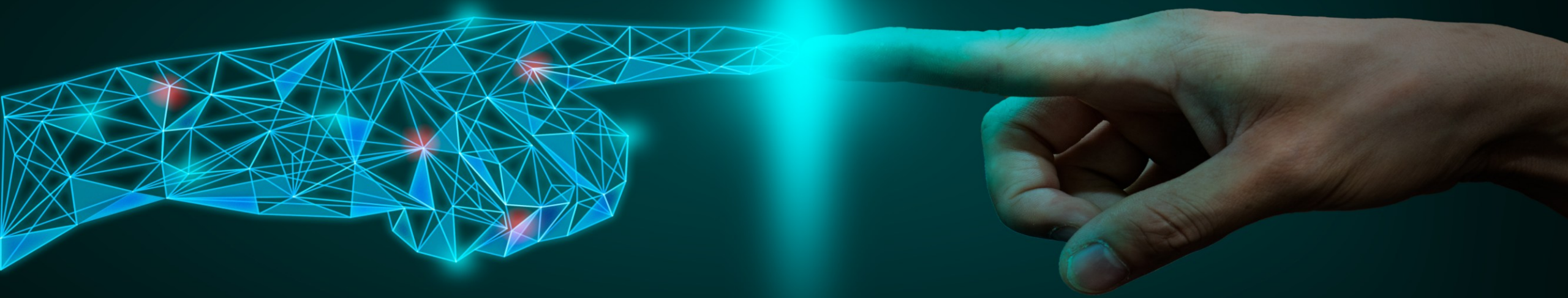




Endringer i EN ISO 9712:2022

Sertifisering av NDT-personell



Endringer:

- ✓ Synstest
- ✓ Krav til kurs
- ✓ Krav til praksis
- ✓ Eksamensomfang
- ✓ Antall objekter
- ✓ Teknikker

Hovedendringene:

- ✓ 10 års resertifisering
- ✓ Arbeidsgivers ansvar for dokumentering
- ✓ 5 års fornyelse

VISION REQUIREMENTS – ALL LEVEL



7.4.1 General

Candidates and certificate holders shall maintain and provide documentary evidence of acceptable vision in accordance [7.4.2](#) to [7.4.4](#).

7.4.2 Near vision acuity

Prior to certification, and annually thereafter, near vision acuity shall be verified to be in accordance with the requirements of [ISO 18490](#) or shall permit reading a minimum of Jaeger number 1 or Times Roman N4.5 or equivalent letters at not less than 30 cm with one or both eyes, either corrected or uncorrected.

7.4.3 Colour vision

Prior to certification, recertification or renewal, the candidate/certificate holder shall demonstrate that a colour vision test has been administered within the previous 5 calendar years.

It is required that colour vision and/or grey scale perception be sufficient for the individual to be able to distinguish and differentiate between the colours or shades of grey used in the NDT methods/techniques concerned as specified by the employer.

The colour vision test shall either confirm that the individual has acceptable colour vision without restriction or shall state any limitation(s) on colour perception.

Where any limitation in colour perception exists, the employer shall confirm whether or not this condition results in any limitation(s) to method or application specific techniques.

NOTE — The Ishihara 24 plate test is an example of a suitable colour vision test.

7.4.4 Personnel administering vision tests

Near vision acuity testing, colour vision and/or grey scale perception verification(s) shall be administered by a licensed physician, nurse, ophthalmologist or optometrist; or by another trained professional who is approved and documented by a Level 3 personnel acting on behalf of the employer.

KRAV TIL KURS



Table 2 — Minimum training requirements

NDT method	Level 1 days ^a	Level 2 days ^a	Level 3 days ^a
AT	5	8	5
ET	5	6	6
LT	5	9	6
MT	3	2	4
PT	3	2	3
RT ^b	5	10	5
ST	2	3	2
TT	5	6	5
UT	8	10	5
VT	3	2	3

^a One day duration is at least seven hours, which can be achieved on a single day or by accumulating hours.

