



ExMC/384/DV  
July 2007

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

**Circulation to: Ex Management Committee**

**Title: IECEx Surveillance Report for DNV, Accepted ExTest Laboratory (ExTL), and  
a request for extension to scope**

---

---

**INTRODUCTION**

This document contains the IECEx Surveillance Report for DNV, Accepted Ex Test Laboratory (ExTL). During the surveillance visit an assessment for an extension of scope was also carried out.

On this occasion, ExMC Members are asked to consider DNV's request for an extension of scope to now include

- IEC 60079-15 Ex n; and the
- IEC 61241 Dust Standards

TGDs covering Ex n and Dusts have been completed and are retained on file at the Secretariat along with site assessment notes and tracking of issues raised and action taken.

We would ask that ExMC Members please consider this request and complete and return the completed voting form to the Secretariat by  
**2007 09 014**

Your speedy response to the voting process will be very much appreciated.

**Chris Agius**  
**IECEx Secretariat**

<b>Address:</b> SAI Building 286 Sussex Street Sydney NSW 2000 Australia	<b>Contact Details:</b> Tel: + 61 2 8206 6940 Fax: +61 2 8206 6272 E-mail: <a href="mailto:chris.agius@iecex.com">chris.agius@iecex.com</a> <a href="http://www.iecex.com">http://www.iecex.com</a>
--	---



ExMC/384/DV  
July 2007

# IECEX SURVEILLANCE REPORT AND EXTENSION TO SCOPE FOR DNV, NORWAY

## IECEX Accepted Test Laboratory ExTL

Type of Assessment: (please mark)

Initial assessment for Candidate ExTL

Re-Assessment of ExTL

Scope Extension and Surveillance of ExTL

X

### 1. OBJECT AND FIELD OF APPLICATION

**1.1. Country:**

Norway

**1.2. Name of Candidate TL**

Det Norske Veritas (DNV) Certification AS

**1.3. Members of the Assessment Team**

Jim Munro                      Lead assessor

**1.4. Place and Date of Assessment**

Veritasveien 1  
1322 Hovik,  
Norway

On site Assessment conducted on 23 November 2006 plus additional off-site work to review procedures and manuals.

**1.5. Assessment References**

- i) IECEx 02 Second Edition 06 2003 IECEx Scheme rules of procedure
- ii) IECEx Operational Document OD/003 IECEx Assessment procedures
- iii) IECEx Operational Document OD/009 Issuing of CoCs, ExTRs and QARs
- iv) ISO/IEC 17025:2005 or 1999 (specify)
- v) IECEx Technical Guidance Documents (TGDs)
- vi) ExTAG decision sheets (DSs)
- vii) ExTL application documents dated 7 November 2006



ExMC/384/DV  
July 2007

### 1.6. Scope of Application

#### Existing Scope:

IEC 60079-0 Part 0: General requirements  
IEC 60079-1 Part 1: Flameproof enclosures 'd'  
IEC 60079-2 Part 2: Pressurized enclosures 'p'  
IEC 60079-7 Part 7: Increased safety 'e'  
IEC 60079-11 Part 11: Intrinsic safety 'i'  
IEC 60079-18 Part 18: Construction, test and marking of type of protection  
encapsulation 'm' electrical apparatus

#### Additional Scope Sought:

Number	Edition	Title
<u>60079-7</u>	Ed 3 (2006) *	Electrical apparatus for explosive gas atmospheres Part 7: Increased safety 'e'
<u>60079-11</u>	Ed 5 (2006) *	Electrical apparatus for explosive gas atmospheres Part 11: Intrinsic safety 'i'
<u>60079-15</u>	Ed 3 (2005)	Electrical apparatus for explosive gas atmospheres Part 15: Construction, test and marking of type of protection "n" electrical apparatus'
<u>61241-0</u>	Ed 1 (2004)	Electrical apparatus for use in the presence of combustible dust. Part 0: General requirements
<u>61241-1</u>	Ed 1 (2004)	Electrical apparatus for use in the presence of combustible dust. Part 1: Electrical apparatus protected by enclosures
<u>61241-4</u>	Ed 1 (2001)	Electrical apparatus for use in the presence of combustible dust. Part 4: Type of protection 'pD'
<u>61241-11</u>	Ed 1 (2005)	Electrical apparatus for use in the presence of combustible dust. Part 11: Protection by intrinsic safety 'iD'

\* To cover latest edition of standards in existing accreditation.

### 1.7. Candidate TL Persons Interviewed

Name	Position
Ms Line Gangeskar	Head of Section Product & Personnel Certification
Mr Bjørn Spongsveen	Service Responsible, Hazardous Locations
Mr Hakon S Hakonsen	Senior Engineer
Mr Stale Sandstad	Project Engineer

### 1.8. Legal Entity of The Candidate TL

Not covered for the extension of scope, as covered by previous assessment.

### 1.9. Associated ExCB

The ExCB is integral with the ExTL.



ExMC/384/DV  
July 2007

**1.10. Financial Support**

Not covered for the extension of scope as covered by previous assessment.

**1.11. History**

Not covered for the extension of scope as covered by previous assessment.

