WEB SERVICES TO IMPROVE SHIP WASTE TRACEABILITY & QUALITY
Ship Waste Agency

Launched in 2010

Capitalizing on 15 years experience in IT development & ship waste management

The HQ is based in Paris and the dedicated R&D center is in Lille (France)

SWA is financially supported by private investors (out of the marine industry to preserve SWA’s ethical independence)

The annex of the Directive includes the notification of waste and residues, as defined by Article 6 of Directive 2000/59/EC on port reception facilities, as one of the reporting formalities resulting from legal acts of the Union which shall be received in an electronic format by each national SafeSeaNet system and be available to other Member States via the SafeSeaNet system, in accordance with Article 6 of Directive 2010/65/EU.

The Commission would kindly ask Member States participating in the eMS Group to nominate experts for a waste notification sub-group. The terms of reference of the sub-group are enclosed.

At the Commission level, DG MOVE/D.2 will have the responsibility for the work of the expert group. However for practical reasons EMSA will chair the meetings, hold the secretariat, and prepare the work programme of the group.

Therefore, Member States are invited to consider carefully the designation of the experts, in order to establish a balance between the port reception facility and the SafeSeaNet expertises in the sub-group.
Your waste management approach

- How often your vessels were delayed/blocked for waste problems due to document non-conformity?
- Are you able to measure the quantity of waste generated and your waste cost involved per year, per ship, per manpower?
- Where your waste will ends?
- If your waste collector is « clean» enough to minimize your pollution risks?
- How much time your operators spends on waste?

http://www.ship-waste.com
SHIP WASTE AGENCY: THE INNOVATIVE SOLUTION

- **Internet SAAS Platform** based on a **collaborative involvement** of **ALL** maritime **actors** to **speed up** communication & **exchange** of information.

- **Avoid companies** relying on **in-house development** with costs related to maintenance, **up-grades** and internal additional developments.

- Provide a **100% quality** and **traceability** all **around the world** on ship waste.

- Issuance of **Electronic documents** in **conformity** with **Marpol Annexes** I,II,III, IV,V,VI.

- **Easy overview**, per port, on all relevant PRF’s information (tools, schedule, price,..).

- **Validation process** on Waste Delivery Receipt (e-WDR) **by all** involved operators.

http://www.ship-waste.com

Green Tech 2012

30/05/2012
SWANET: the world collaborative platform

- SHIP
- Waste Collector
- Ship Agent
- Treatment Center
- Ship Manager
- Swashore
- Local Authority
- Port Authority
- CLT
- PORT
- Swaboard

http://www.ship-waste.com

Green Tech 2012

30/05/2012
SWANET PLATFORM : 2 modules

**SWABOARD**
(Application)

**SWASHORE**
(Website)

Waste Data Flow

http://www.ship-waste.com
SWANET: Document Workflow (ANF-WUR-SWDR)

Vessel → SWABOARD

Ship Agent

e-WUR → Collector → e-WDR → e-ANF → SWASHORE

SHIP MANAGER – PSC – SHIP OWNER

http://www.ship-waste.com

Green Tech 2012

30/05/2012
Advance Notification Form (ANF)
Current practices compared to SWA

http://www.ship-waste.com

Green Tech 2012 30/05/2012
Waste Delivery Receipt (WDR): Current practices compared to SWA solution

http://www.ship-waste.com
WUR : WASTE UNLOADING REQUEST

- **Availability** to create a WUR including exact waste specification to be unloaded on technical & relevant data
- **Choice of vacant & competent collectors** in the SWA database and launch request for proposal for unload possibility and capacity

- **Next coming on SWA platform: ONLINE BID**
Validations of WDR

Onboard waste Management Tool (OWMT)

Quantity incinerated
OK

Quantity at sea
OK

Quantity treated
OK

Total report
OK

(day to day)

Validations of SWDR

Onboard waste Management Tool (OWMT)

Online Access

All vessels within port

per vessel or managed fleet

All vessels operated

DEDICATED TOOL + on demand report: daily, weekly, monthly, ...

http://www.ship-waste.com

Green Tech 2012

30/05/2012
Listing of available collectors: logistics, know-how, pricing, schedule,…

Quality Ranking Display of PRF’s
- In accordance with operational quality and transparency on collected waste
- Including dedicated Treatment Centers partners for iso 14001
Detailed data of waste production and costs at your disposal (by fleet, by vessel, by port…) on daily, weekly, monthly or yearly base

- Control the waste quantities
- Analyse the waste quantities
- Compare the waste costs

➢ Manage your waste budget!