^b For RT, training days does not include radiation safety training.

NOTE 1 In the case of specific techniques, see [Annex E](#).

KRAV TIL PRAKSIS

Table 3 — Minimum industrial experience

NDT method	Level 1	Experience in days ^a				
		Level 2		higher education, with Level 2	Level 3	
		with Level 1	direct access			Level 2
AT, ET, LT, RT, UT, TT	45	135	180	270	450	540
MT, PT, ST, VT	15	45	60	180	240	360

^a One day duration is at least seven hours, which can be achieved on a single day or by accumulating hours. The maximum allowable hours in any one days is 12 hours. Experience in days is achieved by dividing the total accumulated hours by 7.

7.3.3.2 A certified Level 1, 2 or 3 adding an additional method may be permitted a reduction of required experience of **25 % for that additional method.**

EKSAMENSOMFANG

8.2.1 General examination element

The general examination element shall be a minimum of 40 multiple choice examination questions and shall be selected randomly from the certification body's or authorized qualification body's collection of general examination element questions valid at the date of examination.

8.5.3 A candidate failing two re-examinations on one or more elements shall complete further training, acceptable to the certification body, and be required to retake all examination elements.

8.6 Supplementary examinations

8.6.1 A certified Level 1 or Level 2 individual changing sectors or adding another sector for the same NDT method shall be required to take sector specific and practical examination elements for the new sector. Level 2 shall also be required to write the NDT instruction for the new sector.

ANTALL OBJEKTER

d) For a **product sector** related practical examination elements:

Candidates shall be required to test a minimum of **two specimens** and for **multiple product sectors**, a **minimum of one from each product sector**.

e) For an **industrial sector** related practical examination elements:

Candidates shall be required to **test at least two specimens**, representative of products typically tested in the industrial sector.

f) For **RT candidates**:

Level 1 and Level 2 candidates shall radiograph at **least two specimens**. Level 2 candidates, already certified as Level 1, shall radiograph at least one specimen.

In **addition** to taking radiographs, **Level 2 candidates shall interpret a set of at least 10 film images or 10 digital radiographic images**. This set shall be considered as one specimen.

TEKNIKKER

Table F.3 — Ultrasonic testing (UT) techniques additional training requirements

Technique	Abbreviated term	Training requirements (days)		
		Level 1	Level 2	Level 3
UT (as per Table 2)		8	10	5
Time of flight	UT-TOFD	5	5	N/A
Phased array	UT- PA	5	5	N/A

Table F.4 — Ultrasonic testing (UT) techniques additional prerequisites

Technique	Level 1	Level 2	Level 3
UT - TOFD	UT 1	UT 2	N/A
UT - PA	UT 1	UT 2	N/A

NOTE The level stated in the table is the minimum acceptable level of certification. A Level 3 certificate holder satisfies this requirement.

Table F.6 — Additional training requirements for RT-F to RT-D

Method	Technique	Abbreviated term	Level 1	Level 2	Level 3
RT	Digital radiography	RT-D	3 days	5 days	3 days



ARBEIDSGIVERS ANSVAR

5.5 Employer

5.5.1 The employer shall document the personal information which shall include the declaration of education, training and industrial experience and visual acuity needed to determine the eligibility of the candidate. If the candidate is self-employed, the industrial experience shall be attested to by a referee.

Note All documentation obtained from the employer is to be verified by the Certification Body.

5.5.2 In respect of certified NDT personnel under their control the employer shall be responsible for:

- a) all that concerns the authorization to operate, i.e. providing job-specific training (if necessary);
- b) issuing the written authorization to operate;
- c) the results of NDT activities;
- d) ensuring that the annual vision requirements of [section 7.4](#) are met;
- e) maintaining documentary evidence confirming the continuous application of the NDT method in the relevant sector(s) without significant interruption. This action shall be done every 12 months;
- f) ensuring that personnel hold valid certification relevant to their tasks within the organization;
- g) maintaining appropriate records.