## **2. ORGANISATION**

### **2.1. Names, Titles and Experience of the Senior Executives**

<b>Name</b>	<b>Title</b>	<b>Experience</b>
Mr Kjetil Johansen	Head of Section, Compliance Testing and Field Measurements	6 years (3 in Ex)
Mr Arild Bruun	Country Manager, Certification	25 years (8 in DNV)
Ms Line Gangeskar	Head of Section	4 years with testing and Certification
Mr Are Larsen Otterdal	Product Certification Coordinator	13 years (13 years Ex experience)
Mr Bjorn Spongsveen	Service Responsible	17 years (all with Ex)
Mr Hakon S Hakonsen	Senior Engineer	18 years (11 years with electrical Safety and 7 years with Ex equipment)

### **2.2. Name, Title and Experience of the Quality Management Representative**

<b>Name</b>	<b>Title</b>	<b>Experience</b>
Ms Line Gangeskar	Head of Section	As above

### **2.3. Name and Title of Nominated Principal Contact**

<b>Name</b>	<b>Title</b>	<b>Contact</b>
Mr Bjorn Spongsveen	Service Responsible	

### **2.4. Employees**

<b>Name</b>	<b>Title</b>	<b>Experience</b>
Stale Sandstad		
Nils Jarem		

### **2.5. Organizational Structure**

Organisation is changing to be structured on an industry focus with a matrix approach. They will be in the DNV Industry Branch. This will primarily occurring in 2007. There will be no initial changes in the section but the linkage to the customer will change. A copy of the organisation chart is shown at Annex 1.

## **3. RESOURCES**

There have been two new employees since the initial assessment. There is adequate expertise for the requested extension of scope and test facilities.



## 4. DOCUMENTATION

### 4.1. Quality Manual

Only reviewed for aspects covered by this assessment visit, re Ex n and Dusts.

### 4.2. Test Methods/Procedures

Procedures have been developed for all the techniques covered by the extension of scope.

### 4.3. Test Records

The record keeping appeared satisfactory

### 4.4. Document Change Control

Not covered for the extension of scope as covered by previous assessment.

## 5. TEST REPORTS

### 5.1. Test Reports Issued

Number of test reports issued under the IECEx, national or regional schemes in the preceding two years for each type of protection:

Product category	2005	2006	IECEx 2006
General requirements IEC60079-0 or EN50014	18	15	4
Flameproof enclosures IEC60079-1 or EN50018	6	7	4
Pressurised enclosures IEC60079-2 or EN50016	2	4	
Increased safety IEC60079-7 or EN50019	4	4	3
Intrinsic safety IEC60079-11 or EN50020	7	8	
Encapsulation IEC60079-18 or EN50028	2	2	

## 6. CALIBRATION

All instrumentation viewed for tests equipment used for the extension of scope were in current calibration.

## 7. CONFIDENTIALITY

Not covered for the extension of scope as covered by previous assessment.

## 8. NATIONAL ACCREDITATION

DNV hold national accreditation and are seeking extension of their scope to cover the additional standards sought for IECEx.

## 9. RECOGNITION AND AGREEMENTS

Not covered for the extension of scope as covered by previous assessment.

## 10. INTERNAL AUDIT AND PERIODIC REVIEW

Not covered for the extension of scope as covered by previous assessment.

## 11. COMPLAINTS AND APPEALS (Including appeals to IECEx)



ExMC/384/DV  
July 2007

Not covered for the extension of scope as covered by previous assessment.

## **12. SPECIAL FACTS TO BE NOTED**

### **12.1. Supporting Documentation**

Copies of additional supporting information for this assessment have been provided to the applicant and the IECEx Secretariat. These include:

- Details of issues raised and how these have been resolved
- Checklist for ISO/IEC 17025
- Completed technical guidance notes (TGDs) for dusts and Ex n
- Photos of the facilities

### **12.2. Witnessed tests**

An IP6X test to IEC 60529 was witnessed during the assessment.

### **12.3. Review of Files**

A review was made of a file for issue of a certificate covering Ex d and Ex e; this included ExTR NO/DNV//ExTR06.0002/00.

## **13. COMMENTS (Including issues found during assessment)**

Some issues were found during the assessment including updating and issuing of procedures for the extension of scope, and correction of anomalies found in the above ExTR. Details of these and how they were resolved to the satisfaction of the assessor are contained in the site report.

The formal application for scope extension for IEC 60079-15 was made after the site visit. However, a review of procedures was then made and taking into account the assessment of facilities and staff competence during the on-site visit, recommendation for inclusion of IEC 60079-15 is now included..

## **14. RECOMMENDATION**

Based on the assessment carried out on 23 November 2006 and follow up actions and assessment, it is recommended the scope of DNV as an ExTL be extended to include the additional standards shown in Clause 1.6 subject to resolution of the issues raised.

Given the level of experience in conducting tests to IEC 60079-15 and dusts it is recommended that the first ExTRs issued for Ex n and Dusts be reviewed.

Jim Munro  
Team Leader

Date: 12 May 2007

### **List of Annexes:**

1. Organization Chart for DNV Testing

## Annex 1

- Organization Chart for DNV Testing