➢ Reduce your costs!
Cost optimization on ship waste management
Compliance with all international regulation
Risk minimisation on liability
Traceability on generated waste
Valorisation of your environmental image
Improvements of call schedules
MAJOR BENEFITS : WWW.SHIP-WASTE.COM

- Minimizing vessel control on waste matters (PSC & Vetting companies)
- Reducing in this way call delays and costs
- Spending less time on documents and Waste flow operations
- Optimizing waste unloading process
- Fast database access for choice of operators (ship agents, collectors, …)
- Reliability and Eco-responsibility, thanks to waste traceability up to Treatment Centres
- Analyzing waste production and costs
BE A PART OF THE NEW COLLABORATIVE PLATFORM!

Join the Club First* before 31st June 2012 to display your company’s eco-responsibility and get dedicated advantages to first movers.

* From 25 to 50% discount on 2 years subscription

http://www.ship-waste.com
http://www.ship-waste.com

PILOT OVERVIEW
Welcome sperrier@ship-waste.com! [ Log Off ]

About us | Master Account | SWA Partner | They support us | My Account

Contact Book
Start an ANF
Start a WUR
Onboard Waste Management Tool
Running Operation
Dash Board
Users Management
Fleet Management
Right To Operation Management
History

SEARCH A CONTACT

Name: [Field]
Function: [Select Function]
Society: [Field]
Business Area: [Select Business Area]
E-Mail: [Field]
Phone: [Field]

Only my Contacts: [Checkbox]

Search

No Result

Contact List
SHIP TECHNICAL DATA:

http://www.ship-waste.com
ONBOARD WASTE MANAGEMENT TOOL (OWMT)

http://www.ship-waste.com
### RUNNING OPERATIONS

#### EXTERNAL USER

Enter Your Guest Reference: [Input Field]

#### My ANF

Show [Dropdown] entries

<table>
<thead>
<tr>
<th>Company</th>
<th>Ship</th>
<th>POC</th>
<th>Date and Time of Emission</th>
<th>ETA</th>
<th>Status</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ship Waste Agency</td>
<td>Samco Europe</td>
<td></td>
<td>2012-02-28 14:42</td>
<td></td>
<td>Incomplete</td>
<td></td>
</tr>
<tr>
<td>Ship Waste Agency</td>
<td>Sidsel Knutsen</td>
<td></td>
<td>2012-02-28 18:30</td>
<td></td>
<td>Incomplete</td>
<td></td>
</tr>
<tr>
<td>Ship Waste Agency</td>
<td>M/V HARDANGER</td>
<td>Port of Antwerp</td>
<td>2012-01-10 21:37</td>
<td>2012-01-14 00:00</td>
<td>Printed</td>
<td></td>
</tr>
</tbody>
</table>

Legend: ETA: Estimated Time of Arrival  POC: Port Of Call

---

http://www.ship-waste.com  Green Tech 2012  30/05/2012
Development of the Platform

Phase 1 : April 2012

*Users*: Ship – Ship Manager – Ship Agent + few Port Authority *(interface)*

⇒ Embarked solution + Ashore platform
⇒ Document dematerialization (ANF - WUR - WDR)
⇒ On-board Waste Management Tool (OWMT)

Phase 2 : September 2012

*Add Users*: PRF - Local Authorities - Port Authorities

⇒ Fully Collaborative Action / Validation of WDR (quality label)
⇒ **ONLINE-BID**

