

## **IECEx**

**INTERNATIONAL ELECTROTECHNICAL COMMISSION**

**IEC SCHEME FOR CERTIFICATION TO STANDARDS FOR SAFETY OF  
ELECTRICAL EQUIPMENT FOR EXPLOSIVE ATMOSPHERES (IECEx SCHEME)**

**Ex Management Committee, ExMC**

**This document contains the IECEx Assessment Report for the acceptance of NEMKO as an Accepted Certification Body (ACB) within the IECEx Scheme.**

**NEMKO was initially assessed in 1999, as detailed in the report, assessment however was incomplete pending NEMKO accreditation to ISO/IEC Guide 65. Accreditation has now been achieved. A copy of the accreditation is attached as Annex F.**

**Therefore, following final review by the assessment team, the report is hereby submitted to the ExMC for voting.**

**Please consider the assessment report and return the completed voting form to the Secretariat by **2001 08 24**.**

**You may return your completed voting form (available in Word format) via fax or E-mail to Chris Agius at-**

**E-mail: [chris.agius@qas.com.au](mailto:chris.agius@qas.com.au)  
Fax: + 61 2 8206 6032**

---

## Voting Form

IECEx Assessment Report for acceptance of the following candidate as an Ex Accepted Certification Body

NEMKO AS – Certification Body for Explosion Protection

☐

Yes. I agree with the acceptance of NEMKO AS as an Ex Accepted Certification Body

☐

No. I do not agree with the acceptance of NEMKO AS as an Ex Accepted Certification Body within the IECEx Scheme for the following reasons

---

---

---

---

---

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Member Body: \_\_\_\_\_

Date: \_\_\_\_\_

Please complete and return by **2001 08 24** to:

Mr Chris Agius  
Secretary IECEx

**Address:**  
GPO Box 5420  
Sydney NSW 2001-04-24  
AUSTRALIA

**Visiting Address:**  
286 Sussex Street  
Sydney NSW 2000  
Australia

**Contact Details:**  
Tel: +61 2 8206 6060  
Fax: +61 2 8206 6032  
<http://www.iecex.com>

ExMC

CONFIDENTIAL TO THE ExMC

## **IECEx ASSESSMENT REPORT** **(ACCEPTED CERTIFICATION BODY-ACB)**

### **1. OBJECT AND FIELD OF APPLICATION**

#### **1.1 Country: Norway**

#### **1.2 Candidate ACB Assessed**

Nemko AS (Ex-Equipment Section)

#### **1.3 Members Of The Assessment Team**

D. M. Pearson (Lead Assessor)

A. J. Bossert

A. CZYZ

Site Visit and full assessment to ISO/IEC Guide 40 1983 performed by Lead Assessor only due to size of Ex-Equipment Section (7), Test Laboratory being an integral part of Ex-Equipment Section and the quality system/manual being the same as used by other NEMKO sections accredited to EN 45011.

#### **1.4 Place And Date Of Assessment**

Oslo

16 March 1999

#### **1.5 Assessment References**

Documents

- i) IEC 04 First Edition 1995 - 03
- ii) ExCC/27/INF November 1997
- iii) ISO/IEC Guide 40 1983
- iv) IEC Technical Guidance Documents for Ex d, Ex e and Ex i.

#### **1.6 Scope Of Application**

##### **Product Category**

##### **Standard**

General Requirements

IEC 60079-0

Flameproof Enclosures

IEC 60079-1

Pressurised Enclosures

IEC 60079-2

Increased Safety

IEC 60079-7

Intrinsic Safety

IEC 60079-11

Encapsulation

IEC 60079-18

### ***1.7 Scope Of Capability***

Evidence by assessment indicates that Nemko has the capability to assess product to all standards listed under the scope of application.

### ***1.8 Candidate ACB Persons Interviewed***

<b>Name</b>	<b>Position/Title</b>
Rolf Hoel	Head of Section for Ex-Equipment
Trond Sollie	Assistant Director of Nemko AS
Arne Willy Hortman	Senior Engineer in Section for Ex-Equipment
Oistein Yggeseth	Senior Engineer in Section for Ex-Equipment

### ***1.9 Legal Entity Of The Candidate ACB***

See Articles of Association for Nemko AS and Byelaws for NEMKO Foundation at Annex A

### ***1.10 Associated Testing Laboratory***

The testing Laboratory is an integral part of the Ex-Equipment Section.

### ***1.11 Associated Certification Functions***

ISO 9001, 9002 and 9003 Certification is carried out by Norwegian Certification System AS, owned 50% by NEMKO and 50% by Norwegian Standards, which is accredited by Norsk Akkreditering to EN 45012 (see Annex B).

Audits carried out by Mr. Oistein Yggeseth of the Ex-Equipment Section are accepted by Norwegian Certification System AS

### ***1.12 National Marks And Certificates***

See Annex C

### ***1.13 Financial Support***

The Ex-Equipment Section of Nemko AS is a not-for profit section whose financial objective is to recover the full economic cost of its operation from customers. The Ex-Equipment Section has its own budget and its own compliment of staff.

### ***1.14 History***

NEMKO was founded in 1933 as a Government Body, in 1991 NEMKO became an Independent Foundation and in 1996 became a Limited Company (AS) part of the Foundation.

The Ex-Equipment Section started work in the “Ex-field” in the late sixties and issued its first certificates (5) in 1978.

## 1.15 *National Differences To IEC Standards*

As per EN to IEC

## 2. ORGANISATION

### 2.1 *Names, Titles And Experience of Senior Executives*

Name	Title	Experience
Rolf Hoel	Head of Section for Ex-Equipment	1969-1985 testing of electrical equipment at NEMKO, 1985-1988 testing of electrical equipment for use in hazardous areas, 1988 to date head of laboratory for testing electrical equipment for use in hazardous areas.
Trond Sollie	Assistant Director of Nemko AS	1972-1987 Det Norske Veritas, certification and inspection with marine, offshore and general industry. 1987 to date part of Nemko's management (currently, delegate and assessor in IECEx Scheme).

### 2.2 *Name, Title And Experience Of The Quality Management Representative*

Ole Reitan	Quality Manager	35 years in testing/certification at NEMKO, 15 years as quality manager
------------	-----------------	---

### 2.3 *Name And Title Of Nominated Principal Contact*

Rolf Hoel	Head of Section for Ex-Equipment
-----------	----------------------------------

### 2.4 *Name And Title of Signatory for Certification*

Rolf Hoel	Head of Section for Ex-Equipment , in the absence of Mr. Hoel :-
Arne Willy Hortman	Senior Engineer in Section for Ex-Equipment

## 2.5 Employees

Name	Ex d	Ex e	Ex i	Ex p	Ex m	External QA	Production Surveillance
Arne Willy Hortman	Y +	Y +	Y +	Y +	Y +		
Rolf Hoel	+	+	+	+	+		
Yggeseth Oistein						Y	Y
Rolf Norman Nilsen		Y		Y			
Geir Midmoen	Y +	Y +	Y	Y +	Y		
Hakon S Hakonsen						Y	Y
*Tore Irjall							

**\* Under training, mainly in Ex P**

**+ = Verifies**

**Y = Conducts assessments**

Training and qualifications ( Curriculum Vitae's) are at Annex D

## 2.6 Organisational Structure

A copy of the organisational structure is shown at Annex E.

