EP1013	Office Environmental Performance Report	Performance	Performance	1	MD	MD	2010-01-01	1	1

SECTION 10: Shipboard Personnel & Non – Crew Members

Pre – joining

- Prior to signing – on each seafarer shall be assessed for competency by carrying out a multiple choice test.
- The competency assessment shall indicate any areas of weakness that may require to be addressed with the further training.
- The seafarer shall also attend external training courses with an aim to enhance his environmental awareness.
- Upon satisfactory completion of the pre – joining familiarization program, the seafarer shall sign a "Declaration of Environmental Commitment".

Signing – On

- Upon signing – on, the crew member shall be familiarized with the requirements of the Environmental Management Plan.
- Engine Officers shall be trained in the use of all pollution prevention equipment in the engine room while Deck Officers shall be trained in the use of pollution prevention equipment related to deck operations.
- The Onboard Environmental Familiarization Form shall be completed for all seafarers.

SECTION 10: Shipboard Personnel & Non – Crew Members

Signing – Off

- Each seafarer's performance with regard to his environmental awareness shall be evaluated upon completion of his tour of duty.
- The Master shall assess deck personnel, while the Chief Engineer shall assess engine personnel.
- Prior to signing – off, the Master, Chief Officer, Chief Engineer, 2nd Engineer, Bosun, Electrician and Cook shall hand over the environmental components of their responsibilities to their replacement.
- Prior to signing – off the seafarer shall sign a "Declaration of Environmental Compliance".

SECTION 10: Shipboard Personnel & Non – Crew Members

Environmental Meetings

- Environmental Meetings shall be held on a monthly basis.
- The agenda of the meeting shall include:
 - The vessel's environmental performance
 - Incidents, observations and non – conformities related to the environment
 - Results of environmental audits and inspections held onboard the vessel
 - Monthly environmental notices provided by the company
 - Training and drills held onboard related to the environment and pollution prevention
 - Proposals for improving the vessel's environmental performance

The minutes of the meeting shall be recorded with the minutes of the Safety Committee meeting and forwarded to the company for review.

SECTION 10: Shipboard Personnel & Non – Crew Members

Environmental Protection Procedures for Non – Crew Members

- All visitors onboard the vessel who shall either sail with the vessel, carry out works onboard the vessel or attending the vessel shall be briefed regarding the company's environmental policy and requirements upon their arrival onboard.
- Upon completion of their briefing, they shall verify their acknowledgement of the briefing and sign the relevant statement accordingly.

SECTION 11: Anonymous Reporting Procedure

Any member of personnel, both ashore and onboard company managed vessels that may become aware of a situation that is detrimental to the company's integrity and reputation is obliged to report the issue to the Technical Manager.

The suspected violation may be reported anonymously, addressed to the Technical Manager, through any one of the following means:

- Toll free telephone number
- Anonymous reporting email
- Anonymous reporting letter by post mail

The contact details of the above are listed in the company's "Code of Ethics" pamphlet that is provided to all members of personnel prior to signing – on or when joining the company.

SECTION 13: U.S. Compliance Annex

- This section applies to the vessels that are under the terms of probation.

- M/T Fidas
- M/T Theo T

- The Technical Manager is appointed as the Corporate Compliance Manager (CCM).

- A copy of the Special Master's Scope of Work must be maintained by the Master and the Chief Engineer.

SECTION 13: U.S. Compliance Annex

The **Corporate Compliance Manager** is responsible for:

Co-ordinating with the Special Master in accordance with the terms of probation:

Ensuring the implementation and assuring compliance with the terms of probation.

Ensuring that observations resulting from any internal audit, inspection or record

review are appropriately documented, tracked and resolved and that such

resolutions are thoroughly documented in a format that can be readily audited.

Ensuring that each covered vessel submits copies of records submitted in

accordance with the terms of probation on a monthly basis.

Ensuring that no duplication of ETS seal numbers occurs and maintaining a master

tracking document indicating which series have been supplied to each vessel.

Selecting an appropriate laboratory in order to carry out an analysis of the bilge

samples provided by the covered vessels.