Phase 3 : January 2013

*Add Users*: Treatment Centre

⇒ Traceability of waste up to final plant (ISO 14001)
⇒ Quality ranking of PRFs

http://www.ship-waste.com
THANK YOU FOR YOUR ATTENTION!
Annex
<table>
<thead>
<tr>
<th>REPORT 2011</th>
<th>DAILY</th>
<th>WEEKLY</th>
<th>MONTHLY</th>
<th>YEARLY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FLEET</strong></td>
<td><strong>GREEN SHIP</strong></td>
<td><strong>BLUE SHIP</strong></td>
<td><strong>YELLOW SHIP</strong></td>
<td><strong>RED SHIP</strong></td>
</tr>
<tr>
<td><strong>EXPENSES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DELIVERY COST ($)</td>
<td>15 500</td>
<td>46 670</td>
<td>14 304</td>
<td>12 000</td>
</tr>
<tr>
<td>BUDGETED COST (K$)</td>
<td>15/20</td>
<td>20/25</td>
<td>10/15</td>
<td>15/20</td>
</tr>
<tr>
<td>BALANCE COST</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>QUANTITIES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LAND ASHORE (M3)</td>
<td>230</td>
<td>1500</td>
<td>320</td>
<td>350</td>
</tr>
<tr>
<td>INCINERATED (M3)</td>
<td>320</td>
<td>730</td>
<td>140</td>
<td>960</td>
</tr>
<tr>
<td>AT SEA (M3)</td>
<td>230</td>
<td>515</td>
<td>812</td>
<td>290</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>780</td>
<td>2 745</td>
<td>1272</td>
<td>1 600</td>
</tr>
<tr>
<td>GENERATED VOLUME</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COST PER M3 $ (landed)</td>
<td>67,39</td>
<td>31,11</td>
<td>44,70</td>
<td>34,28</td>
</tr>
</tbody>
</table>

**Return**
## ANNUAL SOLID WASTE REPORT

### FLEET SOLID WASTE PRODUCTION 2011

<table>
<thead>
<tr>
<th>quantity (M3)</th>
<th>GREEN SHIP</th>
<th>BLUE SHIP</th>
<th>WHITE SHIP</th>
<th>YELLOW SHIP</th>
<th>PURPLE SHIP</th>
<th>MV BLACK</th>
<th>MV ORANGE</th>
<th>SHIP BROWN</th>
<th>MV SILVER</th>
<th>PINK SHIP</th>
<th>GREY SHIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plastic Subtotal: M3</td>
<td>37</td>
<td>14</td>
<td>30</td>
<td>18</td>
<td>18</td>
<td>16</td>
<td>26</td>
<td>9</td>
<td>14</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>Floating dunnage Subtotal: M3</td>
<td>14</td>
<td>1</td>
<td>4</td>
<td>12</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>10</td>
<td>13</td>
<td>4</td>
</tr>
<tr>
<td>Ground-down paper products, rags, glass, metal, bottles, crockery, etc</td>
<td>57</td>
<td>75</td>
<td>186</td>
<td>98</td>
<td>116</td>
<td>96</td>
<td>144</td>
<td>84</td>
<td>80</td>
<td>66</td>
<td>75</td>
</tr>
<tr>
<td>Paper products, rags, glass, metal, bottles, crockery, etc: Subtotal M3</td>
<td>94</td>
<td>85</td>
<td>206</td>
<td>111</td>
<td>137</td>
<td>115</td>
<td>166</td>
<td>98</td>
<td>93</td>
<td>125</td>
<td>110</td>
</tr>
<tr>
<td>Food Waste Subtotal: M3</td>
<td>15</td>
<td>9</td>
<td>25</td>
<td>11</td>
<td>12</td>
<td>18</td>
<td>22</td>
<td>10</td>
<td>20</td>
<td>44</td>
<td>17</td>
</tr>
<tr>
<td>Incinerator ash Subtotal: M3</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>


30/05/2012
ANNUAL LIQUID WASTE REPORT

FLEET LIQUID WASTE PRODUCTION 2011

QUANTITY (TON)

