



**INTERNATIONAL ELECTROTECHNICAL COMMISSION SCHEME
FOR CERTIFICATION TO STANDARDS RELATING TO EQUIPMENT FOR
USE IN EXPLOSIVE ATMOSPHERES
(IECEx SCHEME)**

Ex Management Committee, ExMC

**TITLE: IECEx Assessment Report for acceptance of Det Norske Veritas
(DNV) Certification AS as an IECEx Certification Body (ExCB)**

This document contains the IECEx Assessment Report for the acceptance of **Det Norske Veritas (DNV) Certification AS** as an IECEx Certification Body (ExCB) within the IECEx Scheme.

The report is hereby submitted for voting

Please consider the assessment report and return the completed voting form to the Secretariat by **2005 09 30**. Your speedy response to the voting process will be very much appreciated.

You may return your completed voting form (available in Word format) via fax or e-mail. Details below.

A handwritten signature in black ink, appearing to read 'C. Agius', is positioned above the typed name and title.

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IECEX ASSESSMENT REPORT FORM (IECEX Certification Body – ExCB)

Type of Assessment:

Initial Assessment for Candidate ExCB X
Surveillance Assessment for existing ExCB

1. OBJECT AND FIELD OF APPLICATION

1.1 **Country:**
Norway

1.2 **Name of Candidate ExCB**
Det Norske Veritas (DNV) Certification AS

1.3 **Members Of The Assessment Team**
Mr C. Agius
Mr V. Varma

Off site: Document review and support
Bill Dunn (Expert Assessor)

1.4 **Place And Date Of Assessment**
Veritasveien 1 First Site Assessment = 17 + 18 November 2004
1322 Hovik, Norway Follow-up Site Assessment = 17 + 18 February 2005

Site Assessors:
Mr C. Agius- Lead Assessor
Mr V. Varma

Following a review of all documentation submitted, a site assessment was conducted on 17 and 18 November 2004. Two assessment team members, on the basis of existing national accreditation for the ExTL, conducted the site assessment. The site visit included a full audit to ISO/IEC Guide 65 and the completion of the ISO/IEC Guide 65 assessment report (retained on file at the IECEx Secretariat). While compliance with the management system elements of Guide 65 were noted a number of other items specifically related to IECEx Certification were raised requiring revisions to the DNV quality system procedures.

Changes made by DNV management were reviewed at a follow-up site visit on 17 and 18 February 2005, with Team Leader and Team Member, Mr Varma participating in the follow-up site assessment visit. The third Team Member, Mr Dunn provided a supporting role and participated in the review of follow up documents

1.5 **Assessment References**

Document:
i) ISO/IEC Guide 65
i) IECEx 02 Second Edition
ii) IECEx Operational Document OD/005, OD/009, OD/010, OD/012



- iii) ExCB application documents
- iv) IECEx Operational Document OD/003 (ExMC/100/CD)

1.6 **Scope Of Application**

During the on-site visit the scope of application was confirmed to align with the scope of application as follows:

Product Category	Standard
General Requirements	IEC 60079-0
Flameproof Enclosures	IEC 60079-1
Pressurised Equipment	IEC 60079-2
Increased Safety	IEC 60079-7
Intrinsic Safety	IEC 60079-11
Encapsulation	IEC 60079-18

1.7 **Candidate ExCB Persons Interviewed**

During the course of both the site visits to DNV Certification AS most of the Hazloc and related personnel were interviewed. The following are examples of some of the management and staff interviewed during the assessment.

Name	Position
Ms Line Gangskar	Head of Section Testing, Product & Personnel Certification
Mr Bjorn Spongsveen	Service Responsible, Hazardous Locations
Mr Hakon S Hakonsen	Senior Engineer

1.8 **Legal Entity Of The Candidate ExCB**

Det Norske Veritas Certification AS provides testing and certification of products.

All the relevant documents of DNV Certification AS are retained on file at the IECEx Secretariat Offices.

1.9 **Associated Testing Laboratories**

Names of Laboratories	Address
Det Norske Veritas Certification AS has an integral ExTL	As above

While the ExTL is integral with the Certification Body, the assessment team are satisfied that the quality management system and operational procedures provide sufficient separation of the testing and certification functions.

