Third party vessels risk assessment – Repsol Vetting

INTERTANKO European Panel Meeting
Barcelona 29/30 April 2015
1. Main influencing bodies controlling Vessel’s Risk

2. Repsol Corporate Norm for Vessel Risk
   - Legal Framework
   - What is Repsol vetting?
   - What vetting does and what values promotes?

3. Repsol Vetting Process
Main Influencing Bodies controlling Vessel’s Risk

- Oil Majors Vetting
- PSC
- International & Industry Standards (IMO, OCIMF, SIGTTO, ICS, etc.)
- Flag
- Classification Society
- Owner Management
Main Influencing Bodies controlling Vessel’s Risk

Repsol hasn’t got own fleet, all the vessels used by the Group are chartered by service, spot or time.
Rentsol Corporate Norm for Vessels Risk Control

Legal Framework

462 Norm Managing safety and environment in sea and river operations and/or transport

Object:
To establish basic guidelines for managing safety and environment in sea/river operations and/or transport within the Repsol Group, to minimize risks that may affect the safety of people, facilities and the environment.

Rentsol Vetting:
Global technical unit responsible for establishing guidelines for the safety and environment assessment process for all vessel types operating in the Repsol system, monitoring compliance with applicable regulations and managing preliminary assessments and physical inspections of vessels when required.
Repsol Corporate Norm for Vessel Risk Control

What is Repsol vetting?

- Repsol Vetting Process
- Marine Safety Criteria

IT Systems

Values

People

- Process & Criteria

- Online database to request the commercial interest on a vessel, check the vetting status, main particulars, load of Vessel’s operability in Repsol Terminals
- Active system requires positive assessment
- Safety and Technical in house Department since 1993
- Objective is to determine whether an operational risk exists
- Inspections to ensure that all of the vital navigation, safety, firefighting, rescue, loading and unloading, mooring, main and auxiliary engine, etc. is well maintained.
- Assessment of Acceptability is done in Madrid not by the Inspector
- Expertise based system

- Transparency
- Integrity
- Responsibility
- Flexibility
- Innovation
- Analysis, evaluation and rating process applied to a ship or company before it is contracted
Repsol Corporate Norm for Vessel Risk Control

Repsol Vetting
PROCESS AND CRITERIA

www.vetting.repsol.com

Reference: T&E-PROC-001/2014
Applicable as of 01 Aug 2014
Updated 01 Jun 2014
Repsol Corporate Norm for Vessel Risk Control

Offshore Vessel Vetting Process

Object
This guide identifies the requirements and activities necessary to ensure safe and efficient Vessel Management. All vessels within the RVNG's fleet are required to refer to this guide. Compliance with the requirements stated in this guide is mandatory. All vessels managed by Repsol, both onshore and offshore, are required to refer to this guide. The guides provided are not intended to grant the vessel operator any rights or obligations to charter or employ the vessel, and does not mean the vessel is suitable for contracting.

Scope of Application
This Offshore Vessel Vetting Process applies to any vessels/vane, where the criteria particulars can be described in the Offshore Vessel Vetting Process and meet within the scope of Corporate Norm (CD-0042/NC). Managing safety and environment is a key requirement in selecting vessels and ensuring that the vessel fully complies with the applicable regulations.

Framework regulations (reference regulations)
- Managing safety and environment at this and other operations (and/or transport Norm (SO-0042/NC)).

Criterios de seguridad de vetting para embarcaciones fluviales

Objeto
El propósito de este documento es proporcionar a las operaciones de embarcaciones fluviales los requisitos ambientales y de seguridad y considerar los aspectos generales que deben ser considerados para el vetting. En el contexto de esta práctica, se deben seguir los procedimientos establecidos en la Norma de Vetting para Embarcaciones Fluviales. En el caso de que se elijan distintos criterios, se realizarán pruebas adicionales.

Ámbito de aplicación
Este criterio es aplicable a todas las embarcaciones propulsadas y no propulsadas según el tipo aplicable a la instalación de la Norma de Vetting para Embarcaciones Fluviales, que se utilizan en el transporte de cargas de energía y materiales, para la navegación de los ríos y lagos.