## 2.7 Administrative Structure

The Foundation Council in the NEMKO Foundation is the general meeting for Nemko AS, the Members of Nemko AS Governing Board are appointed at this meeting. The Foundation Council consists of members from various associations, councils, federations and employees of Nemko AS

Further Details are at Annex A (Articles of Association for Nemko AS and Byelaws for NEMKO)

### 2.7.1 Terms of Reference of The Governing Board

See Annex A (Articles of Association for Nemko AS)

## 3. RESOURCES

The Ex-Equipment Section of Nemko AS is adequately staffed and equipped for its certification activities, ISO 9001, 9002 and 9003 Certification is carried out by Norwegian Certification System AS, owned 50% by NEMKO and 50% by Norwegian Standards, which is accredited by Norsk Akkreditering to EN 45012. Sub contractors must have accreditation for the work they carry out, any documentation issued by Nemko AS using work from sub contractors who do not have the required accreditation will not bear the National Accreditation Logo.

**ExMC**

**CONFIDENTIAL TO THE ExMC**

#### **4. COMMITTEES**

Governing Board / Council which includes members for technical matters.

#### **5. CERTIFICATION OPERATIONS**

##### ***5.1 National Approval/Certification Methods***

<b>Certification Activity</b>	<b>Competence level of person/ organisation performing work</b>	<b>Applicable Standard/Docs</b>
Surveillance Audit	Basic education plus 3 years technical college and experience/ training.	Relevant ISO 9000 Standards, CCA202 and procedures
Product Assessment	As above	Procedures, work instructions and relevant standards
Factory certification Audit	As above	Relevant ISO 9000 Standards/procedures

##### ***5.2 Certification Policy***

Procedures give full details of the policy and process from application stage to withdrawal of certificate/licence.

##### ***5.3 Staff Work Instructions***

Duties and responsibilities are well defined and laid out in a table

##### ***5.4 Application for Certification***

Up to date documents, e.g. Guide for Applicants, Application Form, Guidance for Completion of the Application Form and Terms of Agreement for Testing and Certification of Equipment, include a description of the evaluation and certification process including the rights and duties of applicants/licencees and fees involved.

**ExMC**

**CONFIDENTIAL TO THE ExMC**

## **6. STATISTICS**

### **Number of certificates Issued Over Past 2 Years to EN 50 series standards**

<b>Type Protection</b>	<b>Certificates</b>	<b>Supplementary Certificates</b>
Flameproof Enclosures (EN50 018)	50	25
Pressurised Enclosures (EN50 016)	20	5
Increased Safety (EN50 019)	20	25
Intrinsic Safety (EN50 020)	50	10
Encapsulation (EN50 028)	20	5
Intrinsic Safety Systems (EN50 039)	5	

## **7. DOCUMENTATION**

### **7.1 *Quality Manual***

The quality manual clearly addresses the business of NEMKO

### **7.2 *Document Change Control***

Document change control is effective.

## **8. RECORDS**

Records relevant to certification activities are identified and maintained in a manner that will preserve integrity of certification process.

## **9. CONFIDENTIALITY**

The confidentiality system is suitable for security and confidentiality of applicants information and product.

## **10. PUBLICATIONS**

NEMKO publish a wide range of documents from Guide to Applicants and yearly List of Certified Products.

## **11. APPEALS**

Procedures for appeals are documented, in the first instance they are made to the IPU of NEMKO (3 NEMKO employees) if not resolved at this stage the appeal goes to an independent appointed council committee comprising of 3 members, one a lawyer.



**ExMC**

**CONFIDENTIAL TO THE ExMC**

## **12. NATIONAL ACCREDITATION**

The Ex-Equipment Section of Nemko AS does not have accreditation for its certification activities (however, the quality system is the same as in other Nemko sections already accredited to EN 45011), application for accreditation may be made by the end of this year.

## **13. RECOGNITION AND AGREEMENTS**

Nemko AS is a notified body under Article 9 of Council Directive 94/9 EC of 23 March 1994 for issuing EC-Type Examination Certificates and an Approved Certification Body in accordance with Article 14 of the Council Directive of the European Communities of 18 December 1975 (76/117/EEC) and Article 14 of the Council Directive of the European Communities of 15 February 1982 for issuing Certificates of Conformity.

## **14. QUALITY MANUAL**

The quality manual is relevant to NEMKO's operations

## **15. INTERNAL AUDIT AND PERIODIC REVIEW**

Procedures provide detailed instructions for internal audits, review period and auditor qualifications. Records were available to demonstrate audit planning and results of the yearly scheduled audits which reviews the system and product folders.

The Management reviews are conducted on an annual basis and include results of internal audits.

## **16. COMPLAINTS MECHANISM**

A customer complaints procedure exists, however none of a technical nature have been received to date.

## **17. WITHDRAWAL AND CANCELLATION OF CERTIFICATES**

A withdrawal and cancellation of certificates/licences procedure is documented, however this has not been invoked to date. Certificate/licence holders are subject to an annual surveillance visit.

## 18. COMMENTS

Nemko AS Oslo employs approximately 150 people and has National Accreditation to EN45011 for certifying various types of equipment, the Quality Manual and main procedures are common to the Ex-Equipment Section and therefore they should encounter no major problems when they apply for accreditation.

The Ex-Equipment Section of Nemko AS is well run and capable of carrying out its certification activities.

Certification staff have a good level of technical competence due to them carrying out/being involved with testing work.

## 19. RECOMMENDATION

The visiting assessor recommends full acceptance of the Ex-Equipment Section of Nemko AS into the IECEx Scheme and maintenance in the Scheme being dependant on any required future surveillance and/or National Accreditation being achieved.

## 20. RE 19

The Ex-Equipment Section of NEMKO have now gained Accreditation in accordance with EN 45011 (ISO/IEC Guide 65) by their National Body, Norwegian Metrology and Accreditation Service, to the following EN Standards:

Product Category	Standard
General Requirements	EN 50014 1992 & 1997 (IEC 60079-0) Excluding Clause 23.4.7.5 Resistance to light (same clause for IEC 60079-0)
Flameproof Enclosures	EN 50018 1994 (IEC 60079-1)
Pressurised Enclosures	EN 50016 1995 (IEC 60079-2)
Increased Safety	EN 50019 1994 (IEC 60079-7)
Intrinsic Safety	EN 50020 1994 (IEC 60079-11)
Encapsulation	EN 50028 1998 (IEC 60079-18)

The comparable IEC Standards are shown in brackets.



