



STANDARD FOR CERTIFICATION

No. 2.9

APPROVAL PROGRAMME NO. 416

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# Service Suppliers Engaged in Condition Monitoring of Machinery Onboard Mobile Offshore Units

JANUARY 2012

*The electronic pdf version of this document found through <http://www.dnv.com> is the officially binding version*

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## FOREWORD

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## CHANGES

### General

This document supersedes Approval Programme No. 416, September 2010.

Text affected by the main changes in this edition is highlighted in red colour. However, if the changes involve a whole chapter, section or sub-section, normally only the title will be in red colour.

### Main changes:

— An item has been deleted in the list in 2.3.1.

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## **1. General**

### **1.1 Scope**

Companies providing condition monitoring services of machinery and equipment, in order to offer an alternative to calendar based renewal surveys shall be approved by the Society. The companies shall be approved in accordance with this programme and applicable DNV Rules. In the following, such companies are referred to as the Supplier.

### **1.2 Objective**

This approval programme is included in the DNV Service Supplier activity and was developed in order to accommodate the latest edition of the ISO 9000 series regarding subcontractors. The objective of this approval programme is to ensure that the Supplier is using appropriate procedures, has qualified and certified personnel and has implemented written procedures for training, performance, application, control, verification and reporting. In addition, the Supplier shall furnish appropriate equipment and facilities commensurate with providing a professional service.

### **1.3 Extent of engagement**

The approval programme defines the procedures required in obtaining the Society's approval for carrying out the condition monitoring of machinery and equipment, normally subject to renewal and annual survey on mobile offshore units classed by the Society. Single point of contact for this approval programme is OUiO (Offshore Units in Operation, i.e. GCSNO782, email: GCSNO782@dnv.com)

### **1.4 Validity**

The approval will be valid for three (3) years. For cancellation of approval, see Sec.6.

### **1.5 Terms**

Reference is made to DNV-OSS-101 and 102, Ch.3 and current version of ISO 9000 series.

## **2. Requirements to Supplier**

A Certificate of Approval will be awarded and maintained on the basis of compliance with the following (sections 2.1 to 2.13):

### **2.1 Submission of documents**

The following documents shall be submitted for review:

- an outline of the Supplier's organisation and management
- structure of the company, including any subsidiaries to be included in the approval
- information on the implemented Quality Management System
- quality manual and/or documented procedures covering the requirements given in 2.3
- written work procedures developed in accordance with the requirements of DNV-OSS-101 and 102 Ch.3
- written procedures for the applicable condition monitoring method used
- training and certification programmes for condition monitoring operators
- experience of the Supplier in the specific service area
- a list of operators' documented training and experience within the relevant service area, including qualifications and condition monitoring certification according to recognized national and international standards, as relevant
- description of equipment used for the particular service for which approval is sought
- formats for recording results of the services referred to in 2.13
- records of customer complaints/claims and corrective actions
- information on any legal proceedings against the company in the past/currently in courts of law
- information on other activities which may present a conflict of interest.

### **2.2 Extent of approval**

The Supplier shall demonstrate, as required in sections 2.3 to 2.13, that the supplier has the competence and organisation needed to perform the specified services.

### **2.3 Quality Management System**

#### **2.3.1 Quality system**

The Supplier shall have a documented quality management system, covering at least:

- work procedures
- internal audits
- preparation, issuance, maintenance and control of documents
- maintenance and/or calibration of the equipment
- training programmes for the condition monitoring operators and the Supervisors
- supervision and verification of operation to ensure compliance with the approved operational procedures
- quality management of subsidiaries
- job preparation
- recording and reporting of information, including retention time of records
- code of conduct for the activity
- periodic review of work process procedures
- corrective and preventive action
- feed back and continuous improvement.

A documented Quality system complying with the most current version of ISO 9000 series and including the above items will be considered acceptable.

#### **2.4 Training and Certification of condition monitoring personnel**

The Supplier is responsible for the training and 3rd party certification of its operators to a recognized certification scheme. Records of qualifications and training shall be maintained.

#### **2.5 Supervisor**

The Supplier shall have one or more Supervisors responsible for the appropriate execution of the condition monitoring. The supervisors shall be responsible for the professional standard of the operators and their equipment, including the professional administration of the working procedures. Certification of the operators shall be accessible to the Society. The Supervisor, as a minimum, shall be independently certified to the requirements of Category IV, according to ISO 18436-2.