Evaluating responses provided by shipboard personnel through the Fleet

Engineering Survey and establishing a plan to evaluate, test and implement viable

tamper – proofing solutions and methods to reduce and handle waste

accumulations, cargo slops and address the maintenance concerns suggested by

the shipboard engineers.

SECTION 13: U.S. Compliance Annex

Daily Tank Soundings

Daily tank soundings of all tanks related to Form B of the TOPP are to be carried out by the responsible engine watchstander. The tank soundings are to be witnessed by the appointed Deck Officer. Both Officers shall sign the entries in the tank sounding log.

- The tank sounding log is to be handwritten in ink.

Bilge Sampling and OWS Performance Analysis

Bilge samples shall be taken from the engine room bilges, the OWS and the bilge holding tank.

The samples shall be forwarded to the appointed laboratory for analysis.

The analysis report shall be forwarded to the OWS makers in order to verify that the bilges are compatible with the OWS installed onboard.

SECTION 13: U.S. Compliance Annex

SWOMS (Envirologger)

The SWOMS has been installed onboard the covered vessels.

The SWOMS monitors the levels of all TOPP Form B tanks in the engine room as well as the operation of the Incinerator and the OWS.

Data from the SWOMS is automatically sent electronically to the company's premises.

The SWOMS shall be maintained and inspected in accordance with the Envirologger checklist.

The SWOMS data shall be compared with the engine room alarm printouts, Oil Record Book Part I entries and tank sounding log book entries on a weekly basis by the Chief Engineer.

The above data shall be submitted to the company's Technical dept. on a monthly basis for review.

*"Tell me and I will forget, Show me and I may remember, **INVOLVE** me and I will learn.."*

THANK YOU

Recommendations

a/a	Requirement
Requirements of Terms of Probation	
1	An Environmental Tag System (ETS) is to be implemented onboard preventing the unauthorized usage of connections within the engine room machinery spaces and unauthorized opening of any through hull connection. Numbered seals shall be installed to prevent the unauthorized connection to and discharge through piping systems that are or may be connected to the oily bilge system. The seals shall be non-reusable and uniquely numbered and an ETS log shall be maintained.
2	Notification to all vessels regarding the prohibition against the use of cross connections from engine room bilge mains to suction piping of larger pumps. Relevant notices to be posted above such cross connections. Valve bodies and hand wheels of such connections shall be painted international orange. ETS should also be placed on these cross connections.
3	All other bilge suction valves not connected to the bilge main and independent emergency suction to the vessel's engine room bilges shall be painted brightly and labelled as in item 2.
4	Every blank flange and potentially removable flange associated with any piping leading overboard shall be permanently secured, removed or fitted with numbered ETS tags.
5	OWS discharge connection to sample flush line control valve will be painted a bright colour and must be routed so that it is clearly visible to the extent possible for its entire length.
6	The OWS shall be tested on a monthly basis and calibrated by an external contractor on an annual basis.
7	The OWS source tank shall be cleaned at least every 6 months.
8	A Tank Sounding log should be maintained on a daily basis that requires the sounding of all waste, sludge and bilge tanks associated with bilge water and/or oil wastes to be carried out and recorded.
9	A procedure shall be developed for monitoring equipment having oil-to-sea interfaces.
10	A Special Waste Oil Monitoring System (SWOMS) shall be installed onboard which shall have the ability to electronically monitor and record all waste oil generation and processing in the engine room. The system must be able to generate reports that may be compared with the Oil Record Book entries, engine room alarm printouts and tank sounding log entries.
11	A procedure should be developed where the Chief Engineer shall review and compare ORB entries with engine alarm print outs and daily tank sounding log entries on a weekly basis. Above-mentioned records shall be submitted to the company for review and comparison on a monthly basis.
12	A procedure should be developed to compare SWOMS printouts with above mentioned data.
13	Incident reporting procedure has been amended to specify that the following events should be handled as incidents: a) Poor quality fuel received onboard b) Frequent draining of fuel oil service and settling tanks and engine lub oil sump tanks of excessive water c) Quantity released from any line or component on fuel, lub or waste systems, including high pressure lines on diesel engines d) Unintended release of quantities of water, salt, fresh, condensate or cooling.
Additional Company Requirements	
14	An anonymous reporting procedure shall be developed with an aim to encourage anyone who may hesitate to reveal his identity to report any environmental violations.
15	The company shall establish and promote a non-retaliation policy in order to enhance its no blame culture.

