DAkkS
Deutsche
Akkreditierungsstelle

Deutsche Akkreditierungsstelle GmbH

Entrusted according to Section 8 subsection 1 AkkStelleG in connection with Section 1 subsection 1 AkkStelleGBV
Signatory to the Multilateral Agreements of EA, ILAC and IAF for Mutual Recognition

Accreditation

The Deutsche Akkreditierungsstelle GmbH attests that the testing laboratory

TÜV NORD EnSys GmbH & Co. KG
Institut für Materialprüfung, Strahlenschutz und Windlaboratorium

at the locations:

Große Bahnstraße 31, 22525 Hamburg
Am TÜV 1, 30519 Hannover
An den Wurthen 28, 17489 Greifswald

is competent under the terms of DIN EN ISO/IEC 17025:2018 to carry out tests in the following fields:

Structural mechanical tests on metals and their welded joints; metallographic tests, emission spectrometry and material analyses based on RFA (stationary and mobile) and corrosion tests on metals; manual non-destructive testing (radiographic, ultrasonic, magnetic particle, penetration, eddy current, visual and acoustic emission tests) of metallic and non-metallic materials in the metal producing and processing industry as well as in plant engineering and construction; radiological protection analyses; determination of wind potential including evaluation of climatic input parameters at planned wind turbine sites, Carrying out wind measurements using LiDAR, Determination of annual energy production of wind turbines or wind farms, Report on site quality according to EEG 2021

The accreditation certificate shall only apply in connection with the notice of accreditation of 09.04.2021 with the accreditation number D-PL-11124-07. It comprises the cover sheet, the reverse side of the cover sheet and the following annex with a total of 17 pages.

Registration number of the certificate: **D-PL-11124-07-00**

Frankfurt am Main, 09.04.2021	Dipl.-Ing. (FH) Ralf Egner Head of Division	Translation issued: 09.04.2021	Head of Division

The certificate together with the annex reflects the status as indicated by the date of issue.
The current status of any given scope of accreditation may be found respectively in the database of accredited bodies of Deutsche Akkreditierungsstelle GmbH https://www.dakks.de/en/content/accredited-bodies-dakks.

This document is a translation. The definitive version is the original German accreditation certificate.

See notes overleaf.

Deutsche Akkreditierungsstelle GmbH

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Spittelmarkt 10
10117 Berlin

Standort Frankfurt am Main
Europa-Allee 52
60327 Frankfurt am Main

Standort Braunschweig
Bundesallee 100
38116 Braunschweig

The accreditation was granted pursuant to the Act on the Accreditation Body (AkkStelleG) and the Regulation (EC) No 765/2008 of the European Parliament and of the Council setting out the requirements for accreditation and market surveillance relating to the marketing of products. DAkkS is a signatory to the Multilateral Agreements for Mutual Recognition of the European co-operation for Accreditation (EA), International Accreditation Forum (IAF) and International Laboratory Accreditation Co-operation (ILAC). The signatories to these agreements recognise each other's accreditations.

The up-to-date state of membership can be retrieved from the following websites:
EA: www.european-accreditation.org
ILAC: www.ilac.org
IAF: www.iaf.nu

DAkkS Deutsche Akkreditierungsstelle

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-11124-07-00 according to DIN EN ISO/IEC 17025:2018

Valid from: **09.04.2021**

Date of issue: 09.04.2021

Holder of certificate:

TÜV NORD EnSys GmbH & Co. KG
Institut für Materialprüfung, Strahlenschutz und Windlaboratorium

at the locations:

Große Bahnstraße 31, 22525 Hamburg
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Tests in the fields:

Structural mechanical tests on metals and their welded joints; metallographic tests, emission spectrometry and material analyses based on RFA (stationary and mobile) and corrosion tests on metals; manual non-destructive testing (radiographic, ultrasonic, magnetic particle, penetration, eddy current, visual and acoustic emission tests) of metallic and non-metallic materials in the metal producing and processing industry as well as in plant engineering and construction; radiological protection analyses; determination of wind potential including evaluation of climatic input parameters at planned wind turbine sites, Carrying out wind measurements using LiDAR, Determination of annual energy production of wind turbines or wind farms, Report on site quality according to EEG 2021

The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of testing laboratories. Laboratories that conform to the requirements of this standard, operate generally in accordance with the principles of DIN EN ISO 9001.