#### **2.6 Operators**

The operator carrying out condition monitoring shall be qualified and certified to the appropriate level for their scope of work, minimum Category 1 in accordance with ISO 18436-2. The operators shall have adequate knowledge of the systems and components handled, sensors, equipment and the limitations of the relevant condition monitoring methods applied.

#### **2.7 Personnel records**

The Supplier is required to keep records of approved condition monitoring operators. The records shall contain information on age, formal qualification, training, certification, revalidation and performing experience in condition monitoring.

#### **2.8 Equipment**

A record of the equipment used for condition monitoring shall be kept. The records shall contain information on maintenance and calibration. Where the Supplier hires equipment from external resources such equipment shall have available calibration records.

#### **2.9 Work procedures and instructions**

The Supplier shall have documented work procedures with reference to national / international standards, containing at least information on the condition monitoring methods used, calibration checks, inspection procedure, defect evaluation against acceptance criteria (in accordance with DNV Rules or other applicable project requirements), and reporting.

#### **2.10 Administrative procedures**

The Supplier shall have an order reference system where each engagement / job / order is traceable as to when, who and where testing was carried out, including the location of test record and reports.

#### **2.11 Verification**

The Supplier shall have a system for verifying that the services provided are carried out in accordance with approved procedures. Executed verification shall be documented.

#### **2.12 Sub-contractors**

The Supplier shall give information relating to agreements and arrangements made - if any part(s) of the services provided are subcontracted. The Supplier in following-up subcontracts, shall give particular emphasis to the status of the quality management system of the subcontractor. Subcontractors shall, as the Supplier, have to meet the requirements of 2.1 to 2.13 of this programme.

## **2.13 Reporting**

All condition monitoring records, shall be properly documented and retained in such a way that all conclusions can easily be re-traced later. The reports shall identify extent and location of measurements performed in terms of machine identifying numbers, defects indicated, and a conclusive statement regarding the state of the equipment. In addition, and as a minimum, the following information must be given:

- name of the Supplier
- name of the Mobile Offshore Unit and the DNV Class
- identification number ID
- place and date of examination
- test equipment used
- name and signature of the person issuing the report
- name and signature of the Service Supplier Representative verifying the report.

## **3. Approval procedures**

### **3.1 Initial audit**

The Society will carry out the audit of the Supplier once all documentation and information received from the Supplier has been evaluated. The audit will be carried out by reviewing records submitted by the Supplier, visiting the Supplier's facility and/or office for the purpose, among other things, of interviewing inspection personnel, including the Supervisor.

### **3.2 Renewal audit**

Renewal of the Certificate of Approval shall be made at intervals not exceeding 3years, through audit confirming or otherwise, that the initial approval conditions are being maintained. In order to retain an uninterrupted approval, the Supplier must at least three months ahead of a valid current Certificate of Approval's expiry date, apply to the Society for renewal of the certificate.

### **3.3 Random Audit**

DNV may initiate random audits if deemed necessary. The Supplier shall on request provide access to relevant records, supplier's people and facilities, for DNV's auditing personnel.

## **4. Certificate of Approval**

### **4.1 Approval of the Supplier**

If the submitted documentation, the Surveyor 's audit and the practical demonstrations are all found satisfactory to DNV, the Supplier will receive a Certificate of Approval.

## **5. Information on alteration to the certified service operation system**

### **5.1 Alterations**

If any alteration to the certified service operation system (of the Supplier) is made by the Supplier, such alteration must be reported immediately to the Society. In such cases re-audit may be required as and when deemed necessary by the Society.

## **6. Cancellation of the Certificate of Approval**

### **6.1 Right to cancel**

The Society reserves the right to cancel the Certificate of approval in the following cases:

where service was improperly carried out, or results were

- improperly reported
- where a surveyor finds deficiencies in the approved service supplier's operative system and appropriate corrective action is not taken
- where the Supplier fails to inform DNV of any alteration made, as given in 5.1
- where random audit, if requested as described in 3.3, has not been possible to carry out
- where willful acts or omissions are ascertained.

## **6.2 Information**

The Society reserves the right to inform interested parties on cancellation of the Certificate of Approval.

## **6.3 Re-approval**

A Supplier that has had the Certificate of Approval cancelled, may apply for re-approval after a period of 6 months. This possibilities not open, however, if the cancellation was based on grave fault, such as being in violation of professional ethical code of conduct.

## **7. References**

- DNV-OSS-101 Ch.3 Sec.3 and 7.
- ISO 17359 - Condition monitoring and diagnostics of machines – General guidelines.
- Current version of ISO 9000 series - Quality management.