UNITED STATES DISTRICT COURT DISTRICT OF CONNECTICUT

UNITED STATES OF AMERICA,)
Plaintiff,)
vs.) CRIMINAL NO. 3:07-CR-134 (JBA)
IONIA MANAGEMENT S.A.,	
Defendant.)

SPECIAL MASTER'S THIRD REPORT

I. <u>Introduction and Status of Work</u>

This report is made pursuant to the Special Master Appointment and Scope of Work order dated April 18, 2008, in the above matter (the "Special Master Order").

The Special Master Order contemplates special master hearings will be held in the first weeks of December and June each year. However, due to scheduling difficulties and a pending operational assessment of the Special Waste Oil monitoring System ("SWOMS") the second Special Masters hearing was not held until July 8, 2009, leaving insufficient time between hearings to meaningfully assess Ionia's progress were a hearing to be set for December, 2009. Moreover, no on going audit of either Ionia's vessels covered by the Special Master Order, the M/T THEO T and the M/T FIDIAS ("the "Covered Vessels"), was scheduled until February 2010. Accordingly, by letter on November 11, 2009, the Special Master advised the parties that the third Special Master's hearing would be set for the week of January 18th, 2010 in New Haven, Connecticut, and set out the subjects to be addressed at the hearing. The parties were also invited to provide their views on whether information could be adduced without an in-

person hearing that would be sufficient for the Special Master to provide the court with an adequate report of findings and recommendations. In Response, Ionia Management, S.A. ("Ionia") requested the it be allowed to submit a report to the Special Master in lieu of attendance at a hearing in New Haven Connecticut. The matter was discussed in a conference call among the Special Master and the parties on November 18, 2009; as a result, Ionia was given the opportunity to submit a report on the subjects identified in the November 11, 2009, letter; the government was given the opportunity to review Ionia's report, then state it's position on whether a hearing would be necessary. Ionia submitted it's report on December 15, 2009¹; the government responded on December 23, 2009². In addition, the Independent Environmental Consultant ("IEC") submitted a report of a visit to Ionia's Pireaus office, dated December 28, 2009 in which the issue of the performance of the SWOMS was addressed with Ionia's management³. Ionia submitted a "Follow-up Report," dated January 15, 2010, addressing the issues raised in the Government's response and the IEC's report⁴.

Based on Ionia's submissions, the government's response and the IEC's report, I determined that a formal, in-person hearing would not be necessary to provide the Court with an adequate report of findings and recommendations during this hearing cycle. However, in order to, ensure the availability of adequate information, I convened a telephonic hearing among the

_

¹ Ionia's report is attached as Exhibit 1

² The Government's response is attached as Exhibit 2

³ The IEC's report is attached as Exhibit 3

⁴Ionia's Follow-up Report is attached as Exhibit 4

parties, the United States Probation Officer Norton, the IEC and the ICC on January 20, 2010, which was recorded and transcribed by a court reporter⁵.

II. January 20, 2010 Telephonic Hearing

A. Summary of Proceedings and Evidence

At the telephonic hearing held on January 20, 2010, the United States was represented by Lana Pettus, U.S. Department of Justice, Environmental and Natural Resources Division, Environmental Crime Section. Ionia was represented by Michael Chalos and George Kontakis. Also attending the hearing by telephone were: United States Probation Officer Patrick Norton; United States Coast Guard Lieutenant Commanders John Cashman and Shannon Burgess; Ken Olson, United States Coast Guard Headquarters; IEC Captain Richard Wigger and Independent Corporate Consultant ("ICC") James Sandborn. Speaking for Ionia were Krystyna Tsochlas, Ionia's Safety and Quality Manager, Environmental Management Representative and Designated Person Ashore, and Georgios Karagiorgis, Ionia's Technical Manager and Corporate Compliance Manager.

Evidence presented at the hearing consisted principally of the testimony of Ms. Tsochlas with additional comments by IEC Captain Wigger. Ms. Tsochlas's comments were concentrated on four areas a particular interest: the operation of the SWOMS, including electronic data transmission, operational problems, and comparison of SWOMS data to the oil record book; the usefulness of the Fleet Oil Engineering Survey; an update on implementation of the Environmental Management System ("EMS"); and an update on Ionia's training program.