The certificate together with the annex reflects the status as indicated by the date of issue.
The current status of any given scope of accreditation may be found respectively in the database of accredited bodies of Deutsche Akkreditierungsstelle GmbH https://www.dakks.de/en/content/accredited-bodies-dakks.

Abbreviations used: see last page

Within the scope of accreditation marked with *, the testing laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, to use standards or equivalent testing methods listed here with different issue dates.
The testing laboratory maintains a current list of all testing procedures within the flexible scope of accreditation.

The test methods are carried out at the locations indicated by the following abbreviations:

H = Hannover HH = Hamburg G = Greifswald

1 Mechanical testing

1.1 Tensile testing * H

DIN EN ISO 14273 2016-11	Resistance welding - Destructive testing of welds - Specimen dimensions and procedure for tensile shear testing resistance spot and embossed projection welds
DIN EN ISO 5178 2019-05	Destructive tests on welds in metallic materials - Longitudinal tensile test on weld metal in fusion welded joints
DIN EN ISO 4136 2013-02	Destructive tests on welds in metallic materials - Transverse tensile test
DIN EN ISO 6892-1 2020-06	Metallic materials - Tensile testing - Part 1: Method of test at room temperature (here: M*ethod B*)~~)~~
DIN EN ISO 6892-2 2018-09	Metallic materials - Tensile testing - Part 2: Method of test at elevated temperature (here: *Method B*)
DIN EN 12797 2000-12	Brazing - Destructive tests of brazed joints (here: C*hapter 4-8*)
ASTM A 370a 2019-01	Standard Test Methods and Definitions for Mechanical Testing of Steel Products (here: *Chapter 6-14*)
ASTM E 8 2016-01	Standard Test Methods for Tension Testing of Metallic Materials

ASTM E 21 2017-01	Standard Test Methods for Elevated Temperature Tension Tests of Metallic Materials

1.2 Bending and compression testing * **H**

DIN EN ISO 7438 2018-04	Metallic materials - Bend test
DIN EN ISO 5173 2012-02	Destructive tests on welds in metallic materials - Bend tests
DIN EN ISO 9017 2018-04	Destructive tests on welds in metallic materials - Fracture test
DIN 50106 2016-11	Testing of metallic materials - Compression test at room temperature
ASME Boiler & Pressure Vessel Code Section IX 2019	Qualification Standard for Welding and Brazing Procedures, Welders, Brazers, and Welding and Brazing Operators (hier : *QW-160 Guided-Bend*)

1.3 Notched bar impact testing, impact testing * **H**

DIN EN ISO 14555 2017-10	Welding - Arc stud welding of metallic materials
DIN EN ISO 9016 2013-02	Destructive tests on welds in metallic materials - Impact tests - Test specimen location, notch orientation and examination
DIN EN ISO 148-1 2017-05	Metallic materials - Charpy pendulum impact test - Part 1: Test method
ASTM A 370 2019-01	Standard Test Methods and Definitions for Mechanical Testing of Steel Products (hier*: Abschnitte 20 - 27*)
ASTM A 923 2014-01	Standard Test Methods for Detecting Detrimental Intermetallic Phase in Duplex Austenitic/Ferritic Stainless Steels

1.4 Tube testing *		H
DIN EN ISO 8491 2004-10	Metallic materials - Tube (in full section) - Bend test	
DIN EN ISO 8492 2014-03	Metallic materials - Tube - Flattening test	
DIN EN ISO 8493 2004-10	Metallic materials - Tube - Drift-expanding test	
DIN EN ISO 8494 2014-03	Metallic materials - Tube - Flanging test	
DIN EN ISO 8495 2014-03	Metallic materials - Tube - Ring-expanding test	
DIN EN ISO 8496 2014-03	Metallic materials - Tube - Ring tensile test	

1.5 Fatigue testing / Component testing *		H
DIN 50104 1983-11	Testing of hollow bodies by internal pressure; leak detection up to a certain pressure value; general specifications (here: *Chapter 5*) (*withdrawn standard*)	
DIN 50100 2016-12	Load controlled fatigue testing - Execution and evaluation of cyclic tests at constant load amplitudes on metallic specimens and components	

