

Local Service **Global** Support



Delivering Integrity

# EM&I Alliance Company Profile



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Reviewed by	DMM	Date	05/01/11

### **Commercially Confidential**

This document is commercially confidential and must not be used or distributed to unauthorized persons without the prior written permission of a Director of a member of the EM&I Alliance.

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## 1.0 INTRODUCTION


EM&I was established over 30 years ago and is an independent specialist supplier of asset integrity management, inspection, repair and maintenance services to large multinationals in the Oil, Gas and Petrochemical industries. EM&I's wider industrial experience from the marine, power generation, petrochemical, refinery, nuclear and aerospace industries brings effective, innovative solutions to each and every Client.

### Track Record

EM&I has strategically located bases throughout the world, delivering cost effective solutions locally, and an established long term track record of repeat business worldwide with all of the oil majors, servicing various types of installation including some 60 fixed installations, 40 floating production and six onshore terminals and facilities.

Our Client base includes, but is not limited to, Agip, Angola LNG, Apache, BHP Billiton, Bluewater, BP, CACT, CLJOC, CNOOC, Chevron, ConocoPhillips, ExxonMobil, Maersk, MODEC, SBM, Shell, Suncor, Texaco and Woodside. This extensive track record increases EM&I's global knowledge base and benefits our Clients through our ability to propose effective solutions and optimised methods for a variety of projects. EM&I have also had exposure to projects across multiple continents, and are familiar with the following countries and regulatory regimes:

- Angola
- Australia
- Brazil
- Canada
- China
- Denmark
- Equatorial Guinea
- France / Monaco
- Holland
- Indonesia
- Italy
- Malaysia
- New Zealand
- Nigeria
- Norway
- South Africa
- Singapore
- Vietnam

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- United Kingdom
- United States of America

EM&I is managed by an experienced team, employing over 120 staff, including more than 70 skilled engineers and technicians. EM&I also takes leadership roles in managing our joint ventures and can call upon the engineering and technical resources of our joint venture partners which total over 10,000 engineers and specialists of various disciplines. This allows us to up-man and manage large projects and gives confidence in our ability to deliver what we promise.

### **Safe Working**

EM&I has a particularly good health and safety track record having won the Royal Society for Prevention of Accidents (RoSPA) Gold Award in 2008, 2009 2010, and 2011 and the IFAP / CGU SafeWay Silver Award for two consecutive years by our Australian operations. EM&I has also won numerous other awards including the Seatrade Award for Innovations and the DTI Award for Safety Performance.

### **Accredited**



Work quality is assured through a documented management system which is accredited to ISO 9001:2008 and inspection service standards are underpinned through EM&I's ISO 17020 accreditation, which also allows EM&I to act as an independent inspection authority.

EM&I's innovative services are widely accepted by regulators worldwide and approved and certified by Classification Societies and industry bodies.

### **Joint Ventures**

EM&I has two successful 50 / 50 Joint Ventures that serve to support the services offered to the Oil, Gas and Petrochemical industries. These include Bureau Veritas EM&I and EM&I Stantec, which provide expertise in laboratory services, failure investigations, certification, verification, geographical, geophysical, geotechnical, environmental, instrumentation calibration/repair, vibration analysis, maintenance / spares, consultancy etc.

These Joint Ventures help deliver EM&I's services to Total's UK North Sea assets and to Canadian Clients including ExxonMobil, Husky and Suncor (previously Petro-Canada). These Joint Ventures support and widen the range of services available for Clients' projects.

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## 2.0 SCOPE OF EM&I SERVICES

EM&I provide integrity management services to the Oil & Gas industry both onshore and offshore and use of our wider industrial experience from the marine, power generation, petrochemical, nuclear and aerospace industries to bring innovation and solutions to our Clients.

The services we provide include:



- Asset Integrity System Development
- Inspection & Integrity Management
- Corrosion Protection Services
- Baselines & Integrity Databases
- Inspection / NDT / Testing
- Specialized Repair & Maintenance
- Rope Access / Specialized Access
- Project Management
- Management Support
- Engineering Support

### Global Service for Global Clients

Many projects are designed and constructed in a number of different countries, requiring a local presence in key strategic locations.

EM&I operate globally in Australia, China, Singapore, Vietnam, Nigeria, France, United Kingdom, Canada, Bahamas and the USA and have a sophisticated IT network allowing effective communications and access to all of our resources for each project. Global services are delivered through a single point of contact, easing management burdens throughout a project.