1.10 **Associated Certification Functions**

DNV are well known for the various certification activities, other than Ex which include:-

- Product Safety
- Maritime
- Management System Certification, eg ISO 9001
- Certification activities on behalf of MRA Partners
- ATEX work under the EU Directives



1.11 National Marks

DNV operate its certification operations with access to the DNV Mark,

1.12 Financial Support

Self funded. DNV Certification AS has its own financial and operational management.

1.13 History

Norwegian insurance companies established DNV Certification AS in 1864 as a national alternative to foreign classification societies. They have been engaged in extensive experimental work since 1955 through their own laboratories facilities and equipment.

DNV is an international, knowledge-intensive organisation, active in fields of maritime, certification, consulting and technology services. They also have laboratories in Belgium, Rotterdam, Singapore, New Jersey, Houston and Abu Dhabi.

1.14 Standards Accepted

As per standards listed in Section 1.6 above, IEC 60079 series.

1.15 National Differences To IEC Standards

Norway following the National Differences identified for EU as EU Group Differences in the IECEx Bulletin

2. ORGANISATION

2.1 Names, Titles And Experience Of The Senior Executives

Name	Title	Experience
Mr Per Ove Oyberg	Country Manager, Certification	9 years
Ms Line Gangskar	Head of Section	3 years with testing and Certification
Mr Are Larsen Otterdal	Product Certification Coordinator	12 years (12 years Ex experience)
Mr Bjorn Spongsveen	Service Responsible	16 years (11 years Ex experience)
Mr Hakon S Hakonsen	Senior Engineer	17 years (11 years with electrical Safety and 6 years with Ex equipment)

2.2 Name, Title And Experience Of The Quality Management Representative

Name	Title	Experience
Ms Line Gangskar	Head of Section	3 years with testing and Certification

2.3 Name And Title Of Nominated Principal Contact

Name	Title
Mr Bjorn Spongsveen	Service Responsible, Hazardous Locations

2.4 Name and Title of Signatories for Certification

Mr Bjorn Spongsveen	Service Responsible, Hazardous Locations
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2.5 Other Employees in ExCB activity

2.5.1 Total Numbers

Total number in Test Laboratory: 18



2.5.2 Ex Certification Personnel

Total number in assessment and testing: 6. Three of these are also identified as DNV auditors for IECEx audits. Two of these were subjected to a full and detailed interview with both passing and demonstrating a high level of knowledge both regarding Ex technology and also the differences in conducting auditing under IECEx and auditing under ISO 9001. This demonstrated that the procedure for the training and selection of DNV auditors for IECEx audits is sound.

2.6 Organisational Structure

See DNV Certification AS Quality Manual for ZNWNO420, Section 2.2.1 (Extract as Annex A)

2.7 Administration

2.7.1 Administrative Structure

DNV Operate an independent DNV Advisory Committee to advise and oversee their certification operations

2.7.2 Terms of Reference of the Governing Board

The terms of reference of the DNV Advisory Committee are clearly detailed in document ZNWNO 12-400-01. As part of the DNV application for IECEx acceptance, DNV management made a presentation to the Advisory Committee, with the Advisory Committee conveying their support for the DNV application.

3. RESOURCES

Total number of DNV staff involved in the Hazloc Group is 6

During the on-site assessment the team confirmed the availability of equipment and facilities, the Team were informed of additional staff currently being recruited and were introduced to Mr Are Larsen Otterdal as the new Product Certification Co-ordinator, with 12 years experience in this field. A second additional staff member is being recruited with DNV currently reviewing several applications.

The assessment team are now satisfied with the number of both Testing and Certification personnel to conduct the work according to IECEx rules and procedures.

4. COMMITTEES

Internal: DNV operate the Advisory Committee as mentioned in 2.7.2 above.

External: DNV participate in various technical committees and have undertaken to maintain, and in some cases, extend their level of participation in Committees in order to maintain up to date knowledge of Ex testing and certification matters. Committee involvement includes:

- IECEx Meetings, e.g. ExTAG + ExMC
- ATEX ExNB meetings
- TC 31 related

5. CERTIFICATION OPERATIONS

5.1 The DNV certification operations were reviewed in detail by the assessment team during both site visits. While the first site visit conducted in November 2004, revealed an approach that was in general compliance with ISO/IEC Guide 65, a number of items were raised relating to the specific



requirements of Ex certification under the IECEx Scheme which resulted in DNV conducting a review of their quality system documentation.