1.6 Hardness testing *

DIN EN ISO 2639 2003-04	Steels - Determination and verification of the depth of carburized and hardened cases	**HH**
DIN EN ISO 6506-1 2015-02	Metallic materials - Brinell hardness test - Part 1: Test method (here: *HBW 2,5/187,5; HBW 2,5/62,5*)	**H**
DIN EN ISO 6507-1 2018-07	Metallic materials - Vickers hardness test - Part 1: Test method (here: *HV 0,3-HV 10*) (here: *HV 0,3 - HV 30*)	**HH, H**
DIN EN ISO 6508-1 2016-12	Metallic materials - Rockwell hardness test - Part 1: Test method (here: *Scale B and C*)	**H**
DIN EN ISO 9015-1 2011-05	Destructive tests on welds in metallic materials - Hardness testing - Part 1: Hardness test on arc welded joints	**HH, H**
DIN EN ISO 9015-2 2016-10	Destructive tests on welds in metallic materials - Hardness testing - Part 2: Microhardness testing of welded joints	**HH, H**
DIN EN ISO 14271 2018-01	Resistance welding - Vickers hardness testing (low-force and microhardness) of resistance spot, projection, and seam welds	**HH**
DIN EN 10328 2005-04	Iron and steel - Determination of the conventional depth of hardening after surface heating	**HH, H**
DIN 50159-1 2015-01	Metallic materials - Hardness testing with the UCI method - Part 1: Test method	**HH**
DIN 50190-3 1979-03	Hardness depth of heat-treated parts; determination of the effective depth of hardening after nitriding	**HH**
DIN 50190-4 1999-09	Hardness depth of heat-treated parts - Part 4: Determination of the fusion hardening depth and the fusion depth	**HH**

VdTÜV-Merkblatt 1156 [1] 1979-10	Welding procedure test - Deposition welding (hardfacing) (here: *Section 4.3: Hardness test*) *(withdrawn document)*	**HH**

2 Metallographic testing *

ISO 5949 1983-12	Tool steels and bearing steels; Micrographic method for assessing the distribution of carbides using reference photomicrographs	**HH**
ISO 9042 1988-12	Steels; manual point counting method for statistically estimating the volume fraction of a constituent with a point grid	**HH, H**
DIN EN ISO 643 2020-06	Steels - Micrographic determination of the apparent grain size	**HH, H**
DIN EN ISO 945-1 2019-10	Microstructure of cast irons - Part 1: Graphite classification by visual analysis	**HH, H**
DIN EN ISO 8249 2018-11	Welding - Determination of Ferrite Number (FN) in austenitic and duplex ferritic-austenitic Cr-Ni stainless steel weld metals (here: *chapter 8*)	**HH, H**
DIN EN ISO 17639 2013-12	Destructive tests on welds in metallic materials - Macroscopic and microscopic examination of welds	**HH, H**
DIN EN 10247 2017-09	Micrographic examination of the non-metallic inclusion content of steels using standard pictures	**HH, H**
ASTM E 1181 2002-01	Standard Test Methods for Characterizing Duplex Grain Sizes	**HH, H**
ASTM E 1351 2001-01	Standard Practice for Production and Evaluation of Field Metallographic Replicas	**HH**
ASTM E 1382 1997-12	Standard Test Methods for Determining Average Grain Size Using Semiautomatic and Automatic Image Analysis	HH