For example, recent projects in Canada and West Africa are manned by Canadian, Australian, UK, Nigerian and Chinese technicians whilst databases and technical documentation are developed in our China offices and specialist equipment provided by our Bahamas operation. This structure allows rapid local response and rapid up-manning of larger projects and the ability to bring worldwide experience and best practice to our Clients' projects in a very cost effective manner.

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### 3.0 APPROVALS & CERTIFICATIONS

#### INDUSTRY AWARDS

- Sea Trade Award
- DTI / British Business Press Award
- Greater China Business Award
- Institute of Marine Engineers Award

#### HEALTH SAFETY AND ENVIRONMENT AWARDS


- ROSPA Gold 2011
- ROSPA Gold 2010
- ROSPA Gold 2009
- ROSPA Gold 2008
- ROSPA Silver 2007
- IFAP/ICU Silver 2010
- IFAP/ICU Silver 2009
- Leith Offshore Safety Award

#### QUALITY CERTIFICATION

- ISO 9001:2008 EM&I (UK) Ltd
- ISO 9001:2008 EM&I (Maritime) Ltd
- ISO 9001:2008 EM&I (Australia) Pty Ltd
- NATA AS/NZS ISO/IEC 17020

#### CLASSIFICATION SOCIETY CERTIFICATION



- American Bureau of Shipping
- Bureau Veritas
- Lloyd's Register
- Det Norske Veritas
- Germanischer Lloyd
- Nippon Kaija Kyokai
- RINA

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#### **TRADE ASSOCIATION MEMBERSHIP**

- Royal Society for the Prevention of Accidents (RoSPA)
- British Institute of Non Destructive Testing (BINDT)
- Industrial Rope Access Trade Association (IRATA)
- Australian Corrosion Association (ACA)
- Chamber of Commerce and Industry of Western Australia (CCI of WA)
- Australian Petroleum Production and Exploration Association Limited (APPEA Limited)
- Australian Institute of Non-Destructive Testing (AINDT)

Note – Evidence of certification is available on request



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#### 4.0 CLIENT BASE




A track record is available on request.



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## 5.0 INNOVATIONS

EM&I Proprietary & Specialized Inspection Methods	
Description	Image
<p><b><u>MASS (Marine Access Survey and Safety)</u></b> A flexible package using specialist access, survey and reporting methods of inspection, NDE and condition monitoring.</p>	
<p><b><u>CYCLOPS – Helmet Mounted CCTV</u></b> CYCLOPS is a helmet mounted CCTV system. EM&amp;I specialist technicians have the ability to transmit survey data to a console, which allows communication between technician and owner or regulator representative.</p>	
<p><b><u>COBRA – Difficult Access Inspection</u></b> A miniature gas safe CCTV system which has been designed for thorough examination of difficult access areas such as pipework, pressure vessels, bottom plating underneath bellmouths etc.</p>	
<p><b><u>POWERMAP</u></b> Provides safe access for Class surveyors and owners representatives.</p>	
<p><b><u>MOLE – CUI Detection</u></b> MOLE uses specially designed sub-miniature probes which detect moisture, temperature, coating condition and wall thickness, and can remove the need for costly, timely and often unnecessary lagging removal.</p>	
<p><b><u>SNOOPY – In Water Survey</u></b> A method of in-water and sub-sea visual and ultrasonic surveys for floating and fixed installations which avoids the need for support vessels, tank cleaning etc. Tanks can remain in service throughout the survey.</p>	
<p><b><u>GLOVE – Piping Inspection</u></b> Non-intrusive ultrasonic piping integrity method for rapid scan screening using a flexible probe</p>	
<p><b><u>ANALYSE</u></b> A method which uses inspection data statistical analysis software to analyse where piping and pressure vessel hot spots are located. May be used in conjunction with corrosion mapping techniques.</p>	



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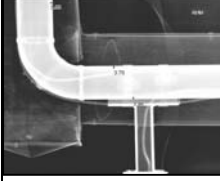
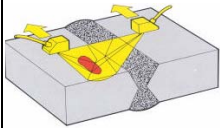



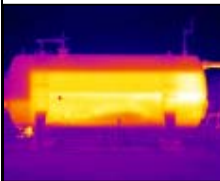
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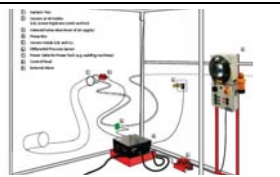



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### EM&I Proprietary & Specialized Inspection Methods