D. M. PEARSON

15 May 2001

ANNEX A

NEMKO AS  
Corporate Articles

Page 1 of 3

Translation from Norwegian

## Articles of Association

for

**NEMKO AS**  
(Norwegian Electrical Materials Control - Limited Company)  
(as at 5 December 1995)

### Article 1. Name of company

The name of the company is Nemko AS (a limited company).

### Article 2. Business office

The company's business office is in Oslo.

### Article 3. Object

The company's objects are to be an internationally competitive and recognised test laboratory and certification body for testing, sale and use of electrical equipment.

The operations of the company will be based on sound commercial principles.

Moreover the company in so far as its integrity is not compromised may through ownership in other companies carry out other national and international assignments and take part in activities of similar nature.

### Article 4. Share capital

The company's share capital is 50,000,000 Norwegian kroner divided into 50 shares each of 1,000,000 kroner fully paid up and made out to name.

### Article 5. General meeting

The Foundation Council in the NEMKO Foundation is the general meeting for Nemko AS. The annual general meeting must be held by the end of May each year and shall deal with the following business:

1. Stipulation of income statement and balance sheet, including application of the profit for the year or coverage of the loss for the year

**prepos**  
ANSLATØRBYRÅ A.S.

True translation certified



*Government Authorised Translator*

*NEMKO AS*  
*Corporate Articles*

*Page 2 of 3*

2. Stipulation of consolidated income statement and consolidated balance sheet
3. Election of directors
4. Other matters that by law or under these articles are the business of the general meeting.

The general meeting is summoned by the directors in consultation with the chairman of the Council of the NEMKO Foundation. The summons shall be in writing and shall be made at the latest one week prior to the convening of the general meeting.

#### **Article 6. Directors**

The board of directors shall have from five to seven members.

As many as five directors and two deputies will be elected by the general meeting.

As many as two directors and two personal deputies will be elected by and from the employees in the company provided they are entitled to and desire representation on the board.

The board chairman and vice chairman will be elected by the general meeting.

The directors are elected for two years at a time. Reelection is permitted, but no director may sit for longer than 12 years altogether or be elected after reaching 67 years of age. Of the directors elected by the general meeting, two or three directors, respectively, and one deputy will be elected each year.

The board chairman ensures that the directors meet as often as required. A director or the managing director may demand that the board be convened. The board has a quorum when minimum five directors are present. The decision of the board is the resolution supported by the majority of votes cast at the meeting, or in case of a tie vote the resolution supported by the chairman's vote.

The board meetings are chaired by the chairman or in his or her absence the vice chairman.

Minutes will be kept of the board meetings and the minutes will be signed by all directors attending.

#### **Article 7. Duties of board**

The administration of the company's business is the prerogative of the directors, who must secure the satisfactory organisation of the company's business, including, without limitation:

*NEMKO AS*  
*Corporate Articles*

*Page 3 of 3*

1. Stipulate and oversee:
  - Budget, and guidelines for pricing of company services
  - Planned implementation of quality measures in accordance with the adopted quality system for the company
  - Frameworks for salary and working conditions for personnel.
2. Oversee accounts and present them to the general meeting for comment and adoption.
3. Prepare strategic plans for the company to be presented to the general meeting for comment and adoption.
4. Prepare and issue recommendations in matters for submission to the general meeting and otherwise inform general meeting on other key decisions.
5. Engage and dismiss managing director and stipulate his or her salary and other employment conditions.

**Article 8. Signature and procuration**

The signature of the company may be signed jointly by two of the directors elected by the shareholders.

The board of directors may assign procuration powers.

**Article 9. Managing director**

The managing director will conduct the day-to-day administration and prepare matters for submission to the board of directors. The managing director will attend meetings of the board of directors and may speak or propose motions, but may not vote.

The managing director will carry out the decisions adopted by the board of directors.

NEMKO FOUNDATION  
Foundation Belarus

Page 1 of 5

Translation from Norwegian

## Byelaws

for

Stiftelsen Norges Elektriske Materieilkontroll NEMKO  
(Norwegian Electrical Materials Control Foundation)

(as at 5 December 1995)

### *I. Name, form of organisation, head offices, objective*

#### Article 1. Name and form of organisation

The foundation known as NEMKO is a private foundation established under the Act of 23 May 1980, no. 11 relating to Foundations etc.

The foundation is established with effect from 1 January 1991 inclusive and is a direct continuation of the electrical materials control activities established by Norske Elektrisitetsverkers Forening (Norwegian Association of Electricity Works) in 1933, which in 1970 was constituted as an autonomous institution.

#### Article 2. Head offices

The head offices of the foundation are in Oslo.

#### Article 3. Objective

The foundation seeks by its activities to foster safety in the sale and use of electrical equipment.

The foundation through its wholly owned subsidiary Nemko AS, a limited company, shall satisfy Norway's need for an internationally competitive and recognised test laboratory and certification agency that, by virtue of its expertise and autonomous position, can promote security in the sale and use of electrical equipment.

The Foundation, in as far as its integrity is not compromised, may participate in activities with similar aims and carry out other national and international duties in affiliated areas by engaging in the ownership of companies.

The Foundation does not have any commercial objective.

### *II. Capital*

**propo**  
INSLATØRBYRÅ A.S.  
outboke 266 Sentrum  
0108 OSLO

True translation certified



Government Authorised Translator

NEMKO FOUNDATION  
Foundation Byelaws

Page 2 of 5

**Article 4. Primary capital-**

The Foundation's primary capital is NEMKO's net equity capital at the time of formation of the foundation, 31 December 1990, valued in aggregate at 36,900,000 Norwegian kroner.

**Article 5. Reserves**

The Foundation in so far as the income from operations permits shall set aside reserves in a legal reserve aimed at securing the Foundation's financial standing.

The Council may resolve to make provisions to other reserves having special purposes.

**III. Organisation**

**Article 6. Foundation bodies**

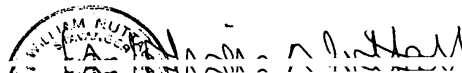
The Foundation is governed by a Council that appoints a business manager, see Article 9. The Foundation also has an electoral committee.

**Article 7. Council composition, appointment and election**

The Foundation Council consists of:

- One member and personal deputy appointed by each of the following organisations:
  - Electrical Association
  - Energy Supply Cooperative Organisation
  - Consumer Council
  - Industry Association for Electrical Engineering and Automation
  - Office and Computer Systems National Association
  - Supplier Federation Sound and Vision
  - Norwegian Electrical Contractors Federation
  - Norwegian Electrical Suppliers National Association
  - TBL Elektro
- Up to one-third, and minimum two, of the Council members and personal deputies will be elected from and by the employees of Nemko AS.