Normativa marco (normativa de referencia)
- Norma de "Gestión de seguridad y medio ambiente en operaciones y transporte por vía marítima y fluvial" (SO-0042/NC).
Repsol Corporate Norm for Vessel Risk Control

✓ Applies to:

✓ Vessels chartered by Repsol
✓ Vessels which call a Repsol Terminal
✓ Vessels with Repsol cargo on board

✓ Any person responsible of nominating a vessel before contracting it must ensure by checking the Vetting Data Base that the vessel is rated as Acceptable and therefore, it can be used.

✓ Any person responsible of a maritime or river terminal before allowing the vessel to enter into the installations, must ensure that the vessel is rated as Acceptable in the Data Base.
Repsol Corporate Norm for Vessel Risk Control
Repsol Corporate Norm for Vessel Risk Control

Transporte fluvial livianos
Repsol Corporate Norm for Vessel Risk Control

What is Repsol vetting?: People
Every Vetting inspector holds Master or Chief Engineer’s license with a wide experience in navigation.

They are all accredited by OCIMF SIRE 1 to perform SIRE inspections in the 3 categories OIL/Chemical/GAS.

They have attended the mandatory New Inspector course and passed OCIMF audit.

In order to maintain the accreditation they must perform a minimum number of inspections per year.

Every 3 years they must attend to a refreshment course and be re-audited.
Repsol Corporate Norm for Vessel Risk Control

What vetting does and what values promotes?

1. Safeguard safety of human life: Use of Inert Gas
2. Prevention of marine pollution: Use of double hull
3. Prevention of Damage to People and environmental impact: Examination of officer Experience, Oil Spill prevention, Condition Assessment Program (CAP)
4. Reputation: Key for Safeguards charterer’s reputation
5. Values: Transparency & Integrity, Flexibility & responsibility, Innovation
1. Safeguard safety of human life

Use of Inert Gas System

2012 M/T BUNGA ALPINIA. Explosion at Labuan, Malaysia, Loss of 5 persons

*Currently, IMO inverting requirements are applicable to oil tankers and chemical tankers of 20000 tons of DWT and above.

2014-IBC Code, SOLAS and FSS Code have been amended to lower the application of the limit to 8000 dwt for the oil and chemical tankers constructed on after 01 January 2016.

Repsol keeps on being ahead of IMO Legislation: From 01.01.09 all the vessels, independently of age and size*, carrying volatile products for Repsol, products with flash points of 60 degrees Celsius or less, must use the inert gas system previous the loading, during transport and discharge.
2. Prevention of Marine Pollution

Use of double hull

MARPOL bans the carriage of Heavy Grade Oils in single-hull tankers of 600 tons DWT and above but Flags can allow their use in their coastal and internal waters. REPSOL bans it in all the waters where it operates.

1st January 2009: Repsol goes beyond IMO Regulations and commits the use of double hull vessels for the transport of any type of crude oil and the storage of crude and all type of oil products regardless of whether they are considered heavy or not.

REPSOL VETTING PROCESS AND CRITERIA

Hull design
1. Vessels carrying crude oil must always be double hull.
2. Vessels used as floating storage must be double hull.

POLLUTION PREVENTION

a) A cargo pump room bilge high-level alarm, with at least two sensors (dual safety), located at port and starboard side preferably, is to be fitted and fully operational. If installation is not yet available it should be provided not later than vessel next dry dock.
b) Storage and service bunker (fuel oil and gas oil) tanks must have high-level alarms.
3. Prevention of Damage to people and environmental impact

Examination of Officer Experience

OCIMF Officer Matrix is reviewed

- The maritime system is a **people system**, and human errors figure prominently in casualty situations. About 75-96% of marine casualties are caused, at least in part, by some form of human error.