Recommendations

a/a	Requirement
16	The pre-joining training program to be enhanced and upgraded in order to provide significant focus on environmental issues.
17	A system of environmental auditing of company's vessels by company personnel shall be established. Audits with a focus on environmental issues shall be carried out in an attempt to closely scrutinize operations carried out onboard in order to verify that environmental compliance is evident.
18	The company shall implement a procedure where Monthly bulletins regarding pollution prevention issues shall be distributed throughout the fleet in an effort to enhance pollution prevention awareness onboard.
19	Advanced technology Oil Content Meters have been installed aboard all vessels. The OCMs shall have a memory that records all operations regarding the OWS for a period of 18 months.
20	The Environmental Management System is to be reviewed and amended in order to ensure that it is effectively promoting environmental awareness throughout the fleet.
21	The company to be certified for ISO 14001.
IEC Recommendations following Initial Audit Onboard M/T THEO T	
22	It is recommended that a separate EMS Manual under the guidelines of ISO14001. Once this manual is fully implemented aboard its vessels, it should be incorporated into Ionia's SQEM Manuals.
23	Recommend Ionia develop a formal Ethics Policy Statement requiring the reporting of any breach of environmental requirements to the Company and consequences for failure to report. In addition, recommend that a separate Non-Retaliation Policy Statement also be developed for the proper reporting of environmental, health and safety violations. These policies should be framed and posted in conspicuous areas throughout Ionia's vessels and included as part of the joining familiarization process.
24	Recommend that a Declaration of Environmental Compliance be signed by each Officer and crewmember upon joining and a Declaration of Environmental Compliance be signed by each officer and crewmember upon sign-off, attesting to no observed environmental violations while serving onboard.
25	A review is needed to add more specific duties and better define other crew members' roles and responsibilities.
26	The "Deficiencies Reporting and Handling" procedure is flawed as follows: A) It is not clear on the reporting form that the person reporting is not required to include his name if he wishes to remain anonymous. B) The reporting form is cumbersome and is not user friendly. The form should be simplified. C) The system relies upon the integrity of a single person to remove the forms from the locked box and forward to the CCM. Consideration should be given to requiring a numbered seal, in addition to the lock and a second person to witness the opening of the box, such as the C/O, C/E or a shore side superintendent.
27	Ionia needs to develop a specific procedure detailing the specific records to be submitted, the format for submission (e.g. summary report), the obligations of the vessel and the method of submission.
28	Recommend that Ionia report to the Special Master and the IEC its plans for the installation of the SWOMS. Once installed, Ionia should develop a procedure for the review and the analysis of the records generated as part of its EMS.
29	The installation of a clean drain tank to remedy this is planned for the vessel's upcoming dry-docking.
30	To document the vessel's compliance with this procedure, a Fuel Oil and Lube Oil Management Log Book should also be developed.
31	In order to ensure proper documentation and corrective measures, such leakages should be recorded in a separate Leakage Log Book.