Description	Image
<p><b><u>COMPUTED RADIOGRAPHY</u></b></p> <p>Similar to film radiography with distinct advantages such as digital images, less consumables, lower infrastructure cost, lower radiation, shorter exposure times and less retakes. Particularly useful for CUI and small bore pipework inspections.</p>	
<p><b><u>TIME OF FLIGHT DIFFRACTION</u></b></p> <p>A high-performance computed ultrasonic technique particularly useful for detecting weld defects in process equipment, storage tanks, structures etc and in multi-skip mode for obstructed areas such as under clamps, structural supports etc.</p> <p>Image courtesy of Sonovation</p>	
<p><b><u>PULSED EDDY CURRENT</u></b></p> <p>An inspection technique that can measure wall thickness of steel objects like pipes and vessels without making contact with the steel surface, through coatings, insulation materials and even corrosion products.</p> <p>Image courtesy of Sonovation</p>	
<p><b><u>SLOFEC</u></b></p> <p>A non-invasive eddy current inspection technique used for rapid screening for wall thickness loss on process equipment, storage tanks, structures etc.</p> <p>Photograph courtesy of Innospection</p>	
<p><b><u>LONG RANGE UT</u></b></p> <p>Low frequency ultrasonic technique used to detect defects and imperfections some distance away from the ultrasonic source in a range of components. Particularly used in the detection of corrosion and metal loss in pipes and pipelines.</p> <p>Photograph courtesy of TWI</p>	
<p><b><u>THERMOGRAPHY</u></b></p> <p>A non-contact infrared imaging technique for detecting temperature variations in a wide range of components, structures &amp; materials. May be used for detecting wet insulation, solids build-up, electrical faults, bearing faults etc.</p>	

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<b>EM&amp;I Proprietary Specialised Maintenance and Repair Methods</b>	
<b>Description</b>	<b>Image</b>
<p><u>IGLOO – Hot work</u> maintains a controlled overpressure and is available with an automatic or semi-automatic control system. The control system reduces the POB needed to operate IGLOO as well as enhancing safety by reducing the risk of operator error</p>	
<p><u>IGLOO – Environmental</u> also maintains a controlled overpressure but is combined with Air Handling units to control environmental conditions such as humidity, temperature and air quality as well as controlling vented fumes</p>	
<p><u>Automatic IGLOO</u> is a modular add-on to the standard IGLOO, and is an innovation designed by practical engineers with wide industrial hands-on experience, ensuring the habitat can be rapidly installed in any orientation in a wide variety of shapes and sizes to suit any application. The Automatic IGLOO is also fully compliant with ATEX industry 'best practice' standards.</p>	
<p><u>TOPCAT</u> A tailor made staging system. TOPCAT is installed by rope access teams and once in place enables one or more technicians to perform:</p> <ul style="list-style-type: none"> <li>▪ UHP Blasting</li> <li>▪ Coating Repairs</li> <li>▪ Steel Repairs / Renewals</li> </ul>	
<p><u>TOPCAT – IGLOO</u> A combination of a habitat and a working platform. TOPCAT /IGLOO is therefore particularly suited to areas where it is difficult to erect fixed habitats or to scaffold.</p>	
<p><u>MAP</u> A one man lightweight staging system installed by rope access teams to provide a stable work platform for:</p> <ul style="list-style-type: none"> <li>▪ Steel work repairs/renewals</li> <li>▪ Blasting/painting</li> <li>▪ Other remedial work</li> </ul>	



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## 6.0 COMPLIANCE

Compliance with corporate requirements, international and/or in-country regulatory legislation and Classification Society rules can involve significant costs and duplication of administration, design, inspection and survey effort.

EM&I can make this process easier and less costly by managing the day-to-day compliance and data management process. EM&I's systems avoid duplication of effort by inputting relevant data into a contract specific software program and crediting design, inspection, maintenance and repair records against an agreed compliance requirement.

In this way, regulatory and corporate compliance is an easily demonstrated by-product of the integrity process, whilst reducing management and regulatory costs.

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## 7.0 CONTACT EM&I

For any more information on any of the services contained in this document, or to speak to a member of our Senior Management team, please contact [judy.burdett@emialliance.com](mailto:judy.burdett@emialliance.com) in the first instance.

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## 8.0 EM&I WIDER CAPABILITIES

Other EM&I capability statements are available on request they include the following:

- Operations and Asset Integrity Management System (O-AIMS) Services
- Inspection Repair and Maintenance Services
- Corrosion Protection Services
- Corrosion under Insulation Services
- IGLOO Habitat Services
- Flare System Services

For any more information on EM&I's capabilities or, for further information about the services contained in this document, please contact:

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