**Officer’s Crew Details - LNG**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Nationality</th>
<th>Cert. comp.</th>
<th>Issuing country</th>
<th>Admin. accept</th>
<th>Tanker cert.</th>
<th>STCW V para.</th>
<th>Radio qual.</th>
<th>Operator Rank</th>
<th>Tanker type</th>
<th>All types</th>
<th>Months tour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master</td>
<td>Romanian</td>
<td>Class 1</td>
<td>Romania</td>
<td>Yes</td>
<td>Gas</td>
<td>Para 2</td>
<td>Yes</td>
<td>4</td>
<td>6</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>Chief Officer</td>
<td>Romanian</td>
<td>Class 1</td>
<td>Romania</td>
<td>Yes</td>
<td>Gas</td>
<td>Para 2</td>
<td>Yes</td>
<td>2</td>
<td>0.7</td>
<td>1.3</td>
<td>1.2</td>
</tr>
</tbody>
</table>

**Vetting requires a minimum time of experience with Technical Operator, experience in rank and sailing experience on board the type of tanker in which Officers sail.**
3. Prevention of Damage to people and environmental impact

Examination of Officer Experience

<table>
<thead>
<tr>
<th>Rank</th>
<th>SPOT &amp; COA</th>
<th>TIME CHARTERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calendar time with Technical Operator</td>
<td>Aggregate not less than 2 years</td>
<td>Aggregate not less than 2 years</td>
</tr>
<tr>
<td>On board sea time in Rank</td>
<td>Aggregate not less than 3 years</td>
<td>Aggregate not less than 3 years</td>
</tr>
<tr>
<td>On board sea time on Type of Tanker</td>
<td>Aggregate not less than 6 years</td>
<td>Aggregate not less than 6 years</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Master &amp; Chief Officer</th>
<th>Chief Engineer &amp; 2nd Engineer</th>
<th>2nd Officer &amp; 3rd Officer</th>
<th>Master</th>
<th>Chief Officer</th>
<th>Chief Engineer</th>
<th>2nd Engineer</th>
<th>2nd Officer &amp; 3rd Officer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calendar time with Technical Operator</td>
<td>Aggregate not less than 2 years</td>
<td>Aggregate not less than 2 years</td>
<td>N/A</td>
<td>Aggregate not less than 2 years</td>
<td>Aggregate not less than 2 years</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On board sea time in Rank</td>
<td>Aggregate not less than 3 years</td>
<td>Aggregate not less than 3 years</td>
<td>Aggregate not less than 1 year</td>
<td>Aggregate not less than 3 years</td>
<td>Aggregate not less than 3 years</td>
<td>Aggregate not less than 1 year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On board sea time on Type of Tanker</td>
<td>Aggregate not less than 6 years</td>
<td>Aggregate not less than 6 years</td>
<td>N/A</td>
<td>3 years</td>
<td>2 years</td>
<td>3 years</td>
<td>2 years</td>
<td>N/A</td>
</tr>
</tbody>
</table>
3. Prevention of Damage to people and enviromental impact

Oil Spill Prevention

The number of large spills has decreased significantly in the last 45 years.
3. Prevention of Damage to people and enviromental impact