Recommendations

a/a	Requirement
32	A specific Oil-to-Sea Interface Log Book should be developed and implemented. A procedure requiring for oil - to - sea interface systems to be monitored and recorded in the Engine Log Book has been included in the company's procedures.
33	The Tank Sounding Log Book should be reported to the CCM.
34	Procedures in the working language of the crew should be developed to specifically cover waste stream management operations in the areas of Oil Pollution Prevention, Black Water System, Hazardous Waste, Non-Hazardous Waste and Grey water. Procedures already exist in some areas; however these should be reviewed and modified as appropriate to be more specific and detailed.
35	An expanded and equipment specific procedure should be developed for the proper operational testing of the OWS aboard each of the covered vessels.
36	A procedure requiring the availability of manufacturer's instruction manuals for pollution prevention equipment such as the OWS, STP and incinerator in the ECR for ready reference by the engineering crew should be developed.
37	Maintenance recommendations contained in the manufacturer's instructions manuals pollution prevention equipment such as the OWS, STP and the incinerator should be incorporated into the vessels' planned maintenance procedures. Consideration should also be given to including such equipment as part of the vessels' Critical Equipment.
38	To ensure there is no unauthorized use of flexible hoses and flanged pipe sections should be inventoried, their purpose identified and kept in a secure area, prohibiting unauthorized access. Hoses currently in regular use, should be replaced with fixed pipe connections where practical.
39	A procedure should be developed for each type of OWS aboard Ionia vessels covering the use of acceptable and OWS compatible cleaning detergents used in the engine room. The procedure should also detail notices and warnings to be posted in the ECR and key locations in the engine room, warning against the use of non-compatible chemicals. Drainages to the bilges, which may contaminate the OWS source tank should also be prohibited.
40	Shipboard training requirements should be expanded to include shipboard related technical, maintenance and repair of pollution prevention equipment and systems. The training should be appropriate for the work responsibilities and department in which the crewmember works.
41	Pre-joining training and/or periodic shipboard training for all crewmembers should include: a) Discussion of the consequences to Ionia crewmembers for failure to comply with the requirements of the EMS and existing marine environmental protection requirements. b) Corporate environmental compliance structure including the role of the CCM. c) Overview of US and International Marine Environmental Protection Requirements. d) The reporting system to report non-compliance. e) Procedures for solid hazardous and non-hazardous waste segregation storage and disposal. f) Shipboard environmental procedures prescribed in the company's EMS.
42	Lesson plans, videos and CBT should be incorporated into Ionia's Training Program.
43	To encourage environmental compliance aboard managed vessels, Ionia should distribute to their vessels: environmental placards and/or posters.
44	An SMS procedure to require documentation of training and familiarization of the engineering crew with pollution prevention equipment such as the OWS, STP and incinerator should be developed. The shipboard familiarization and training procedure and checklist should include the operation of equipment and the detecting and reporting of accidental release of pollutants and should be ship specific.

Recommendations

a/a	Requirement
45	Environmental awareness criteria should be included in the crew evaluation process.
46	ORB guidance should be issued to require recording of all inspections and maintenance of the OWS, OCM, oil transfer piping arrangements, pressure testing of piping lines under code "I" in the ORB and to assist the vessels' engineers in making proper entries.
47	Through company newsletters, circulars, notices, etc. Ionia should actively encourage all vessel and shore side personnel to openly offer recommendations and suggestions which may reduce or eliminate any possible accidental or illegal environmental incidents.
Special Master Recommendations following 1st Special Master Hearing	
48	Ionia must establish a system to gather and transmit records in a timely fashion and on a monthly basis.
49	Ionia's newly appointed Corporate Compliance Manager must be made fully conversant with the requirements of the terms of probation.
50	Ionia must take all practical steps to implement full operation of the SWOMS and advise the Special Master, the IEC and the ICC of progress by the 15th of March, 2009.
51	Ionia should ensure its training program, including the computer - based training initiative is fully funded and implemented as soon as possible.
IEC Recommendations following Initial Audit Onboard MT FIDIAS	
52	On the vessel, there seemed to be some confusion in maintaining the seal log due to lack of proper instructions and guidance. All the seals received were signed on the form by the previous Master and Chief Engineer prior installation. Proper procedure for Seal Tag system is necessary in the SMS or EMS. The procedure has been reviewed and amended in order to provide clarification.
53	A new form will be required for the present staff to fill in to indicate the installation of the seals received.
54	Overall condition of the vessel and waste related machineries is very good. In light of recent incident, the company may look at revising documents in SMS related Waste Tream Management or introduce EMS as part of SMS to improve environmental performance. In future, the company should introduce value added dedicated training programs suited to responsibilities of individuals to increase environmental awareness, protection and pollution prevention by external and internal sources. This may help to prevent recurrence of environmental violations and inculcate compliance culture. The Waste Stream Management procedure has been reviewed and amended.
55	The ECP/EMS related training for sea staff prior joining the vessel in Philippines by the manning agents may have to be audited at least once during the probation period as to establish the content, delivery, qualifications, credibility of teachning staff involved and record keeping. the training syllabi should contain specific emphasis on ECP compliance, company EMS (if and when issued), Compliance Culture, MARPOL Annex I, IV, V, VI, OWS/OCM operation, ORB entries, US environmental rules and consequences of violations and a provision for refresher courses.
56	Verification of SMS/PMS as to the status of Waste Stream Management related equipment and procedures as required by ECP, e.g. all WSM related equipment should be treated as critical. Management has issued a document covering most of the aspects of ECP requirement and some of the documentation is in use, but it does not appear to be a part of overall SMS due to absence of cross referencing and identification number of documents.

