Navigating the Complexities of Compliance

Ocean Guardian
Brief background on Total Marine Solutions

- **2000**: TMS Established by Alexandra Anastasiou to represent Marinflow AB in North America

- **2003**: Service offering expanded to Australia as TMS partners with Inter-Marine Pty

- **2004**: Culture of Compliance Shipboard Training established

- **2006**: TMS expands and moves into new Corporate Offices

- **2010**: Calibration (OCM) Center established

- **2013**: Strategic partnership developed with Brenock Technology

- **2015**: TMS selected as Exclusive Distributor for ORCA Food Digesters

- **2018**: TWG launches Ocean Guardian

- **2020**: Strategic Partnership NAVTOR and other APIs integrators
Description in brief

What does it do?

The basics – Integration of Environmental Rules, GIS Data, & Predictive Alerts

• Simple easy-to-use program for operators to access the latest environmental regulations based on the vessel’s current location
• Integrated environmental operations planning

Additional features:

• Ability for clients to digitize their environmental policies
• Audible alerts requiring User acknowledgements
• Relay outputs to equipment controls
• Complete audit trails of User interaction, updates and system actions
# Improving upon Best Practices

## Central America & Caribbean

<table>
<thead>
<tr>
<th>Country</th>
<th>untreated Black Water</th>
<th>Treated Black Water (MMP 2.0)</th>
<th>Unmitted Gray Water</th>
<th>Treated Gray Water</th>
<th>Food Waste</th>
<th>Ballast Water</th>
<th>Refuse Ponds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antigua</td>
<td>&gt; 12 NM = 6 Knots</td>
<td>&gt; 3 NM = 6 Knots</td>
<td>&gt; 3 NM = 6 Knots</td>
<td>&gt; 3 NM = 6 Knots</td>
<td>6 Knots</td>
<td>6 Knots</td>
<td>3 NM</td>
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<td></td>
<td></td>
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<tr>
<td>Aruba &amp; Barbados</td>
<td>&gt; 12 NM = 6 Knots</td>
<td>&gt; 3 NM = 6 Knots</td>
<td>&gt; 3 NM = 6 Knots</td>
<td>&gt; 3 NM = 6 Knots</td>
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<td>Barbados</td>
<td>&gt; 12 NM = 6 Knots</td>
<td>&gt; 3 NM = 6 Knots</td>
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<tr>
<td>Belize</td>
<td>Outside 12 NM of Belize Barrier Reef Complex or any island and claimed by the Government of Belize &amp; &lt; 16 hrs.</td>
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<tr>
<td>Bermuda</td>
<td>&gt; 12 NM = 6 Knots</td>
<td>&gt; 3 NM = 6 Knots</td>
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<td>&gt; 3 NM = 6 Knots</td>
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<tr>
<td>British Virgin Islands</td>
<td>&gt; 12 NM = 6 Knots</td>
<td>&gt; 3 NM = 6 Knots</td>
<td>&gt; 3 NM = 6 Knots</td>
<td>&gt; 3 NM = 6 Knots</td>
<td>6 Knots</td>
<td>6 Knots</td>
<td>3 NM</td>
</tr>
</tbody>
</table>

*Note: * Ballast Water is allowed at 6 knots. If ballasting is planned in local waters, conduct ballast water exchange whenever possible > 200 NM & < 1200m. If the ballast is not potable, then > 500 NM & < 2000m. If possible, IMO Ballast Water Convention.
The Ocean Guardian team digitizes environmental regulations and maintains this database on our web-based port.
### Rule Details - National

<table>
<thead>
<tr>
<th>Rule No</th>
<th>2144</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rule Name</strong></td>
<td>Bunkered ballast water discharge - Treated ballast water</td>
</tr>
<tr>
<td><strong>Rule Description</strong></td>
<td>Bunkered ballast water discharge - Treated ballast water</td>
</tr>
<tr>
<td><strong>Rule Status</strong></td>
<td>Deployed</td>
</tr>
<tr>
<td><strong>Detailed Category</strong></td>
<td>Bunkered water</td>
</tr>
<tr>
<td><strong>Simplified Category</strong></td>
<td>Bunkered water</td>
</tr>
<tr>
<td><strong>Valve</strong></td>
<td>Not associated with any valve</td>
</tr>
<tr>
<td><strong>Rule Active</strong></td>
<td></td>
</tr>
<tr>
<td><strong>This rule is applicable for</strong></td>
<td>CRUISE, TRANSIT</td>
</tr>
<tr>
<td><strong>Slips</strong></td>
<td>NA</td>
</tr>
<tr>
<td><strong>Flag State</strong></td>
<td>All</td>
</tr>
</tbody>
</table>

### Change Log
- **Friday, February 08, 2019 11:19:38 AM** - rulesets
- **Tuesday, March 26, 2019 2:12:06 PM** - rulesets
- **Monday, March 19, 2019 9:28:28 PM** - rulesets
- **Monday, August 28, 2017 12:32:43 PM** - rulesets

### Created
- 3/14/2017 7:40:30 PM
- Created By: Sanmar

### Updated
- 2/5/2019 10:17:54 AM
- Updated By: Rules

### Effective On
- 7/1/2013

### Vetted Date
- 9/29/2017 11:32:43 AM
- Vetted By: Stefano, Rules

### Comments

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The Ocean Guardian Database

3,860 Active and Deployed Rules
306 Countries and Territories With Rules
53 Special Areas, such as Marine Sanctuaries, ECAs, etc.
2,518 Ports With Rules Assigned

Rich with Features

- **Environmental Operations Planning**
  - Brings voyage planning and environmental operations together to simplify compliance and enhance workflow efficiencies.

- **Discharge Guidance**
  - The at-a-glance simplicity helps operators immediately understand what can and cannot be discharged.

- **Easy to Integrate**
  - Easily integrates with existing onboard systems and operations.

- **Configurable & Customizable**
  - User interface is easily configurable to meet company and operator needs.

- **Fleet Operations**
  - Fleet wide visibility in real-time, enhancing operations, workflow and capacity shore side and on the vessel.

- **Rules Portal**
  - Client accessible rules portal can be customized to include company or vessel specific guidance.
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