Because the hearing was conducted over the telephone, comments of the participants were not taken under oath. However, Ionia representatives were reminded that any

_

⁵ The transcript of the January 20, 2010, hearing is attached as Exhibit 5

material misstatements would constitute separate violations of 18 U.S.C. § 1001. Ms. Tsochlas discussed the above areas of particular interest, and responded to questions put to her by Ms. Pettus, Lieutenant Commander Cashman, and Burgess and ICC James Sandborn. IEC Captain Wiggar also inquired of Ms. Tsochlas and, in addition, provided his own observations on the operations and capabilities of the SWOMS.

B. Findings

Based on the testimony and comments at the hearing, the documents presented and the reports of the IEC and ICC, I make the following findings by a preponderance of the evidence:

1. General

- a. Krystyna Tsochlas continues to serve as Ionia's Safety and Quality Manager, Environmental Management Representative and Designated Person Ashore. She has been directly and substantially involved in Ionia's efforts to comply with the terms of probation and the requirements of the Special Master Order. She reports directly to Ionia's Managing Director.
- b. Georgios Karagiorgis continues to serve as head of Ionia's Technical Management Department and as Corporate Compliance Monitor. Mr. Karagiogis is familiar with the duties required of the CCM under the Special Master Order and has been directly and substantially involved in carrying out Ionia's efforts to comply with the terms of probation and the requirements of the Special Master Order.
- c. No ships managed by Ionia called on U.S. ports during 2009, nor to date in 2010. There are currently no plans for an Ionia vessel to call on a U.S. port. Prior to the Special Master second hearing, Ionia requested that the covered vessels be

permitted to call at U.S. ports, and the Special Master so recommended. I find that recommendation is still appropriate.

d. Since the Special Master's hearing in July, 2009, Ionia has submitted records relevant to waste oil generation and management and processing aboard the M/T FIDIAS and M/T THEO T ("the covered vessels") on a monthly basis. The records have been submitted within 40 days of end of the month the records were generated. Given the trading schedule of the vessels and the necessity of transmitting many of the records by post from ports of call the time for transmission to the required recipients has been reasonable. Moreover, the IEC and ICC have communicated with Ionia Management periodically on topics relating to progress on implementing the SWOMS, training issue and document production.

2. The Special Waste Oil Monitoring System (SWOMS)

- a. A SWOMS, including the electronic data transmission feature was installed on the covered vessels before the second Special Master's second hearing in July 2009. The SWOMS continues to function onboard both vessels as reported in the Special Master's Second Report.
- b. The SWOMS is currently operating on, the Covered Vessels in compliance with the requirements contained in the Special Master Order, Section IV.b., with the following exceptions:
 - i. The sensor in the bilge holding tank of the M/T FIDIAS is currently not functioning. As the vessel had been trading in West Africa, Ashland Marine technicians were not able to attend the vessel in order to resolve the issue until the vessel called at Piraeus, Greece, in November 2009. However, a failure

of the Ashland technicians' equipment made it impossible to fix the problem. The vessel has returned to West Africa where it will remain for an indefinite time.

Due to the sensor's malfunction Ionia's technical superintendent assigned to the

vessel was unable to utilize the SWOMS data that is transmitted for that specific

tank only. In order to verify the accuracy of the entries that are made in the oil

record book relevant to the bilge holding tank, the remaining data that is

submitted by the vessel is reviewed and all necessary calculations are made by the

technical superintendent, who determines whether there are irregularities in the

data that is completed by the vessel.

ii. Both the Covered Vessels have encountered problems with

the accuracy of the SWOMS soundings in the incinerator waste oil tank. Due to

the small dimensions (approximately 1.5 cubic meters) of the tank and the

frequent operations that are carried out, such as transfers, draining and

evaporation, the SWOMS is not able to accurately record the level of waste. Ionia

is working with the manufacturer of the SWOMS, Vigilant Marine Systems, in an

attempt to find a solution.

iii. SWOMS, as currently configured transmits electronic data

daily from both vessels at 0000 (GMT). The volumes of the bilge water and oily

residue tanks at the time of the transmission, as well as the maximum and

minimum volumes for the previous 24 hours are included in the report. At the

end of the month, hard copies of the oil record book, tank sounding log and alarm

log are sent to Ionia's office in Pireaus. Upon receipt the vessel's superintendent

carries out a review of the data and compares the records for anomalies. The tank