These responsibilities shall be described in a documented procedure.

5.5.3 A self-employed individual shall assume all responsibilities ascribed to the employer.

DOC GEN 010 EDITION 7



5. Renewal and recertification

5.1 Continued satisfactory work experience

At renewal and recertification the candidate is required to provide verifiable documentary evidence of continued satisfactory work activity in the method for which certificate renewal is sought.

Amount of continued work without significant interruption is considered to be 2 method related activities each 3 months. Periods of 3 months without activities shall not exceed 4 consecutive nor 8 aggregated in 5 years.

AKTIVITET	POENG	MAKS PR ÅR	MAX PR. 5 ÅR
Performance of a method	2 poeng pr. dag	25 poeng	95 poeng
Cross check	2 poeng pr. dag		
Site test	2 poeng pr. dag		
Calibration of apparatus	1 poeng		
Theoretical training	1 poeng	5 poeng	15 poeng
Practical training	2 poeng pr. dag	10 poeng	25 poeng
Participation in research or engineering of NDT	1 poeng pr. uke	15 poeng	60 poeng
Participation to a technical seminar/paper	1 poeng pr. dag	2 poeng	10 poeng
Presenting a technical seminar/paper	1 poeng pr. presentasjon	3 poeng	15 poeng
Membership in a NDT/NDT related society	1 poeng pr. medlemskap	2 poeng	5 poeng
Mentoring of NDT personnel/trainee	2 poeng pr. lærling	10 poeng	30/40 poeng
Participation standardization committees	1 poeng pr. komité	3/4 poeng	15/20 poeng

HVA ER VERIFISERBART DOKUMENTERT BEVIS FOR KONTINUERLIG ARBEID?

- ✓ Et dokument som er sporbart
 - En rapport
 - En bekreftelse fra en 3.part
 - En bekreftelse fra en inspektør / N3 / ansvarlig person

HVA SKAL EN BEKREFTELSE INNEHOLDE?

- ✓ Dato
- ✓ Metode
- ✓ Kunde
- ✓ Prosjektnummer / NDT rapportnummer / sveisenummer



5 ÅRS FORNYELSE

10 Renewal

10.1 Prior to the completion of the period of validity following certification and recertification, certification shall be renewed by the certification body for a new period of validity on production of of:

- a) documentary evidence of a **satisfactory near vision acuity** examination taken within the preceding 12 months; and
- b) documentary evidence of a satisfactory **colour vision** and/or grey scale perception examination taken within the preceding 60 months; and
- c) **verifiable documentary evidence of continued satisfactory work activity** without significant interruption in the **method and sector** for which certificate renewal is sought;

and either:

- d) **successful completion of a practical examination element** in accordance with [11.2.2](#) except that it shall consist of a **minimum of 50 % of the examination specimens required by [11.2.2](#)**; or
- e) **successfully meeting the requirements of the structured credit system** as given in [10.2](#) and [Annex C](#).

If the criterion c) for renewal is not met, the individual **shall complete the practical examination elements** required by [11.2.2](#).

10.5 Certificate holders at Level 1 and Level 2 **not meeting the requirements for renewal shall fulfil the requirements for recertification as specified in [11.2.2](#)**. Certificate holders at Level 3 not meeting the



5 ÅRS FORNYELSE

10.2 Where a candidate elects to use the structured credit system, they shall provide evidence to the certification body to demonstrate achievement of a minimum of 100 points in the 5 year renewal period based on the requirements of [Table C.1](#).

10.2.1 For candidates seeking renewal of Level 1 certificates, a minimum of 75 of the 100 points is required for any combination of activities listed in part A of [Table C.1](#).

10.2.2 For candidates seeking renewal of Level 2 or 3 certificates, a minimum of 50 of the 100 points is required for any combination of activities listed in part A of [Table C.1](#).