ASTM A 923 2014-01	Standard Test Methods for Detecting Detrimental Intermetallic Phase in Duplex Austenitic/Ferritic Stainless Steels (here: *Method A*)	H
AVS D 17 / 000 [1] 1981-03	Cladding on nuclear power plant components (here: *Chapter 3.5.3*)	**HH**
AVS D 63/50 [1] 2012-06	Determination of delta ferrite content in ferrite-containing austenitic materials	**HH, H**
DVS 0905-1 [1] 1977-08	Quality assurance of stud welding joints (here: *Section 7.3.4*) *(withdrawn document)*	**HH**
DVS 2922 [1] 2019-07	Inspection of flash, butt and MIAB weld joints (here: *Chapter 6*)	**HH, H**
VdTÜV-Merkblatt 451-83/6 [1] 1983-08	Examination of surface structure in creep-ruptured components according to TRD 508	**HH**
VdTÜV-Merkblatt 1160 [1] 2012-03	Welding procedure test and qualification test of brazers for the preparation of brazed joints and high-temperature brazed joints (here: *Chapter 8.2 and 9.2*)	**HH**
VGB-S-517-00 2014-11	Rating charts for rating the microstructural composition and creep rupture damage of creep-resistant steel for high pressure pipelines and boiler components and their weld connections (here: *Chapter 3 to 9*)	**HH**

3 Corrosion testings *

DIN 50905-1 2009-09	Corrosion of metals - Corrosion testing - Part 1: General guidance (here: *Chapter 7*)	**HH, H**
DIN 50905-4 2018-03	Corrosion of metals - Corrosion testing - Part 4: Performance of chemical corrosion experiments without mechanical stresses in liquids in the laboratory	**HH, H**

DIN EN ISO 3651-1 1998-08	Determination of resistance to intergranular corrosion of stainless steels - Part 1: Austenitic and ferritic-austenitic (duplex) stainless steels - Corrosion test in nitric acid medium by measurement of loss in mass (Huey test)	**HH, H**
DIN EN ISO 3651-2 1998-08	Determination of resistance to intergranular corrosion of stainless steels - Part 2: Ferritic, austenitic and ferritic-austenitic (duplex) stainless steels - Corrosion test in media containing sulfuric acid	**HH, H**
DIN EN ISO 10289 2001-04	Methods for corrosion testing of metallic and other inorganic coatings on metallic substrates - Rating of test specimens and manufactured articles subjected to corrosion tests (here: *Chapter 5*)	**HH, H**
ASTM G 28 2002-01	Standard Test Methods for Detecting Susceptibility to Intergranular Corrosion in Wrought, Nickel-Rich, Chromium-Bearing Alloys	**H**
ASTM G 48 2011-01	Standard Test Methods for Pitting and Crevice Corrosion Resistance of Stainless Steels and Related Alloys by use of Ferritic Chloride Solution (here: *Method A, C and E*)	**HH, H**
SEP 1877 1994-07	Test of the resistance of high-alloy, corrosion-proof materials against intercrystalline corrosion	**HH, H**
DIN 50915 1993-09	Testing the resistance of unalloyed and low alloy steels to intergranular stress corrosion cracking by attack of nitrate medium; welded and unwelded materials	**HH, H**
ASTM A 262 2015-01	Standard Practices for Detecting Susceptibility to Intergranular Attack in Austenitic Stainless Steels	**HH, H**
ASTM A 923 2014-01	Standard Test Methods for Detecting Detrimental Intermetallic Phase in Duplex Austenitic/Ferritic Stainless Steels (here: *Method C*)	**H**

4 Determination of coating thickness *

DIN EN ISO 1463 2004-08	Metall- und Oxidschichten - Schichtdickenmessung - Mikroskopisches Verfahren	**HH, H**
DIN EN ISO 2064 2000-06	Metallische und andere anorganische Schichten - Definitionen und Festlegungen, die die Messung der Schichtdicke betreffen (hier: *Abschnitte 4 und 5*)	**H**

5 Optical Emission Spectrometry (OES) / X-Ray Fluorescence (XRF)

SK-IfM-AA-321-72 Rev. 3 2020-12	Optical emission spectrometry for Fe, Cu, Ni, Al base alloys for stationary use *(analyzed elements according to the scope of the work instruction)*	**HH**
SK-IfM-AA-321-73 Rev. 3 2020-12	X-ray fluorescence analysis for stationary and mobile use *(analyzed elements according to the scope of the work instruction)*	**HH**
SK-IfM-AA-321-82 Rev. 0 2020-12	Optical emission spectrometry for Fe and Ni base alloys for stationary use *(analyzed elements according to the scope of the work instruction)*	**HH, H**
SK-IfM-AA-321-19 Rev. 1 2020-12	Performance of mobile and stationary material analyses using the SPECTROxSORT X-ray fluorescence spectrometer *(analyzed elements according to the scope of the work instruction)*	**H**