During the follow-up site visit conducted in February 2005, the revised procedures and a certification manual were reviewed in detail and found to satisfy the requirements of IECEx, which included clear references to the relevant IECEx Operational Documents.

The Assessment team now concludes that the changes made to the documentation mean that all requirements of IECEx are now fulfilled.

5.2 Certification Policy

The DNV Certification Policy is clearly defined in their Quality Manual.

5.3 Staff Work Instructions

The Quality Manual is now supported by a robust set of procedures and Work Instructions. These include procedures to assist the conduct of IECEx audits of manufacturers.

5.4 Application for Certification

The assessment Team concludes that the DNV application and operational procedures are non-discriminatory.

6. STATISTICS

Certificates Issued during the past 2 years

Type of protection	Number of Issued Certificates
d	7
e	4
i	8
p	2
m	2

7. DOCUMENTATION

Document and Change Control

The Assessment have observed a very effective Document and Change Control system operating within DNV, which utilises a network system for easy access by all staff to the relevant procedures and forms.

8. RECORDS

The DNV procedures ensure that all records related to IECEx activities are maintained for a minimum period of 10 years. The assessment team examined the system for retaining records and also the recollection of data and were satisfied that the requirements of Guide 65 and IECEx were met.

9. CONFIDENTIALITY

All Staff and contractors working for DNV are subjected to a strict confidentiality agreement and notification of any possible conflict of interest. The assessment Team reviewed completed forms along with publicly available documentation and is satisfied that the requirements of both ISO/IEC Guide 65 and IECEx requirements were met.



10. PUBLICATIONS

Staff at DNV have been involved in preparing publications and presentations on Ex Testing and Certification and provide Technical meetings with their clients.

11. APPEALS

The DNV Quality system includes an appeals mechanism as required by ISO/IEC Guide 65 and also reference to the IECEx appeals process, if the complainant wishes to go further.

12. NATIONAL ACCREDITATION

The assessment Team noted that DNV hold national accreditation for ISO/IEC 17025 as well as acceptance to various other schemes that require compliance with ISO/IEC Guide 65 however it does not hold national accreditation for the scope of Ex certification. Therefore, at this stage, the assessment team recommends annual surveillance by IECEx of the DNV ExCB functions.

13. RECOGNITION AND AGREEMENTS

The assessment Team noted various agreements and accreditations, which include:

- Notified Body under ATEX
- IECEE CB Scheme
- Various other Bilateral agreements

14. QUALITY MANUAL

DNV maintain a full and comprehensive Quality Manual that is available on the computer network system for all staff to access. Following revision, after the first site assessment, the assessment team now conclude that the Quality Manual meets the requirements of both ISO/IEC Guide 65 and IECEx Rules.

15. INTERNAL AUDIT AND PERIODIC REVIEW

The DNV Quality Management system provides for regular internal audits according to the DNV audit schedule. During the first site visit the assessment highlighted the need to include the requirements of the IECEx Scheme, e.g. OD 009 as part of the internal audit specification. The internal audit procedures were updated and now fund to address IECEx procedures as part of the internal audit processes.

16. COMPLAINTS

The DNV Complaints system operated by DNV has been expanded to capture all possible complaints relating to IECEx services.

17. WITHDRAWAL AND CANCELLATION OF CERTIFICATES

The DNV procedures provide clear guidance on when and how withdrawal or cancellation of certificates shall take place. The Assessment Team are satisfied that all IECEx requirements have been met.

18. SPECIAL FACTS TO BE NOTED

In noting that the accreditations of DNV do not include Certification activities for the field of Ex, the IECEx assessment team recommend annual surveillance visits in accordance with IECEx rules.



19. RECOMMENDATION

With the successful completion of the two site assessments:

- 17 + 18 November 2004 (Initial Visit)
- 17 + 18 February 2005 (Follow-up visit)

Plus follow-up review of testing files (see ExTL report), The IECEx assessment Team hereby recommends acceptance of DNV as an IECEx Certification Body for the scope specified in 1.6. However given the changes made to the quality system documentation a site assessment is recommended by an IECEx Assessor, no later than 12 months after acceptance by the IECEx Management Committee.

Chris Agius
Team Leader

Mr Vijay Varma

Mr Bill Dunn

LIST OF ANNEXES

A - DNV Organisational Chart

Annex A – Organisation Chart for Ex Activities

ZNWNO420 - Testing, Product & Personnel Certification
2005-05-02