volume data received at the end of the month is compared to the daily SWOMS report to ensure the values are within the maximum and minimum volumes for the day. The volumes recorded by the SWOMS at the time of the transmission and the daily volumes recorded in the sounding log are also compared in a bar graph format. Data for the graphs is entered manually in an Excel spreadsheet by the superintendents. Since the soundings onboard are usually taken at 0800 (local time) versus the SWOMS sounding at 0000 (GMT), the values seldom completely coincide. The IEC believes, and I concur, that the requirement in the Special Master Order Scope of Work ("Scope of Work") to "electronically monitor and record all waste oil generation and processing in the engine room, in a tamperproof and automatic manner", appears to be met by the installed systems. However, the Scope of Work also requires that the data "be electronically recorded by the SWOMS at least hourly". While the SWOMS electronically records tank soundings each hour, it transmits data to the Ionia home office only once each day at 0000 (GMT). The data transmitted each day consists only of: 1) the minimum and maximum tank level sounding during the previous 24 hours; 2) the tank level soundings at the time of transmission; 3) times of operation of the oil water separator and the oil content meter; 4) the and times of operation of the incinerator. Thus, it is theoretically possible, although admittedly quite difficult, for a seafarer to illegally pump fluids containing waste oils overboard by pumping from a certain tank containing oil waste, then refilling the tank to the previous level with seawater, all without an anomalous reading in the data electronically provided to Ionia's shore side offices. Ionia is in discussions with Vigilant Marine Systems to modify the software in order that hourly tank soundings are transmitted along with the daily transmission to Ionia's shore side offices at 0000 (GMT).

iv. Ionia reports it has incurred costs of \$142,021.00 as of December, 2009, in installing, calibrating and maintaining the SWOMS. See Exhibit 1, Ionia Report, at 22.

3. <u>Fleet Engineering Survey.</u>

Pursuant to attachment B of the Special Master Order, Ionia was required to conduct a fleet engineering survey which would request information from shipboard engineers to help identify deficiencies and suggest potential improvements to Ionia's vessels' waste management systems. At the Special Master's second hearing, and in response to Ionia's December 14, 2009 report, the Government raised a concern about the adequacy of the questions contained in the fleet wide engineering survey, specifically, many reported responses were inapposite to the issues raised.

Ionia responded that it had reviewed the responses to its fleet engineering survey and had determined that some of the English language terms were not properly understood by the survey respondents. Ionia consulted with the IEC in attempt to revise problematic fleet engineering questions. Ionia has changed the wording of one question and is consulting with the IEC on another problematic question. The original questions track the language in attachment B of the Special Master's Order, so Ionia cannot be faulted for using that language. However, with suggestions from Government representatives, Ionia is now attempting to revise the fleet engineering survey in order that more useful information can be obtained.

4. Training

Ionia is implementing a revised training program consisting of: (1) prejoining assessment and training; and (2) onboard training.

a. <u>Pre-joining assessment and training.</u> Pre-joining assessment training consists of a computer-based competency assessment designed to test a candidate's knowledge as per the IMO Standards of Training Certification and Watchkeeping ("STCW"). The STCW competency assessment software includes MARPOL and flag state administration requirements. The competency assessment software additionally allows Ionia to build its own company specific questions to assess a candidate's knowledge in areas identified or particularly important to Ionia. Ionia is in the process of developing questions to supplement the competency assessment software. Ionia uses the results of the competency assessment to determine areas in which a candidate needs specific, additional training to ensure competency in the STCW requirements, as well as its own company specific requirements.

Before joining a vessel, all seafarers participate in a ten day pre-joining familiarization and training program. The program includes elements specific to environmental awareness, waste oil management, MARPOL and the shipboard environmental management system.

In July 2009, a course was carried out at the manning agent in the Philippines entitled "Shipboard Environmental Management System" by Exact, a well known training organization in the Philippines. Twenty-five seafarers attended the training in addition to the company's crew manager. Additionally, the manning agent's instructors were trained to carry out an in-house training course regarding environmental

management. The in-house training course is carried out once a month with all available

seafarers. In July 2009, Ionia's crew manager visited the manning agent in Manila. He

also inspected three training organizations used by Ionia for its external seafarer training,

Far East Maritime Foundation, Exact Training Center and Maritus Training Center, and

found them to be conducting training in line with Ionia's requirements. The crew

manager also carried out training of the manning agents instructors and then available

seafarers on Ionia's Environmental Management Plan. In response to concerns expressed

by the Government, concern, Ionia has revised that portion of its EMP training program

directed to the M/T KRITON incident, its cause and repercussions, to more fully explain

the potential criminal law repercussions to individual seafarers, as well as the company.

Ionia will make further revisions to emphasize those points.

b. <u>On-board training</u> Weekly training sessions are carried out on

Ionia vessels in accordance with the training program issued by the company annually.