Nominations and elections apply for a two-year period until the opening of the Council's ordinary spring session, see Article 8, first paragraph. Renomination and reelection may take place, but no member of the Council may sit for more than 12 years altogether and no member may be renominated or reelected after reaching 67 years of age.



Page 3 of 5

The Council has a quorum when minimum half the members are present. Each Council member has one vote. Except where otherwise determined, the decision of the Council is the one that the majority of those at the meeting vote for. In case of a tied vote, the side that the chairman voted for shall prevail.

**propops**

WILLIAM NUTTALL  
STANFORD  
Wm Nuttall



NEMKO FOUNDATION  
Foundation Byelaws

Page 4 of 5

If the Council does not have a quorum then a new Council meeting must be summoned. The summons to this meeting must be sent within eight days. This meeting will have a quorum regardless of how many members are present.

#### Article 9. Duties of Council

The Council is the governing body of the Foundation and its duties are to guide the Foundation and ensure that the Foundation is satisfactorily administered, including, without limitation:

1. Consider and adopt the Foundation's annual report and accounts
2. Consider and adopt strategic guidelines for Foundation activities
3. Exercise ownership of and be general meeting for Nemko AS and any other fully owned companies
4. Elect Council chairman and vice chairman
5. Elect electoral committee members and chairman
6. Select auditor and determine auditor's remuneration
7. Decide amendments to Byelaws (Article 12) and reconstitution or dissolution (Article 13)
8. Appoint business manager and determine the manager's remuneration.

In other respects the Council is competent in all matters regarding administration of the Foundation.

#### Article 10. Business manager

The Foundation's business manager will undertake its day-to-day management and will prepare matters for presentation to the Council and other bodies. The business manager is required to attend Council meetings and may speak and propose motions, but may not vote. The business manager will carry out the decisions of the Council.

#### Article 11. Electoral committee

The Foundation shall have an electoral committee comprising three members elected from and by the Council. No individual may be a member of the electoral committee for more than six years altogether.

The electoral committee presents recommendations for all nominations made by the Council.

#### IV. Amendment to Byelaws and reconstitution or dissolution

#### Article 12. Amendment to Byelaws

The Byelaws may only be amended in the ordinary Council meeting, specifically either the spring or autumn meeting as defined in Article 8, first paragraph.



*William Nutter*

*NEMKO FOUNDATION*  
*Foundation Byelaws*

*Page 5 of 5*

The decision to amend the Byelaws requires the assent of minimum two-thirds of the Council members present.

**Article 13. Reconstitution or dissolution**

A decision to present a petition to the King for reconstitution as provided in the Foundations Act chapter VI must be made at the behest and recommendation of the directors of Nemko AS. The reconstitution must not run counter to the objectives of the Foundation, see Article 3. The decision to reconstitute requires the same majority as a decision to amend the byelaws.

If the reconstitution leads to the dissolution of the Foundation, then the Foundation funds - after all obligations towards employees, pensioners and others, inclusive taxes and duties, and expenses in connection with reconstitution, are identified - will be applied so that the objectives the Foundation has sought to serve receive the maximum benefit.



*William Nuttall*

## ANNEX B

Side 1 av 3



## AKKREDITERINGSDOKUMENT

**Akkrediteringsnummer S002**

**Norwegian Certification System AS  
Drammensveien 126 A  
0212 Oslo**

Akkrediteringen omfatter sertifisering av kvalitetssystem  
innenfor omfanget som er spesifisert på de neste sidene i dette dokumentet.

Akkreditering i henhold til NS-EN 45012: 1989 er første gang innvilget 23.12.91, og er gitt i  
overensstemmelse med Stortingsprop. nr. 106 (1989/90) og Norsk Akkrediterings statutter,  
fastsatt i Kgl. resolusjon 7. oktober 1993.

Akkrediteringen forutsetter regelmessig oppfølging og er gyldig til 23.12.99.

Akkrediteringsbeslutningen innebærer at Norsk Akkreditering har funnet at organisasjonen  
opptyller kravene for akkreditert virksomhet innenfor det angitte akkrediteringsområdet.  
Organisasjonen står selv ansvarlig for utførte sertifiseringer.

JUSTERVESENET

15.12.1998  
Dato

Reif Skallan  
avdelingsdirektør



Akkrediteringsdokument  
Akkreditering nr. S002  
Fortegnelse over akkrediteringens omfang

Side 2 av 3

Den administrative/geografiske enheten:

Norwegian Certification System AS  
Drammensveien 126 A  
0212 Oslo

er akkreditert for sertifisering av kvalitetssystem i henhold til følgende standarder:

NS-EN ISO 9001: 1994	Kvalitetssystemer - Modell for kvalitetssikring ved utvikling konstruksjon, tilvirkning installasjon og ettersyn
NS-EN ISO 9002: 1994	Kvalitetssystemer - Modell for kvalitetssikring ved tilvirkning installasjon og ettersyn
NS-EN ISO 9003: 1994	Kvalitetssystemer - Modell for kvalitetssikring ved sluttkontroll og sluttprøving

Akkreditert sertifisering etter ovennevnte standarder er begrenset til følgende bransjer:

01	B05	Fiske, fangst og fiskeoppdrett
02	CA11	Utvinning av råolje og naturgass
	CB13	Bryting av metallholdig malm
	CB14	Bergverksdrift ellers
03		Nærings- og nytelsesmiddelindustri
04	DB17	Produksjon av tekstiler
	DB18.2	Produksjon av andre klær og tilbehør
06		Trevirkeproduksjon
10	DF23.2	Produksjon av raffinerte petroleumsprodukter
12		Fremstilling av kjemikalier og kjemiske produkter unntatt for farmasøytisk og medisinsk bruk
13		Fremstilling av farmasøytiske produkter og kjemiske stoffer til medisinsk og botanisk bruk
14	DH25.2	Produksjon av plastprodukter
15		Produksjon av andre ikke-metalliske mineralprodukter unntatt sement, kalk og gips
16		Produksjon av sement, kalk og gips samt betong og gipsprodukter
17		Metallfremstilling, metallvareproduksjon
18		Produksjon av maskiner, våpen, ammunisjon samt utstyr som ikke er nevnt i DI, DM og DN
19	DL31	Produksjon av andre elektriske maskiner og apparater
	DL32	Produksjon av radio-, fjernsyns- og annet kommunikasjonsutstyr
	DL33.2	Produksjon av måle- og kontrollinstrumenter og utstyr, unntatt industrielt prosessstyringsanlegg
20		Bygging og reparasjon av skip og båter
21		Produksjon av luft- og romfartøyer

- fortsetter neste side -

<sup>1</sup> Akkrediteringen er gitt i henhold til den angitte utgaven av den respektive standarden, men gjelder også for utgaver som er utgitt senere, eventuelt etter datering av dette dokumentet.