10.3.2 If the renewal application is received prior to or on the date of expiration of the certificate, the renewal date of the new certificate shall be the same as the date of expiration of the certificate (i.e. no interruption in certification). The date of expiration of the new certificate shall be no more than 5 years from the date of expiration of the original certificate.

10.3.3 If the renewal application is received after the date of expiration of the certificate, the renewal date of the new certificate shall be the date on which all requirements for renewal are met. In this case, there shall have been an interruption in the certification period. The date of expiration of the new certificate shall be no more than 5 years from the date of expiration of the original certificate.

10 ÅRS RESERTIFISERING

11.2 Levels 1 and 2

11.2.1 Levels 1 and 2 certificate holders seeking recertification shall provide a confirmation issued by the employer of continued satisfactory work activity without significant interruption in the method and sector for which recertification is sought and satisfy [11.2.2](#).

11.2.2 The individual shall successfully complete the practical examination element which demonstrates continued competence to carry out work within the scope specified on the certificate. This shall include testing specimens (see [Annex B](#)) appropriate to the scope of recertification and in addition, for Level 2, the production of a written instruction suitable for the use of Level 1 personnel (see [8.2.4.1](#)). If the individual

11.2.4 If the criterion in [11.2.1](#) for recertification is not met, the individual shall complete the general, specific and practical examinations required by [11.1](#).

10 ÅRS RESERTIFISERING

11.3 Level 3

11.3.1 Level 3 certificate holders seeking recertification shall provide a confirmation issued by the employer of continued satisfactory work activity without significant interruption in the method and sector for which recertification is sought and:

- a) satisfy the Level 3 requirements of [11.3.3](#) for a written examination; or
- b) meet the requirements for a structured credit system, as given in [11.3.2](#) and [Table C.1](#).

In both cases (written examination or credit system), the individual shall either provide appropriate documented evidence, acceptable to the certification body, of their continued practical competence in the method or pass a Level 2 practical examination, as specified in [11.2.2](#), except for the drafting of NDT instructions.

5 ÅRS FORNYELSE PÅ POENG

Item	Activity	Level 1			Level 2			Level 3		
		Points granted per activity	Maximum number of points per year of activity	Maximum number of points over 5 years of activity	Points granted per activity	Maximum number of points per year of activity	Maximum number of points over 5 years of activity	Points granted per activity	Maximum number of points per year of activity	Maximum number of points over 5 years of activity
	Part A									
1	Performance of NDT Activities ^a	2 / day	25	95	2 / day	25	95	2 / day	25	95
2	Completion of theoretical training in the method	1 / day	5	15	1 / day	5	15	1 / day	5	15
3	Completion of practical training in the method	2 / day	10	25	2 / day	10	25	2 / day	10	25
4	Delivery of practical or theoretical training in NDT in the method considered	N/A	N/A	N/A	1 / day	15	75	1 / day	15	75
5	Participation in research activities in NDT field or for engineering of NDT (see Annex E)	1 / week	15	60	1 / week	15	60	1 / week	15	60
	Part B									
6	Participation to a technical seminar/paper in the field of the method or technique	1 / day	2	10	1 / day	2	10	1 / day	2	10
7	Presenting a technical seminar/paper in the field of the method or technique	1 / presentation	3	15	1 / presentation	3	15	1 / presentation	3	15
8	Current individual membership in NDT or NDT related society	1 / membership	2	5	1 / membership	2	5	1 / membership	2	5
9	Technical oversight and mentoring of NDT personnel/trainee in the relevant method	N/A	N/A	N/A	2 / mentee	10	30	2 / mentee	10	40
10	Participation or convenorship in standardization and technical committees	N/A	N/A	N/A	1 / committee	3	15	1 / committee	4	20
11	Performing a technical NDT role within a certification body	N/A	N/A	N/A	2 / activity	10	30	2 / activity	10	40