The training program requires that issues related to the environment are addressed during

the weekly training session at least once a month. Each managed vessel is provided with

publications and DVDs to assist with the training. Additionally, Ionia has purchased

computer-based training units that provide interactive training on one basis. Computer-

based training units have been purchased from Videotel and have been supplied to the

fleet, the company and the manning agents. The units have been installed at the company

premises and at the manning agent's facilities. Computer-based training units have been

installed onboard both covered vessels. However, full instruction of all seafarers on the

M/T THEO T on the use of computer-based training has not yet occurred due to the

SPECIAL MASTER'S THIRD REPORT PAGE -10-

United States of America vs. Ionia Management S.A. Criminal No. 3:07 CR 134 (JBA)

 $4842\text{-}2510\text{-}0805 \backslash 1 \backslash 484793 \backslash 00001$

vessel's trading pattern. Records of all computer-based training sessions are maintained by Ionia for each seafarer.

In an effort to establish the extent to which ship board personnel find a computer-based training unit useful, Ionia distributed a questionnaire throughout the fleet. The feedback obtained indicates the shipboard personnel find the training sessions on the units informative and interesting. Ionia superintendents that have attended vessels have found that ship board personnel are enthusiastic about the installation of the computer based training units onboard.

Ionia advises its cost to date in preparing and implementing its training program amount to approximately \$50,000.

C. Status of EMP Implementation

Ionia placed the environmental management plan into effect on July 1, 2009. Onboard implementation has been done on a vessel-by-vessel basis in order to carry out onboard training prior to implementing the EMP. Training has been carried out on three of Ionia's six vessels. Onboard training is yet to be carried out on three of the vessels, the M/T ESTIA, the M/T KRITON, and the M/T THEO T. The trading patterns of the vessels have made it difficult for shore side senior management to perform the training as contemplated. However, senior officers have been given specific training at Ionia's shore side offices in order to implement the EMP on the vessels and train the seafarers. In addition, as the vessels' trading schedule permits, shore side management will conduct additional training on implementation of the EMP.

The EMP provides that upon six months' implementation of the plan on board each vessel, an internal audit is to be carried out by a company representative to ensure the plan is being properly implemented and evaluate its effectiveness. In addition, whenever a company

representative attends a vessel, he or she is requested to verify that the plan's requirements are in place and are being adhered to and followed by the crew.

Unscheduled internal audits have been carried on out the M/T GEA and the M/T FIDIAS, and an environmental internal audit was carried out on the M/T FIDIAS on November 16, 2009. Ionia reports the results of the audit indicate the shipboard personnel are familiar with the requirements of the EMP, the company's policies and posters as required by the EMP have been posted appropriately, and operational controls have been implemented. However, weaknesses were identified as to the completion of documentation related to the training and familiarization of shipboard personnel. See Exhibit 1, Ionia Report, Appendix 7. Ionia reports the weaknesses identified have been addressed and continue to be monitored.

D. Pollution Incident, 17 September 2009 at Antwerp

While the M/T KRITON was receiving bunkers on 17 September 2009, the third officer observed oil in the dock water on the starboard side of the vessel. The alarm was immediately sounded, bunkering operations terminated, and the oil pollution response team activated. The master notified the company's operations department and the vessel's agents. The local authorities were notified immediately as well as the vessel's flag administration and the vessel's classification society. It was determined that the fuel oil was leaking from the oil discharge monitoring equipment (ODME), overboard discharge pipe that passes through the vessel's fuel oil tank. Port State Control officers boarded the vessel in order to carry out an investigation of the incident and the vessel was consequently detained until the cause of the pollution was verified and eliminated. The vessel was released following the repair of the ODME discharge pipe to the satisfaction of the vessel's classification society on 24 September

2009. As a result of the pollution incident, a fine of €1,000 was imposed by the Port State Control authorities in Antwerp, which has been paid in full by Ionia.

Ionia's technical manager, George Karagiogis was appointed to carry out the on site investigation. The incident investigation clarified that the ODME discharge pipe that passes through the vessel's starboard fuel oil tank became holed. As the vessel was carrying out bunkering operations, the level of the fuel oil reached the location of the hole and passed through the hole into the ODME discharge pipe and then into the dock water.