Oil Spill Prevention. ITOPF OIL Spill Statistics

Repsol does not appear on this statistics since 1992

<table>
<thead>
<tr>
<th>Position</th>
<th>Shipname</th>
<th>Year</th>
<th>Location</th>
<th>Spill size (tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ATLANTIC EMPRESS</td>
<td>1979</td>
<td>Off Tobago, West Indies</td>
<td>287,000</td>
</tr>
<tr>
<td>2</td>
<td>ABT SUMMER</td>
<td>1991</td>
<td>700 nautical miles off Angola</td>
<td>260,000</td>
</tr>
<tr>
<td>3</td>
<td>CASTILLO DE BELLVER</td>
<td>1983</td>
<td>Off Saldanha Bay, South Africa</td>
<td>252,000</td>
</tr>
<tr>
<td>4</td>
<td>AMOCO CADIZ</td>
<td>1978</td>
<td>Off Brittany, France</td>
<td>223,000</td>
</tr>
<tr>
<td>5</td>
<td>HAVEN</td>
<td>1991</td>
<td>Genoa, Italy</td>
<td>144,000</td>
</tr>
<tr>
<td>6</td>
<td>ODYSSEY</td>
<td>1988</td>
<td>700 nautical miles off Nova Scotia, Canada</td>
<td>132,000</td>
</tr>
<tr>
<td>7</td>
<td>TORREY CANYON</td>
<td>1967</td>
<td>Scilly Isles, UK</td>
<td>119,000</td>
</tr>
<tr>
<td>8</td>
<td>SEA STAR</td>
<td>1972</td>
<td>Gulf of Oman</td>
<td>115,000</td>
</tr>
<tr>
<td>9</td>
<td>IRENE SERENADE</td>
<td>1980</td>
<td>Navarino Bay, Greece</td>
<td>100,000</td>
</tr>
<tr>
<td>10</td>
<td>LIRIOQUIOLA</td>
<td>1976</td>
<td>La Coruna, Spain</td>
<td>100,000</td>
</tr>
<tr>
<td>11</td>
<td>HAWAIIAN PATRIOT</td>
<td>1977</td>
<td>300 nautical miles off Honolulu</td>
<td>95,000</td>
</tr>
<tr>
<td>12</td>
<td>INDEPENDENTTA</td>
<td>1979</td>
<td>Bosphorus, Turkey</td>
<td>94,000</td>
</tr>
<tr>
<td>13</td>
<td>JAKOB MAERSK</td>
<td>1975</td>
<td>Oporto, Portugal</td>
<td>88,000</td>
</tr>
<tr>
<td>14</td>
<td>BRAER</td>
<td>1993</td>
<td>Shetland Islands, UK</td>
<td>85,000</td>
</tr>
<tr>
<td>15</td>
<td>AEGEAN SEA</td>
<td>1992</td>
<td>La Coruna, Spain</td>
<td>74,000</td>
</tr>
<tr>
<td>16</td>
<td>SEA EMPRESS</td>
<td>1996</td>
<td>Milford Haven, UK</td>
<td>72,000</td>
</tr>
<tr>
<td>17</td>
<td>KHARK S</td>
<td>1989</td>
<td>120 nautical miles off Atlantic coast of Morocco</td>
<td>70,000</td>
</tr>
<tr>
<td>18</td>
<td>NOVA</td>
<td>1985</td>
<td>Off Kharg Island, Gulf of Iran</td>
<td>70,000</td>
</tr>
<tr>
<td>19</td>
<td>KATINA P</td>
<td>1992</td>
<td>Off Maputo, Mozambique</td>
<td>67,000</td>
</tr>
<tr>
<td>20</td>
<td>PRESTIGE</td>
<td>2002</td>
<td>Off Galicia, Spain</td>
<td>63,000</td>
</tr>
<tr>
<td>35</td>
<td>EXXON VALDEZ</td>
<td>1989</td>
<td>Prince William Sound, Alaska, USA</td>
<td>37,000</td>
</tr>
<tr>
<td>131</td>
<td>HEBEI SPIRIT</td>
<td>2007</td>
<td>Taean, Republic of Korea</td>
<td>11,000</td>
</tr>
</tbody>
</table>
3. Prevention of Damage to people and environmental impact

CAP: Condition Assessment Program

REPSOL was pioneer:
- Asking for CAP before CAS (Condition Assessment Scheme)
- Asking for CAPs in LNG Vessels

REPSOL VETTING PROCESS AND CRITERIA

VI.12. - Condition Assessment Program (CAP)
Vessels 20 years old, or more, and over 5000 MT SDWT, will need at least a CAP 2 (GOOD) rating for hull, machinery and cargo handling system with a validity of 3 years from the last date of CAP survey. Owners should allow sufficient time for renewing the CAP’s certificates.

VI.13. - Hull Structural Fatigue Analysis
Vessels bigger than 150 m in length and older than 20 years will need a comprehensive fatigue analysis.

Repsol Vetting, April 30th 2015
The charterer has now become linked, at least in the public mind, to the operator of the chartered vessel

4. Key for Safeguard Charterer’s Reputation

- Amoco Cadiz
- Torrey Canyon
- Exxon Valdez
- Erika
- TOTAL
Repsol Vetting participates in OCIMF’s SIRE program, 49.6% of Repsol inspections (364) have been submitted to SIRE in 2014, 583 SIRE reports from another Oil Majors have been reviewed.