15.12.1998  
Dato

avdelingsdirektør

NA-S7an Utgave, dato: 19.02.96



Akkrediteringsdokument  
Akkreditering nr. S002  
Fortegnelse over akkrediteringens omfang

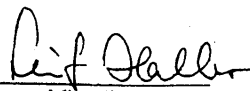
Side 3 av 3

Fortsettelse:

22	DM35.2	Produksjon og reparasjon av lokomotiver og annet rullende materiell til jernbane og sporvei
	DM35.4	Produksjon av motorsykler og sykler
	DM35.5	Produksjon av transportmidler ellers
23	DN36.1	Produksjon av møbler
28		Bygg- og anleggsvirksomhet
29		Engros- og detaljhandel, reparasjon av motorkjøretøyer
31	I60.2	Annen landtransport
	I63.3	Reisebyrå-, turistkontor-, og reisearrangørvirksomhet
	I63.4	Annen transportformidling
33		Databehandlingsvirksomhet
34	K74.2	Arkitektvirksomhet og teknisk konsulentvirksomhet

15.12.1998

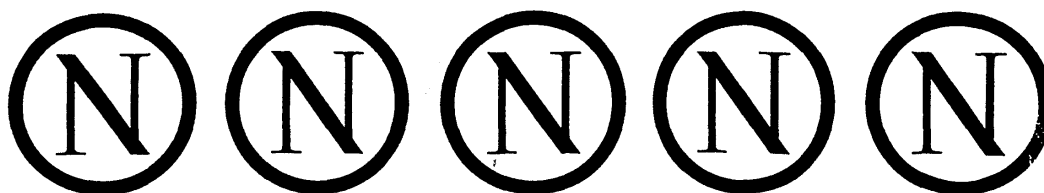
Dato

  
avdelingsdirektør

NA-S79n Utgave, dato: 19.02.96

ANNEX C

**Nemko** N merke original



**Nemko** Profile ..... 1.04

**Nemko** logo

Colour: Pantone 281 cv



**Nemko** name mark

The Nemko name mark  
must be used in connection  
with the logo.

**Nemko**

ANNEX D



F32201 Page 1(2)

**CURRICULUM VITAE**  
(Up-dated per April 1995)

**NAME:** Hoel, Rolf

**DATE OF BIRTH.:** 19 December 1945

**NATIONALITY:** Norwegian

**MOTHER TONGUE:** Norwegian

**OTHER LANGUAGES:** English and German

**PRESENT TITLE AND POSITION:** Principal Engineer, NEMKO  
Head of Section for Ex-equipment

**EDUCATION, FORMAL:**

1962 Basic

1968 Engineer (Electronics)  
Vinius Olsen's College of Engineering

**EXPERIENCE:**

1969 Viking Elektro Industri A/S, Oslo:  
7 months as Electrical Engineer,  
- responsible for repair and maintenance of telex-, telefax-  
and telephoto equipment in news agencies.

1969-  
1969-1985 NEMKO, Oslo:  
Laboratory Engineer,  
- testing of various electrical equipment.

1985-1988 Deputy Senior Engineer,  
- testing of electrical equipment for use in hazardous areas.

1988-1990 Senior Engineer,  
- head of laboratory for testing of electrical equipment for  
use in hazardous areas.

1990- Appointed as Principal Engineer,  
- head of laboratory for testing of electrical equipment for  
use in hazardous areas.

NEMKO is an independent group of certification bodies for technical products and systems - an institution with legal responsibility.  
NEMKO is an independent testing and certification body and a competence centre for technical safety and reliability - a not-for-profit foundation.

NEMKO  
P.O. Box 173

Postadresse Postal address	Kontoradresse Office address	Telefon Telephone	Telefax	Postboks Post account	Bankkonto Bank account
P.O. BOX 173 BLINDERN	Oslo 1	Nr 22 96 05 31	Nr 22 09 06 36	1996 511093	1996 511093
N-0404 OSLO, NORWAY	OSLO 1	tel +47 22 96 05 30	fax +47 22 09 06 36	1996 511093	1996 511093




P32201 Page 2(2)

**CURRICULUM VITAE**  
(Up-dated per April 1995)

**COURESES AND CONFERENCES:**

- 1968 Maintenance and repair of telex, telefax and telephoto equipment at Muirhead Ltd. in London, GB.
- 1970 Semiconductor theory at Oslo Tekniske Skole (Oslo College of Engineering), 45 hours.
- 1986 Stay for purposes of study within the Ex-field at Physicalische Technische Bundesanstalt in Braunschweig, W. Germany.
- 1986 Repair and overhaul of electrical apparatus for use in potentially explosive atmospheres. AEMT, London, GB.
- 1986 Electrical installations in Ex-areas. ENTER A.S., Norway.
- 1987 Safety of electrical equipment in explosive atmospheres at Sira Ltd., Chrislehurst, GB.
- 1988 Participated on Fourth International Conference on Electrical Safety in Hazardous Areas, in London, GB.
- 1989 Repair and overhaul of electrical motores for use in potentially explosive atmospheres at Loher GmbH., Ruhstorf, W. Germany.
- 1994 Member of HOTL (Head of Test Laboratories).
- 1995 Basic course in Ms-Word for Windows 6.0

Oslo, 1995-04-04

  
Rolf Hoel

NEMKO er et frittstående prøve- og sertifiseringsorgan og et kompetansesenter for teknisk sikkerhet og pålitelighet - en stiftelse uten fortjenestemotiv.  
NEMKO is an independent testing- and certification body and a competence centre for technical safety and reliability - a not-for-profit foundation.

NEMKO





P32203 Page 1(2)

**CURRICULUM VITAE**  
(Up-dated per April 1995)

NAME: Hortman, Arne Willy

DATE OF BIRTH: 13 April 1955

NATIONALITY: Norwegian

MOTHER TONGUE: Norwegian

OTHER LANGUAGES: English, some German and French

PRESENT TITLE AND POSITION: Electrical, Engineer, NEMKO  
Section for Ex-equipment

**EDUCATION, FORMAL:**

1975 Basic incl. High School - A level science

1978 Engineer (Electrotechnical)  
Østfold College of Engineering

1979 Engineer (Computer assisted process control)  
Østfold College of Engineering

**EXPERIENCE:**

1979 Employed at NEMKO from 1 august 1979  
Laboratory engineer

- testing of various electrical equipment.
- development of soft ware for computer assisted testing of cables.

1986 - testing of electrical equipment for use in hazardous areas.

1988 Deputy Senior Engineer

- testing of electrical equipment for use in hazardous areas.

1992 - Senior Engineer

- testing of electrical equipment for use in hazardous areas.