Corrective actions immediately taken by the company include: (1) the spilled oil was cleaned up; (2) the fuel tank was emptied of fuel oil and cleaned to hot work standards; and (3) the entire line of the ODME discharge pipe that passes through the fuel tank was replaced. Other preventive actions taken by the company included: (1) instructions were given requiring thorough inspection of the port fuel tank for evidence of similar problems; (2) the technical manager was required to carry out a study of the company's fleet to identify whether any similar arrangements exist on any other vessels; similar arrangements are considered to be those that allow for direct interface between the fuel oil/cargo oil system and the sea; (3) the technical manager was required to provide proposed inspection and maintenance schedule for all fuel oil/cargo, oil system and sea interfaces; and (4) the technical manager is required to provide a risk assessment prior to a vessel's dry docking in order for this procedure to be considered to be incorporated into the company's safety management system. See Exhibit 1, Ionia Report Appendix III.

The facts and circumstances of the Antwerp pollution incident do not indicate a failure of Ionia's environmental management. Ionia's response to the incident was appropriate and consistent with high industry standards. The root cause of the spill, a hole in the ODME

discharge pipe, is a failure endemic to the design of most modern tank vessels. Ionia has taken steps to assure inspection of the ODME line, and other similar fuel oil-sea interfaces at appropriate intervals and dry dock.

E. Ongoing Vessel Audits

The IEC will be conducting an onboard audit of the M/T THEO T during her voyage from Singapore to Tanjung Pelepas during the period 19 February to 22 February 2010. The IEC and Ionia will make their best efforts to conduct an onboard audit of the M/T FIDIAS, but she is currently laying at anchor in West Africa and access to the vessel for purposes of an ongoing audit is problematic.

III. Conclusions

- 1. Ionia continues to make progress in compiling equipment and instituting procedures to achieve a high level of compliance with United States and international industry environmental standards. Ionia's environmental management representative and its corporate compliance manager both demonstrate well considered, systematic approaches to assure high standards of environmental accountability.
- 2. Ionia has installed a SWOMS in substantial compliance with the requirements of the terms and conditions of its probation and the Special Master Order.
- 3. Ionia has instituted an Environmental Management Plan pursuant to the recommendations of the IEC. Ionia has demonstrated a commitment to implementation of the EMP and training of shore side and seagoing personnel in its operation.
- 4. Ionia has established a comprehensive training program. A full training program, including computer-based training, is near full implementation and is expected to be fully implemented within the ensuing months.

5. Ionia has submitted its shipboard records as required in paragraph IV(a) of the

Special Master's Order.

IV. Recommendations

1. Ionia should provide periodic updates, at least every sixty days, to the IEC on its

progress on fully implementing the SWOMS, including repair of the bilge holding tank sensors

on the M/T FIDIAS and software adjustments that will allow daily reporting of hourly tank

soundings.

2. Ionia should continue to work the IEC in refining its fleet engineering survey.

3. Ionia should report to the ICC and IEC when its EMC training program has been

fully implemented.

4. Ionia should continue to conduct internal audits as specified in its Environmental

Management Plan and to address promptly any weakness or nonconformities identified in the

course of the audits.

5. A formal in person hearing should be held in New Haven, Connecticut during the

first week of June, 2010.

Respectfully submitted this 22nd day of February, 2010.

/s/ Robert C. Bundy

Robert C. Bundy, Special Master

SERVICE LIST

(a) U.S. Attorney's OfficeDistrict of Connecticut915 Lafayette Blvd, Room 309Bridgeport, CT 06604

ATTN: Mr. William Brown, Esq.

(203) 696-3022 - phone (203) 579-5575 - fax

Email: william.m.brown@usdoj.gov

(b) U.S. Department of Justice Environmental Crimes Section 601 "D" Street, NW Washington, D.C. 20004

ATTN: Ms. Lana Pettus

(202) 305-0403 (202) 305-0397 (fax)

Email: <u>lana.pettus@usdoj.gov</u>

(c) U.S. Coast Guard
Commandant (CG-543)
Office of Vessel Activities
Foreign Vessel/Offshore Activities Div.
2100 Second St., S.W.
Washington, D.C. 20593-0001
Attn: LT Chaning D. Burgess

Email: Chaning.D.Burgess@uscg.mil

(d) U.S. Probation Department
District of Connecticut
157 Church Street, 22nd Floor
New Haven, CT 06510

Attn: Mr. Patrick Norton

Email: Patrick_Norton@ctp.uscourts.gov

(e) Ionia Management S.A.12 Laskou StreetPiraeus, Greece 185 36

(f) Chalos, O'Connor & Duffy, LLP 366 Main Street Port Washington, NY 11050

Attn: Mr. Michael Chalos, Esq. Email: mchalos@codus-law.com