Recommendations

a/a	Requirement
57	<p>There are provisions made for in - port testing of the OWS/OCM with OVBD skin valve closed for <15ppm effluent testing. In case for whatever reasons if the effluent is >15ppm then testing is not possible because the source tank and destination tank is the same namely bilge holding tank and it is not possible to get accurate measurements of effluent handled by OWS to rate its current hourly capacity against manufacturer's capacity.</p> <p>Company's Response: Please note that as per vessel's drawings, the OWS is able to draw effluent from both the bilge holding tank and the vessel's bilge wells. In the event that effluent is >15ppm, then effluent may be drawn from the bilge wells and directed to the bilge holding tank, allowing the capacity of the OWS to be effectively measured.</p>
58	<p>The OWS/OCM can be tested at sea with OVBD skin valve in open position for <15ppm effluent on this vessel. In >15ppm condition a foolproof provision should be available to send the effluent to bilges instead of BHT for testing purposes.</p> <p>Company's response: Please note that as per vessel's drawings, the OWS is able to draw effluent from both the bilge holding tank and the vessel's bilge wells. In the event that effluent is >15ppm, then effluent may be drawn from the bilge wells and directed to the bilge holding tank, allowing the capacity of the OWS to be effectively measured.</p>
59	<p>Presently there is no evidence existing in company's Safety Management System of internal environmental audit procedure detailing frequency, audit forms, nonconformance / closing etc. and training of auditors.</p>
60	<p>An EMS manual, though not required by Plea Agreement, may address the adequacy of policies, procedures, staff declarations, training/awareness program for employees, risk analysis matrix, aspect/impact, objectives and targets for a specified period of next 5 years; and cross referenced documentation for continual improvement of Environmental Performance in line with recommendation of EPA of USA.</p>
61	<p>The company may require addressing openly the need for Management of Change arising due to changes in rules, technology, best industry practices and company core values for Environmental issues from all the company.</p> <p>Company's Response: The company has had a procedure regarding Management of Change since 2007.</p>
62	<p>Open dialogue between the sea staff and shore staff during future periodic company safety seminars or workshops with internal and external participants in manning centres will help to increase the transparency between the two, and improve environmental performance.</p>
Special Master Recommendations following 2nd Special Master Hearing	
63	<p>The M/T THEO T and the M/T FIDIAS should be allowed to call on U.S. ports on the following conditions:</p> <ol style="list-style-type: none"> Ionía give notice to the representatives of the United States Department of Justice and the United States Coast Guard, Special Master and the Court of its intent to call on a U.S. port at the earliest practicable time, preferably within three (3) days of concluding a charter party contemplating calling on a U.S. port. All production of documents pursuant to the Special Master Order be up-to-date. Ionía allow for inspection of the calling vessel, including the SWOMS, by representatives of the government, the United States Probation Office, the Special Master and/or the Court, if practicable.

Recommendations

a/a	Requirement
64	In order to determine the practicability of a SWOMS system, Ionia should provide the Special Master and the government with a statement of the costs it has incurred in obtaining, installing, calibrating and maintaining the SWOMS.
65	In order to assess its commitment to environmental compliance, Ionia should provide the Special Master and the government with a statement of the costs it has incurred in creating and implementing the EMP. Ionia should report to the Special Master, ICC, IEC and the parties when its training program has been fully implemented.
66	Ionia should continue to work with the IEC in refining its fleet engineering survey.
67	Ionia consider instituting a website based anonymous reporting option and continue to work to establish a toll-free anonymous telephone line.