<table>
<thead>
<tr>
<th>QUANTITY (TON)</th>
<th>GRE EN SHIP</th>
<th>BLU E SHIP</th>
<th>WHIT E SHIP</th>
<th>YELL OW SHIP</th>
<th>PURPLE SHIP</th>
<th>MV BLACK</th>
<th>MV ORA NGE</th>
<th>SHIP BRA WN</th>
<th>MV SILV ER</th>
<th>PINK SHIP</th>
<th>GRE Y SHIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total sludge: M3</td>
<td>14</td>
<td>17</td>
<td>32</td>
<td>16</td>
<td>13</td>
<td>22</td>
<td>15</td>
<td>22</td>
<td>23</td>
<td>21</td>
<td>20</td>
</tr>
<tr>
<td>Total bilge water: M3</td>
<td>54</td>
<td>75</td>
<td>96</td>
<td>49</td>
<td>46</td>
<td>39</td>
<td>48</td>
<td>73</td>
<td>34</td>
<td>44</td>
<td>72</td>
</tr>
<tr>
<td>Total black and gray water: M3</td>
<td>5613</td>
<td>5490</td>
<td>8338</td>
<td>5591</td>
<td>6731</td>
<td>5820</td>
<td>6375</td>
<td>6490</td>
<td>6582</td>
<td>5627</td>
<td>6251</td>
</tr>
</tbody>
</table>

http://www.ship-waste.com

Green Tech 2012

Return
List of Included Database:

- World Ports & Terminals
- Marpol: Annex & Category
- 20 000 waste components
**e-Form: Advance Notification Form for waste delivery (ANF)**

**Notification of the delivery of waste to Port of Haifa**

The master of a ship shall forward the information below to the designated authority at least 24 hours in advance or arrival or upon departure of the previous port if the voyage is less than 24 hours.

This form shall be returned on board the vessel along with all the required documents.

**DELIVERY FROM SHIPS (ANF)**

1. **SHIP PARTICULARS**
   - **Name of ship**: ZM ALABAMA
   - **Owner/Operator**: [Surname]
   - **IMO Number**: [IMO Number]
   - **Distillation number of letters**: [Distillation number of letters]
   - **Ordnance Tonnage**: [Ordnance Tonnage]
   - **Type of Ship**: [Type of Ship]

2. **PORT AND VOYAGE PARTICULARS**
   - **Port of Call**: [Port of Call]
   - **Location**: [Location]
   - **Date and Time**: [Date and Time]
   - **Date of Last Delivery**: [Date of Last Delivery]
   - **Date and Time of Last Delivery**: [Date and Time of Last Delivery]
   - **Next Port and Country of Port**: [Next Port and Country of Port]
   - **Next Port of Delivery (if known)**: [Next Port of Delivery (if known)]
   - **Person submitting this form (if other than the master)**: [Person submitting this form]

3. **TYPE AND AMOUNT OF WASTE FOR DISCHARGE TO FACILITY**

<table>
<thead>
<tr>
<th>City Waste - MarpolAnnex 1</th>
<th>Quantity (ton)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry refuse</td>
<td>11.3</td>
</tr>
<tr>
<td>Dry waste</td>
<td>34.2</td>
</tr>
<tr>
<td>Oil tank washing</td>
<td>0.2</td>
</tr>
<tr>
<td>Other City Product</td>
<td>0.1</td>
</tr>
</tbody>
</table>

**Globally Agreed Substances (GAS)**

- **Globally Agreed Substances (GAS)**
- **Globally Agreed Substances (GAS)**

**MOONWAX**

- **MOONWAX**
- **MOONWAX**

**OTHER ANNEXES**

- **OTHER ANNEXES**
- **OTHER ANNEXES**

**PARTIAL LIST OF SUBSTANCES**

- **PARTIAL LIST OF SUBSTANCES**
- **PARTIAL LIST OF SUBSTANCES**

**CERTIFICATE OF DISCHARGE**

- **CERTIFICATE OF DISCHARGE**
- **CERTIFICATE OF DISCHARGE**

**SIGNATURE**

**Name and Position**: [Name and Position]

**Date**: [Date]

**Time**: [Time]

**Signature**: [Signature]
e-Doc: Waste Unloading Request for waste delivery (WUR)

Waste Tank Manifold Location: Back
Vacuum System: NO
Waste Pipe flange connection: DN50 - 1 1/8
Flange Type: MARPOL

Actual pump flow rate:
- FIRE AND BILGE PUMP: 80 M3/Hr
- OILY BILGE PUMP: 10 M3/Hr
- SLUDGE PUMP: 18 M3/Hr

Manufacturer Capacity: Actual Flow
- FIRE AND BILGE PUMP: 80 M3/Hr - 10.00%
- OILY BILGE PUMP: 10 M3/Hr - 20.00%
- SLUDGE PUMP: 18 M3/Hr - 20.00%