Repsol Vetting has fully participated in OCIMF’s TMSA program. We have reviewed 367 Ship Operator’s Self assessment files.
## 5. Values. Flexibility & Responsibility

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preliminary Evaluations</strong></td>
<td>1834</td>
<td>1775</td>
<td>1509</td>
<td>1678</td>
</tr>
<tr>
<td></td>
<td>1596 (87%)</td>
<td>1597 (90%)</td>
<td>1313 (87%)</td>
<td>1494 (89%)</td>
</tr>
<tr>
<td></td>
<td>238 (13%)</td>
<td>178 (10%)</td>
<td>196 (13%)</td>
<td>184 (11%)</td>
</tr>
<tr>
<td><strong>Vetting Inspections</strong></td>
<td>918</td>
<td>933</td>
<td>762</td>
<td>733</td>
</tr>
<tr>
<td></td>
<td>782 (85%)</td>
<td>776 (83%)</td>
<td>651 (85%)</td>
<td>645 (88%)</td>
</tr>
<tr>
<td></td>
<td>136 (15%)</td>
<td>157 (17%)</td>
<td>111 (15%)</td>
<td>88 (12%)</td>
</tr>
<tr>
<td><strong>SIRE Inspections</strong></td>
<td>590</td>
<td>515</td>
<td>415</td>
<td>364</td>
</tr>
<tr>
<td><strong>Safety Inspections</strong></td>
<td>16</td>
<td>16</td>
<td>25</td>
<td>85</td>
</tr>
<tr>
<td><strong>Use of third party SIRE inspections</strong></td>
<td>560</td>
<td>648</td>
<td>467</td>
<td>538</td>
</tr>
<tr>
<td><strong>TMSA Audits</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>9</td>
</tr>
</tbody>
</table>

Repsol vetting processes and criteria evolves according to experience and lessons learned.
5. Values. Innovation

Sire Report Risk Analysis

<table>
<thead>
<tr>
<th>Question</th>
<th>Question text</th>
<th>Answer</th>
<th>Value</th>
<th>Chapter</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.22</td>
<td>Date of expiry of the Class Certificate</td>
<td>2016-02-06</td>
<td>6</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>5.45</td>
<td>Are lifesaving, light, buoyant lines, quick-release mechanisms and self-activating smoke floats in good order? Operator comments: All random lifesaving lines checked and found the HSOL and one on deck with a hole, most probably as per rating construction, which could lead to a loss of buoyancy.</td>
<td>N</td>
<td>1</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>5.58</td>
<td>Are isolating valves on the fire system lines clearly marked and in good order? Operator comments: A foam valve, fitted close to the PPU breaker, found not working properly. It was difficult to close by hand, the use of a spanner was necessary.</td>
<td>N</td>
<td>1</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>19.24</td>
<td>Are hot surfaces, particularly diesel engines, free of any evidence of fuel, diesel and lubricating oil? Operator comments: General diesel engine, observed clean and dry.</td>
<td>N</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Final status: Rejected

Our system detects High Risk Observations from SIRE Reports and highlights them.

Vessels with more than 8 points are rejected by the system and assessed by our team.
Repsol Vetting Process

- Preliminary Evaluation
- Repsol Voyage
- Vetting Inspection

- Age < 15 years + SIRE 6 M. – 2nd Consecutive Voyage
- Spot – 5 years < Age < 1 year + SIRE 6 months
Repsol Vetting Process

Initial state
1. Acceptable
   - With date of validity
   - For a single voyage
2. Non assessed
3. On Hold
4. Non accepted
5. Not Registered

Preliminary evaluation
Acceptable
- for a single voyage
- for a 2nd consecutive voyage
- for 6 months (>1<5 years)
Non accepted

Physical Inspection
Acceptable
- for 6 months (>15 years)
- for 12 months (>5<15 years)
- for 18 months (<5 years)
Non accepted

REPSOL
Repsol Vetting Process

Repsol Vetting, April 30th 2015
### Repsol Vetting Process

#### Commercial Interest
- 1. Acceptable
  - With date of validity
  - For a single voyage
- 2. Non assessed
- 3. On Hold
- 4. Non accepted
- 5. Not Registered

#### Preliminary Evaluation
- **Acceptable**
  - For a single voyage
  - For a 2nd consecutive voyage
  - For 6 months (>15 years)
  - For 12 months (>5<15 years)
  - For 18 months (<5 years)
- **Non accepted**

#### Physical Inspection
- **Acceptable**
  - For 6 months (>15 years)
  - For 12 months (>5<15 years)
  - For 18 months (<5 years)
- **Non accepted**

Repsol Vetting, April 30th 2015