6 Manual non-destructive testing

6.1 Radiographic testing (RT) *

DIN EN 12681-1 2018-02	Founding - Radiographic testing - Part 1: Film techniques	**HH, H, G**
DIN EN 12681-2 2018-02	Founding - Radiographic testing - Part 2: Techniques with digital detectors	**HH**

DIN EN ISO 10893-6 2019-06	Non-destructive testing of steel tubes - Part 6: Radiographic testing of the weld seam of welded steel tubes for the detection of imperfections (here: *Chapter 5*)	**HH, H, G**
DIN EN ISO 17636-1 2013-05	Non-destructive testing of welds - Radiographic testing - Part 1: X- and gamma-ray techniques with film	**HH, H, G**
DIN EN ISO 17636-2 2013-05	Non-destructive testing of welds - Radiographic testing - Part 2: X- and gamma-ray techniques with digital detectors	**HH**

6.2 Ultrasonic testing (UT) *

DIN EN ISO 16823 2014-07	Non-destructive testing - Ultrasonic testing - Transmission technique	**HH, H, G**
DIN EN ISO 16826 2014-06	Non-destructive testing - Ultrasonic testing - Examination for discontinuities perpendicular to the surface	**HH, H, G**
DIN EN ISO 17640 2019-02	Non-destructive testing of welds - Ultrasonic testing - Techniques, testing levels, and assessment (here: *Chapter 7-10, Annex A*)	**HH, H, G**
DIN EN 10160 1999-09	Ultrasonic testing of steel flat product of thickness equal to or greater than 6 mm (reflection method)	**HH, H, G**
DIN EN 10228-3 2016-10	Non-destructive testing of steel forgings - Part 3: Ultrasonic testing of ferritic or martensitic steel forgings	**HH, H, G**
DIN EN 10228-4 2016-10	Non-destructive testing of steel forgings - Part 4: Ultrasonic testing of austenitic and austenitic-ferritic stainless steel forgings	**HH, H, G**
DIN EN ISO 10893-10 2011-07	Non-destructive testing of steel tubes - Part 10: Automated full peripheral ultrasonic testing of seamless and welded (except submerged arc-welded) steel tubes for the detection of longitudinal and/or transverse imperfections (here: *Manual testing as a replacement for automated testing*)	**HH, H**

DIN EN 12680-1 2003-06	Founding - Ultrasonic examination - Part 1: Steel castings for general purposes (here: *Chapter 5*)	**HH, H**
DIN EN 12680-2 2003-06	Founding - Ultrasonic examination - Part 2: Steel castings for highly stressed components (here: *Chapter 5*)	**HH, H**
DIN EN 12680-3 2012-02	Founding - Ultrasonic testing - Part 3: Spheroidal graphite cast iron castings (here: *Chapter 5*)	**HH, H**
DIN EN ISO 16809 2020-02	Non-destructive testing - Ultrasonic thickness measurement	**HH, H, G**
DIN EN 10307 2002-03	Non-destructive testing - Ultrasonic testing of austenitic and austenitic-ferritic stainless steels flat products of thickness equal to or greater than 6 mm (reflection method)	**HH, H, G**
DIN EN 10308 2002-03	Non-destructive testing - Ultrasonic testing of steel bars	**HH, H, G**
DIN EN ISO 13588 2019-07	Non-destructive testing of welds - Ultrasonic testing - Use of automated phased array technology	**HH, H**
DIN EN ISO 10863 2011-12	Non-destructive testing of welds - Ultrasonic testing - Use of time-of-flight diffraction technique (TOFD)	**HH, H**
SEP 1915 1994-09	Ultrasonic testing of steel tubes for longitudinal defects *(withdrawn document)*	**HH, H, G**
SEP 1918 1992-01	Ultrasonic testing of steel pipes for transverse defects *(withdrawn document)*	**HH, H, G**
SEP 1919 1977-06	Ultrasonic testing for the detection of laminar imperfections of tubes made of heat-resistant steels *(withdrawn document)*	**HH, H, G**
SEP 1920 1984-12	Ultrasonic testing of rolled semi-finished products on inner material defects	**HH, H, G**