Height:
- FIRE AND BILGE PUMP: 16 m
- OILY BILGE PUMP: 12 m
- SLUDGE PUMP: 12 m

Oily Waste - Marpol/Annex 1

<table>
<thead>
<tr>
<th>MARPOL WASTE CATEGORY</th>
<th>Components</th>
<th>% content</th>
<th>Quantity (M3)</th>
<th>Quantity Kg</th>
<th>T* Disposal (°C)</th>
<th>Flash Point (°C)</th>
<th>Aspect</th>
<th>Packing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oily bilge water</td>
<td>Water (from Annex 1)</td>
<td>80%</td>
<td>11.2</td>
<td></td>
<td>Ambient</td>
<td>Higher than 55 °C</td>
<td>Liquid</td>
<td>Mixed of Several Product</td>
</tr>
<tr>
<td></td>
<td>Mixed Oil</td>
<td>20%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oily residues (sludge)</td>
<td>Water (from Annex 1)</td>
<td>30%</td>
<td>34.5</td>
<td></td>
<td>Between 20°C and 40°C</td>
<td>Between 9°C and 35°C</td>
<td>High Viscosity</td>
<td>Mixed of Several Product</td>
</tr>
<tr>
<td></td>
<td>Mixed Oil</td>
<td>70%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TOTAL QUANTITY TO BE DISCHARGED: 45.7
**e-Form: Ship Waste Delivery Receipt (SWDR)**

**RECEPTION FACILITY AND PORT PARTICULARS:**
- Reception Facility Provider: Benbali
- Treatment facility provider: Kapon
- Local Ship Agent: Rosenfeld
- Location Name: Port of Haifa
- Along Side At: 2012-05-20 11:00
- Begin Service: 2012-05-21 13:00
- End Service: 2012-05-21 17:00
- Leaving Side At: 2012-05-21 18:00
- Name Of Terminal: Quay 14

**TYPE AND AMOUNT OF WASTE RECEIVED**

<table>
<thead>
<tr>
<th>WASTE TYPE</th>
<th>COMPONENTS</th>
<th>MARPOL WASTE CATEGORY</th>
<th>SHIP WASTE CODE</th>
<th>QUANTITY (M³)</th>
<th>QUANTITY (Kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oily Waste - MarpolAnnex 1</td>
<td>Oily bilge water</td>
<td>Water (from Annex1)</td>
<td>P2742</td>
<td>11.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Oily residues (sludge)</td>
<td>Water (from Annex1)</td>
<td>P2752</td>
<td>34.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dirty ballast water</td>
<td>Mixed Oil</td>
<td>P2752</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Oily tank washings (A1c)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Garbage - MarpolAnnex 5**

<table>
<thead>
<tr>
<th>WASTE TYPE</th>
<th>COMPONENTS</th>
<th>MARPOL WASTE CATEGORY</th>
<th>SHIP WASTE CODE</th>
<th>QUANTITY (M³)</th>
<th>QUANTITY (Kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Cat.1) Plastic - No discharge at sea</td>
<td>Plastic (P)</td>
<td></td>
<td>P2783</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>(Cat.2) Floating dunnage, lining, or packing material</td>
<td>Glass</td>
<td></td>
<td>P2772</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>(Cat.3) Ground-down paper products, rags, glass, metal, bottles, etc</td>
<td>Paper products</td>
<td></td>
<td>P2770</td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td>(Cat.4) Cargo res., paper products, rags, glass, metal, bottles, etc</td>
<td>Food waste (P)</td>
<td></td>
<td>P2777</td>
<td>0.7</td>
<td></td>
</tr>
</tbody>
</table>

**SHIP PARTICULARS**
- Name of ship: ZIM ALABAMA
- IMO number: 9471229
- Gross tonnage: 49452.90
- Type of Ship: Container Ship

**Back**
THANK YOU FOR YOUR ATTENTION!

SHIP WASTE AGENCY
e-services for marine waste management

41, rue du Docteur Charcot - 92000 Nanterre - FRANCE
RCS NANTERRE/ Siret: 52509146800013 - TVA: FR 42525091468
Tel: +33 (0) 1 47 25 29 10 - Fax: +33 (0) 1 47 24 54 30
Website www.ship-waste.com
E-mail: info@ship-waste.com