NEMKO er et frittstående prøve- og sertifiseringsorgan og et kompetansesenter for teknisk sikkerhet og pålitelighet - en stiftelse uten fortjenestemotiv.  
*NEMKO is an independent testing- and certification body and a competence centre for technical safety and reliability - a not-for-profit foundation.*

NEMKO



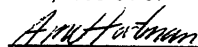
P32203 Page 2(2)

**CURRICULUM VITAE**  
**(Up-dated per April 1995)**

**COURSES AND CONFERENCES:**

- |      |  |
|------|--|
| 1979 | Pascal programming of computers.   |
| 1986 | Electrical installations in Ex-areas.<br>ENTER A/S Norway, 3 days.   |
| 1987 | Safety of electrical equipment in explosive atmospheres at<br>SIRA Ltd., Christchurch, GB, 3 days.   |
| 1988 | <ul style="list-style-type: none"><li>- Computer controlled measuring instruments<br/>NIF, Oslo, 3 days.</li><li>- Two day advanced seminar on the selection, design and use of<br/>intrinsically safe instrumentation for use in potentially flameable<br/>atmospheres as Measurement Technology Ltd.</li><li>- Stay for purposes of study within the Ex-field at Physikalische<br/>Technische Bundesanstalt in Braunschweig, W. Germany.</li></ul> |
| 1989 | <ul style="list-style-type: none"><li>- Course in working environment, 40 hours, Oslo, AOF</li><li>- Introduction to Quality Assurance.</li></ul>  |
| 1990 | Basic safety training for duty on installations offshore and board<br>ships, 80 hours.   |
| 1992 | Stay for purposes of study within the Ex-field at<br>SIRA Ltd. in Chester and London, 3 days.  |
| 1994 | Ms-Excel-4.0 Grunnkurs 2 dager   |
| 1994 | Tysk kurs 1  |
| 1994 | Tysk kurs 2  |
| 1995 | Ms-Word 6.0 Grunnkurs 2 dager  |

Oslo, 1995-04-07

  
Arne Willy Hortman

NEMKO er et frittstående prøv- og sertifiseringsorgan og et kompetansesenter for teknisk sikkerhet og pålitelighet - en stiftelse uten fortjenestemotiv.  
NEMKO is an independent testing- and certification body and a competence centre for technical safety and reliability - a not-for-profit foundation.

NEMKO

032205

Page 1 (2)

NAME: Nilsen, Rolf Normann  
DATE OF BIRTH: 7. April 1937  
NATIONALITY: Norwegian.  
MOTHER TONGUE: Norwegian.  
OTHER LANGUAGES: English, (German spoken)  
PRESENT TITLE: Senior Certification Engineer  
AND POSITION: Certification Engineer for Ex-equipment.

EDUCATION, FORMAL:

1953 Basic  
1954 Bautz & Hauge Commercial School.  
1956 Tønsberg Navigational School, Wireless Operator  
1963 GTI, Gøteborg, Engineer Electro.

EXPERIANCE:

1956-1962 Wireless Officer in the Norwegian mercantile marine.  
1964 NEMKO, Oslo  
- testing of various electrical equipment.  
1971-1979 Deputy Senior Engineer.  
- testing of various electrical equipment  
1980-1987 Senior Engineer  
- head of NEMKO Service office  
- information internationaly concerning technical questions,  
NEMKO routines and national mandatory control.  
1988-1995 Deputy Chief of Information  
- information internationaly concerning national routines, national  
mandatory control and periodical NEMKO informations.  
1995 Nov. Senior Engineer  
- testing Ex-equipment

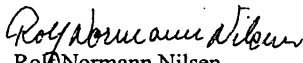
P32205

Page 2(2)

COURCES:

1972-1975	NTNFs up-grading for laboratory personnel.
1977	BI, 4 months elementary EDB and programming Basic
1981-1982	Oslo University, Examination in Law, first graduate.
1988	3M, Layout and Typography, Desktop Publishing, PageMaker.
1991	Merkantildata, WP - basic.
1992-93-94	Oslo Business English School, "Brush up your English".
1994	Information Mapping Europe, Oslo, Develop routine description, instruction manuals and documentations.
1995	Ever Learn AS, Oslo, MS Word for Windows 6.0 Basic
1996	Trainor AS, Tønsberg, Ex-basic

Oslo, 1996-03-21

  
Rolf Normann Nilsen



P32206 Page 1(2)

**CURRICULUM VITAE**  
(Up-dated per April 1995)

NAME: Midmoen, Geir  
DATE OF BIRTH: 27 Sept. 1955  
NATIONALITY: Norwegian  
MOTHER TONGUE: Norwegian  
OTHER LANGUAGES: English and German  
PRESENT TITLE AND POSITION: Senior Engineer, NEMKO  
Section for Ex-equipment

**EDUCATION, FORMAL:**

1977 Basic incl. High School - A level science  
1981 Employed at NEMKO from 3 August 1981  
Electrical Engineer  
- testing of various electrical equipment.  
1984 - testing of electrical equipment for use in hazardous areas.  
1992 Senior Engineer  
- testing of electrical equipment for use in hazardous areas.

**COURSES AND CONFERENCES:**

1985 Safety of electrical equipment in potentially explosive  
atmospheres course of Sira Ltd., Chester, GB.  
1986 Installations and maintenance of Ex-plants course at  
ENTER A/S Norway.  
Repair and overhaul of electrical apparatus for use in  
potentially explosive atmospheres course AEMT,  
London, GB.

NEMKO er et frittstående prøve- og sertifiseringsorgan og et kompetansesenter for teknisk sikkerhet og pålitelighet - en stiftelse uten tjenestemotiv.  
NEMKO is an independent testing- and certification body and a competence centre for technical safety and reliability - a not-for-profit foundation.

NEMKO



P32206 Page 2(2)

**CURRICULUM VITAE**  
(Up-dated per April 1995)

1987	EEx-motor's course at Siemens Norway.
1989	2 weeks fundamental safety- and preparedness course for ship and offshore at Sørlandets Sjøaspirantskole, Norway.
1989	Design and use of intrinsically safe instrumentation for use in potentially flammable atmospheres course at Measurement Technology Ltd., England.
1993	2 days training course in Lab Windows.
1993	1 day basic course in Windows.
1993	60 hours course in English "Meetings in English".
1994	48 hours course in English "Getting Around".
1994	2 days course in Ms-Excel 4.0.
1995	2 days course in Ms-Word for Windows 6.0.

Oslo, 1995-04-07

  
Geir Midtmoen

p3k/rb/arb-hand bok

NEMKO er et frittstående prøve- og sertifiseringsorgan og et kompetansesenter for teknisk sikkerhet og pålitelighet - en stiftelse uten fortjenestemotiv.  
NEMKO is an independent testing- and certification body and a competence centre for technical safety and reliability - a not-for-profit foundation.