SEP 1921 1984-12	Ultrasonic testing of forgings and forged bar steel from ~ 100 mm diameter or edge to edge length *(withdrawn document)*	**HH, H, G**
SEP 1922 1985-07	Ultrasonic testing of ferritic steel castings *(withdrawn document)*	**HH, H, G**
SEP 1923 2009-02	Ultrasonic testing of forgings with higher requirements, in particular for components in turbines and generator systems	**HH, H, G**
SEP 1924 1989-10	Ultrasonic testing of castings of nodular cast iron *(withdrawn document)*	**HH, H, G**
DKI WP 831 2010-01	Ultrasonic testing of copper and copper alloy plates	**H**

6.3 Magnetic particle testing (MT) * — HH, H, G

DIN EN ISO 10893-5 2011-07	Non-destructive testing of steel tubes - Part 5: Magnetic particle inspection of seamless and welded ferromagnetic steel tubes for the detection of surface imperfections (here: *Chapter 5*)
DIN EN ISO 17638 2017-03	Non-destructive testing of welds - Magnetic particle testing
DIN EN 1369 2013-01	Founding - Magnetic particle testing
DIN EN 10228-1 2016-10	Non-destructive testing of steel forgings - Part 1: Magnetic particle inspection
DIN 25435-2 2014-01	In-service inspections for primary coolant circuit components of light water reactors - Part 2: Magnetic particle and penetrant testing

6.4 Penetrant testing (PT) * — HH, H, G

DIN EN ISO 3452-1 2014-09	Non-destructive testing - Penetrant testing - Part 1: General principles (here: *Chapter 8*)
DIN EN 1371-1 2012-02	Founding - Liquid penetrant testing - Part 1: Sand, gravity die and low pressure die castings
DIN EN 1371-2 2015-04	Founding - Liquid penetrant testing - Part 2: Investment castings
DIN EN 10228-2 2016-10	Non-destructive testing of steel forgings - Part 2: Penetrant testing
DIN 25435-2 2014-01	In-service inspections for primary coolant circuit components of light water reactors - Part 2: Magnetic particle and penetrant testing
DIN EN ISO 10893-4 2011-07	Non-destructive testing of steel tubes - Part 4: Liquid penetrant inspection of seamless and welded steel tubes for the detection of surface imperfections

6.5 Eddy Current testing (ET) * — H

DIN EN ISO 17643 2015-12	Non-destructive testing of welds - Eddy current examination of welds by complex plane analysis
SK-IfM-AA-321-75 [1] Rev. 0 2019-02	Eddy current testing of the surface and near-surface areas of boreholes and welded joints

6.6 Visual testing (VT) * — HH, H, G

DIN EN ISO 17637 2017-04	Non-destructive testing of welds - Visual testing of fusion-welded joints
DIN 25435-4 2014-01	In-service inspections for primary collant circuit components of light water reactors - Part 4: Visual testing

6.7 Acoustic emission testing (AT) * H

DIN EN 14584 2013-07	Non-destructive testing - Acoustic emission testing - Examination of metallic pressure equipment during proof testing - Planar location of AE sources
DIN EN 15495 2008-02	Non destructive testing - Acoustic emission - Examination of metallic pressure equipment during proof testing - Zone location of AE sources
VdTÜV-MB DRBE 369 [1] 2001-05	Acoustic emission testing (SEP) during gas pressure tests on pressure vessels in gas storage facilities
VdTÜV-MB DRBE 373 [1] 2016-02	Inspection concept for the in-service inspection of earth-covered liquid gas containers (here: *§17 BetrSichV, annex 5 Nr. 11 Abs. 4 BetrSichV*)
SK-IfM-AA-321-45 [1] Rev. 0 2019-07	Acoustic emission monitoring during gas pressure testing of pressure vessels

6.8 Cross-procedural standards for non-destructive testing * HH, H, G

SEP 1914 1983-08	Non-destructive testing of melt-welded seams in stainless steel pipes
SEP 1916 1989-12	Non-destructive testing fusion welded ferritic steel pipes
SEP 1917 1994-09	Non-destructive testing of electro-pressure welded ferritic steel tubes
SEP 1925 1980-01	Electromagnetic testing of pipes for leak detection *(withdrawn document)*
DVGW GW 350 2015-06	Welding Joints of Steel Pipelines for Gas and Water Supply - Manufacturing, Testing and Evaluation (here: *Chapter 4.3.3.1-4.3.3.3*)