P32207 Page 1(2)

**CURRICULUM VITAE**  
**Updated per July 1997**

NAME: Yggeseth, Øistein  
DATE OF BIRTH: 19. March 1942  
NATIONALITY: Norwegian  
MOTHER TONGUE: Norwegian  
OTHER LANGUAGES: English and German  
PRESENT TITLE AND POSITION: Senior Engineer, Nemko AS  
Section for Explosion Protected Electrical Apparatus

**EDUCATION, FORMAL:**

1959 Basic  
1966 Engineer (Electrotechnical)  
1969 Engineer (Electronics)

**EXPERIENCE:**

1959-1965 NEMKO, Trainee  
1965-1973 NEMKO, Testing Engineer,  
- testing of various electrical equipment.  
1973-1983 NEMKO, Deputy Senior Engineer  
- testing of electrical equipment for use in hazardous areas.  
- testing of electrical regulators.  
1983-1988 NEMKO, Senior Engineer,  
- head of laboratory for testing of electrical equipment for use in hazardous areas.  
1988-1997 NEMKO, Senior Engineer,  
- responsible for data network administration  
1997- NEMKO, Senior Engineer,  
- Factory surveillance inspector, visiting Norwegian manufacturers of electrical equipment regularly.  
- Authorization of repair shops for Ex-equipment, entailing initial assessments and yearly audits at onshore/offshore workshops

*Nemko AS is an independent testing and certification laboratory offering services world wide from our offices/subsidiaries in Norway, Germany, Italy, USA and Taiwan.*

Postal address:  
P.O.Box 73 Blindern  
N-0314 OSLO, NORWAY

Office address:  
Gaustadalléen 30  
0371 OSLO

Telephone:  
+47 22 96 03 30  
Fax:

Enterprise number:  
NO 974404532



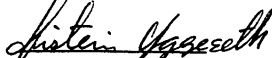
P32207 Page 2(2)

**CURRICULUM VITAE**  
**Updated per July 1997**

**COURSES AND  
CONFERENCES:**

1971	Semiconductors, part 1
1971	Semiconductors, part 2
1972	Semiconductors, part 3
1975	Electrical installations in hazardous areas, chemical process industry.
1975	Elektrical installations on board tankers for gas, chemicals and oil.
1977	Technische Akademie, Esslingen. Conference Ex-equipment.
1982	Hazardous area electronics and intric safety.
1987	Personal Efficiency and Planning (PM International)
1988	System Manager HP3000
1988	HP. Datacommunication
1989	TBK Meridian SL-1 Management Part 1
1990	TBK Meridian SL-1 Management Part 2
1990	HP. UNIX Network Administration
1990	Oracle Database Adm. V6
1990	Oracle V6. Installation and management under UNIX
1990	Oracle. SQL Plus Basics.
1992	HP. System Administration HP9000 s600/800
1993	TBK Meridian SL-1 Management. Supplement.
1993	TC-DataSoft: Introduction to Speedware 6.0
1997	DNV. Revision of Quality Systems

Oslo 1997-07-09

  
Øistein Yggeseth

*Nemko AS is an independent testing and certification laboratory offering services world wide from our offices/subsidiaries in Norway, Germany, Italy, USA and Taiwan.*

Postal address:  
P.O.Box 73 Blindern  
N-0314 OSLO, NORWAY

Office address:  
Gaustadalléen 30  
0371 OSLO

Telephone:  
+47 22 96 03 30  
Fax:

Enterprise number:  
NO 974404532



NAME: Håkonsen Håkon S.

DATE OF BIRTH: 25 May 1956

NATIONALITY: Norwegian

MOTHER TONGUE: Norwegian

OTHER LANGUAGES: English

PRESENT TITLE AND POSITION: Senior Certification Engineer  
Section for Ex-equipment

**EDUCATION FORMAL:**

1983 Basic, incl. High School, A-level science.

1985 Engineer ( Electrotechnical)  
Oslo College of Engineering

**EXPERIENCE:**

1986 to 1994 10. March 1986  
Employed at NEMKO  
Laboratory Engineer at Section for Installation Materials

1995 to 1997 1. January 1995  
Senior Certification Engineer  
Responsible for Standards and testing.  
Section for Installation Materials

1997 1. September  
Senior Certification Engineer  
Section for Ex-equipment

**COURSES AND CONFERENCES:**

1987 Nemko's EDB system and practical use of it

1987 General introduction in use of PC (incl. Ms-Dos) HP 150 - Nemko - 16 Hours

1989 Introduction to Quality Assurance - Nemko - 7 hours

1991 Survival English - NSI - 20 hours

1993 QA Stage III - Quality Control - DNV - 3 days

1994 Ms-Excel 4.0 - Everlearn A/S - 2 days

1995 Ms-Word for Windows 6.0 basic - Everlearn AS - 2 days

1997 Business English - Oslo Business English School - 24 hours

Nemko 16/12-97  
*Håkon S. Håkonsen*

*P 32204 page 1(1)*



**CV**

Page 1 of 1

**NAME:** Tore Irjall

**DATE OF BIRTH:** 02 july 1960

**NATIONALITY:** Norwegian

**MOTHER TONGUE:** Norwegian

**OTHER LANGUAGES:** English

**PRESENT TITLE AND POSITION** Certification Engineer  
Section for Ex-equipment

**EDUCATION FORMAL:**

1982 Certificate of apprenticeship( Electrotechnical)

1985 Technical college  
Oslo Technical College

1986 Engineer ( Electrotechnical)  
Tønsberg Maritime College of Engineering

**EXPERIENCE:**

1987 to 1991 10. january 1987  
Employed at NEMKO  
Laboratory Engineer at Section for Installation Materials

1991 to 1999 1. January 1991  
Certification Engineer  
Section for Lighting equipment

1999 1. March  
Certification Engineer  
Section for Ex-equipment

**COURSES AND CONFERENCES:**

1987 Nemko's EDB system and practical use of it

1987 General introduction in use of PC (incl. Ms-Dos) HP 150 - Nemko - 16 Hours

1993 Meetings in English - Oslo Business English School - 40 Hours

1994 Getting Around in English - Oslo Business English School - 48 Hours

1995 Ms-Word for Windows 6.0 - Everlearn AS - 2 days

1997 Business English - Oslo Business English School - 24 Hours

1997 Quality Assurance in laboratories- NITO - 2 days

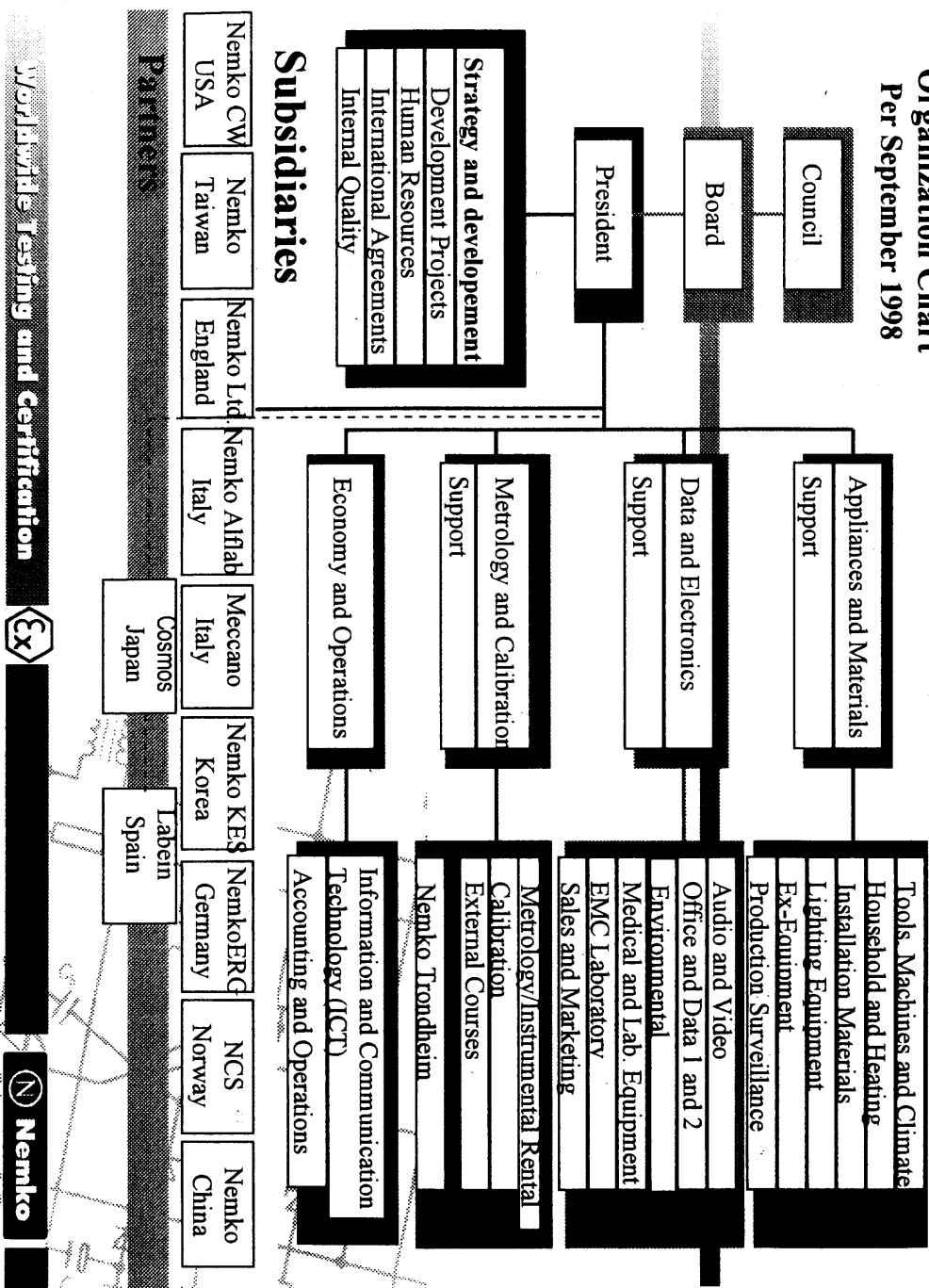
1998 Introduction to Vibration Testing - 2 days

Nemko 1999-03-16

*Tore Irjall*  
Tore Irjall

ANNEX E

## Organization Chart Per September 1998



ANNEX F



Page 1 of 2

## ACCREDITATION DOCUMENT

**Accreditation number S016**

**Nemko AS**  
**Postbox 73 Blindern**  
**0314 OSLO, NORWAY**

The accreditation includes certification of products  
within the scope specified on the following pages of this document.

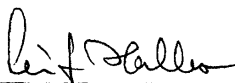
Accreditation in accordance with EN 45011 (ISO/IEC Guide 65) is granted  
with the reference to Parliamentary Proposition no 106 (1989/90) and Norwegian  
Accreditation's statutes laid down in Royal Decree of 7th October 1993.

The accreditation is subject to regular surveillance and is valid until 17. December 2004.

The accreditation decision implies that Norwegian Accreditation has found that the body  
complies with the requirements for accredited activity within the scope of accreditation.  
The certification body is itself responsible for certifications performed.

NORWEGIAN METROLOGY AND ACCREDITATION SERVICE

March 01, 2001  
Date

  
Director

The geographic unit:

Nemko AS  
Gaustadalléen 30, Blindern  
0314 OSLO

**Section DE 14 Office and Data / Audio and Video Equipment**  
Is accredited for certification of products in accordance with the following standard<sup>1</sup>:

Standard no and issue date	Description
EN 60 065(1993)+A11/ IEC 60065 + A1, A2 and A3	Electronic apparatus. (Clause 18, Implosion test of picture tubes is not included in the accreditation.)
EN 60 950(1992) + A1, A2, A3, A4 and A11/ IEC 60950 + A1, A2, A3 and A4	Office and Data Equipment. (Annex A3. "High current arching test" is not included in the accreditation.)

**Section AM32 Ex Protected equipment**

Is accredited for certification of products in accordance with the following standards<sup>1</sup>:

Standard no and issue date	Description
Electrical apparatus for potentially explosive atmosphere. (The accreditation includes Group II apparatus)	
EN 50014, 2. Ed.(1992) Alternatively EN 50014, 3. Ed.(1997)	Electrical apparatus for potentially explosive atmospheres – General requirements (Sub-clause 23.4.7.5 is not included in the accreditation / P32301)
EN 50016, 2. Ed.(1995)	Electrical apparatus for potentially explosive atmospheres – Pressurized apparatus "p"
EN 50018, 2. Ed.(1994)	Electrical apparatus for potentially explosive atmospheres – Flameproof enclosure "d"
EN50019, 2. Ed.(1994)	Electrical apparatus for potentially explosive atmospheres – Increased safety "e" (Sub-clause 6.6.2 is not included in the accreditation /P32304)
EN 50020, 2. Ed.(1994)	Electrical apparatus for potentially explosive atmospheres – Intrinsic safety "i"
EN 50028, (1998)	Electrical apparatus for potentially explosive atmospheres – Encapsulation "m"
EN 50039 (1982)	Electrical apparatus for potentially explosive atmospheres – Intrinsically safe electrical systems "i"

<sup>1</sup> Accreditation is granted according to the stated edition of the standard, but will also be valid for later editions, also those issued after the dating of this document.

March 01, 2001