AD-2000 Data Sheet HP 5/3 Annex 1 2020-12	Non-destructive testing of welded joints - Minimum requirements for non-destructive testing methods (here: *Section 3)*
KTA 3201.1 [1] 2017-11	Components of the Reactor Coolant Pressure Boundary of Light Water Reactors - Part 1: Materials and Product Forms (here: *Annex B and C*)
KTA 3201.3 [1] 2017-11	Components of the Reactor Coolant Pressure Boundary of Light Water Reactors - Part 3: Manufacture (here: *Annex C and E*)
KTA 3211.1 [1] 2017-11	Pressure and activity retaining components of systems outside the primary circuit - Part 1: Materials (here: *Annex D and E*)
KTA 3211.3 [1] 2017-11	Pressure and activity-carrying components of systems outside the primary circuit; Part 3: Manufacture (here: *Annex D and E*)
KTA 3903 [1] 2012-11	Inspection, Testing and Operation of Lifting Equipment in Nuclear Power Plants (here: *Annex B*)
KTA 3905 [1] 2012-11	Load Attaching Points on Loads in Nuclear Power Plants (here: *Annex B*)
DIN 27201-7 2020-06	State of railway vehicles - Basic principles and production technology - Part 7: Non-destructive testing

7 Radiological protection analysis **H, HH**

SK-AA-510-004 Rev. 1 2019-05	Gamma-spectrometric measurement of radioactivity of material and water samples as well as filter (here: *measurements of homogeneous activity distributions*)
SK-AA-510-006 Rev. 1 2019-05	In situ gamma-spectrometric measurement of radioactivity

SK-AA-510-007 Rev. 1 2019-04	Direct measurement of surface contamination of alpha and beta emitters

8 Determination of wind potential including evaluation of climatic input parameters at planned wind turbine sites, Carrying out wind measurements using LiDAR * HH

IEC 61400-1 2019-02	Wind energy generation systems - Part 1: Design requirements
IEC 61400-12-1 2017-03	Wind energy generation systems - Part 12-1: Power performance measurements of electricity producing wind turbines
FGW TR Teil 6 Rev. 11 2020-09	Determination of wind potential and energy yield
SK-WindLab-VA-321-01 [1] Rev. 0 2020-08	Determination of wind potential and energy yield, wind measurements using Remote Sensing, Assessment of site quality

9 Determination of annual energy production of wind turbines and wind farms, Assessment of site quality according EEG 2021 * HH

FGW TR Teil 6 Rev. 11 2020-09	Determination of wind potential and energy yield
SK-WindLab-VA-321-01 [1] Rev. 0 2020-08	Determination of wind potential and energy yield, wind measurements using Remote Sensing, Assessment of site quality

Abbreviations used:

AD HP	Labour community of pressure vessels; Manufacture and inspection
ASTM	American Society for Testing and Materials
ASME	American Society of Mechanical Engineers
AVS	Process specification of Kraftwerksunion (KWU)
DECHEMA	Society for Chemical Engineering and Biotechnology
DIN	German Institute for Standardization
DKI	German Copper Institute
DVGW	German Association of Gas and Water
DVS	German Association for Welding and Allied Processes
EEG	Renewable Energy Law
EN	European Standard
FGW	Fördergesellschaft Windenergie und andere Dezentrale Energien e.V.
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
KTA	Nuclear Safety Standards Committee
SEP	Steel/iron test sheets of Verein Deutscher Eisenhüttenleute
TR	Technical Guideline
VdTÜV	Association of German Technical Inspection Services
VGB	VGB PowerTech e.V. - Verband der Energieanlagen-Betreiber, früher „Vereinigung der Großkesselbesitzer“
SK-AA	working procedure of Department of Radiation Protection
SK-IfM-AA	working procedure of Institute for Materials Testing
SK-WindLab-VA	working procedure of Department Windlaboratorium

[1] is not subject to the scope of flexible accreditation