EA MLA Signatory
Český institut pro akreditaci, o.p.s.
Olšanská 54/3, 130 00 Praha 3

issues

according to section 16 of Act No. 22/1997 Coll., on technical requirements for products, as amended

CERTIFICATE OF ACCREDITATION

No. **660/2023**

ÚJV Řež, a. s.
with registered office Hlavní 130, Řež, 250 68 Husinec,
Company Registration No. 46356088

for the Testing Laboratory No. **1093**
Mechanical and Corrosion Properties Testing Laboratory

Scope of accreditation:

Static fracture toughness tests, dynamic fracture toughness tests, impact bending tests, tensile tests, conventional yield point, bending, fatigue and hardness tests and punch tests to the extent as specified in the appendix to this Certificate.

This Certificate of Accreditation is a proof of Accreditation issued on the basis of assessment of fulfillment of the accreditation criteria in accordance with

ČSN EN ISO/IEC 17025:2018

In its activities performed within the scope and for the period of validity of this Certificate, the Conformity Assessment Body is entitled to refer to this Certificate, provided that the accreditation is not suspended and the Accredited Body meets the specified accreditation requirements in accordance with the relevant regulations applicable to the activity of an accredited Conformity Assessment Body.

The Certificate of Accreditation is valid until: **7. 12. 2028**

Prague: 7. 12. 2023

Český institut pro akreditaci, o.p.s.
NÁRODNÍ AKREDITAČNÍ ORGÁN
– 3 –

Jan Velíšek
Director of the Department
of Testing and Calibration Laboratories
Czech Accreditation Institute

The Appendix is an integral part of
Certificate of Accreditation No. 660/2023 of 07/12/2023

Accredited entity according to ČSN EN ISO/IEC 17025:2018:

ÚJV Řež, a. s.
CAB number 1093, Mechanical and Corrosion Properties Testing Laboratory
Hlavní 130, Řež, 250 68 Husinec

Tests:

Ordinal number[1]	Test procedure / method name	Test procedure / method identification[2]	Subject of the test	Degrees of freedom[3]
1	Static fracture toughness test on the tensile testing machine Instron 1342 with control console 8800	PP 2303 023 ČSN 42 0347:1991; ASTM E813-87; ASTM E1152-87; ASTM E1820-99; ASTM E1820-01; ASTM E1820-08; ASTM E1820-09; ASTM E1820-11; ASTM E1820-13; ASTM E1820-13e1; ASTM E1820-16; ASTM E1820-17a; ASTM E1820-18ae1; ASTM E1820-20b; ASTM E1820-21; ASTM E1820-23; ASTM E1921-97; ASTM E1921-02; ASTM E1921-05; ASTM E1921-08; ASTM E1921-09; ASTM E1921-11; ASTM E1921-12; ASTM E1921-13; ASTM E1921-15; ASTM E1921-17a; ASTM E1921-18; ASTM E1921-19b; ASTM E1921-20; ASTM E1921-21a; ASTM E1921-22a; NTD MCHO IAE 443.56–86; NTD MCHO IAE 443.65–86; ESIS P2-91D; ASTM E399-90; ASTM E399-06; ASTM E399-09e2; ASTM E399-12e3; ASTM E399-17; ASTM E399-20a; ASTM E399-22; ČSN EN ISO 12737:2011; ČSN ISO 12135:2018)	Metallic materials for equipment of nuclear power plant, reactors, piping, metal structures, industrial and marine boilers, steam turbines, machines and equipment for chemical and paper industry	-

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Ordinal number[1]	Test procedure / method name	Test procedure / method identification[2]	Subject of the test	Degrees of freedom[3]
2	Static fracture toughness test on the tensile testing machine Instron 1342 with control console 8800	PP 2303 022 (ČSN 42 0347:1991; ASTM E813-87; ASTM E1152-87; ASTM E1820-99; ASTM E1820-01; ASTM E1820-08; ASTM E1820-09; ASTM E1820-11; ASTM E1820-13; ASTM E1820-13e1; ASTM E1820-16; ASTM E1820-17a; ASTM E1820-18ae1; ASTM E1820-20b; ASTM E1820-21; ASTM E1820-23; ASTM E1921-97; ASTM E1921-02; ASTM E1921-05; ASTM E1921-08; ASTM E1921-09; ASTM E1921-11; ASTM E1921-12; ASTM E1921-13; ASTM E1921-15; ASTM E1921-17a; ASTM E1921-18; ASTM E1921-19b; ASTM E1921-20; ASTM E1921-21a; ASTM E1921-22a; NTD MCHO IAE 443.56–86; NTD MCHO IAE 443.65–86; ESIS P2-91D; ASTM E399-90; ASTM E399-06; ASTM E399-09e2; ASTM E399-12e3; ASTM E399-17; ASTM E399-20a; ASTM E399-22; ČSN EN ISO 12737:2011; ČSN ISO 12135:2018)	Metallic materials for equipment of nuclear power plant, reactors, piping, metal structures, industrial and marine boilers, steam turbines, machines and equipment for chemical and paper industry	-
3	Static fracture toughness test on the tensile	PP 2303 021 (ČSN 42 0347:1991; ASTM E813-87;	Metallic materials for equipment of nuclear power plant, reactors, piping, metal	-

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Ordinal number[1]	Test procedure / method name	Test procedure / method identification[2]	Subject of the test	Degrees of freedom[3]
	testing machine Zwick Z100 with control console testControl II	ASTM E1152-87; ASTM E1820-99; ASTM E1820-01; ASTM E1820-08; ASTM E1820-09; ASTM E1820-11; ASTM E1820-13; ASTM E1820-13e1; ASTM E1820-16; ASTM E1820-17a; ASTM E1820-18ae1; ASTM E1820-20b; ASTM E1820-21; ASTM E1820-23; ASTM E1921-97; ASTM E1921-02; ASTM E1921-05; ASTM E1921-08; ASTM E1921-09; ASTM E1921-11; ASTM E1921-12; ASTM E1921-13; ASTM E1921-15; ASTM E1921-17a; ASTM E1921-18; ASTM E1921-19b; ASTM E1921-20; ASTM E1921-21a; ASTM E1921-22a; NTD MCHO IAE 443.56–86; NTD MCHO IAE 443.65–86; ESIS P2-91D; ASTM E399-90; ASTM E399-06; ASTM E399-09e2; ASTM E399-12e3; ASTM E399-17; ASTM E399-20a; ASTM E399-22; ČSN EN ISO 12737:2011; ČSN ISO 12135:2018)	structures, industrial and marine boilers, steam turbines, machines and equipment for chemical and paper industry	
4	Static fracture toughness test on the tensile testing machine Instron 8802 with control console 8800	PP 2303 024 (ČSN 42 0347:1991; ASTM E813-87; ASTM E1152-87; ASTM E1820-99; ASTM E1820-01;	Metallic materials for equipment of nuclear power plant, reactors, piping, metal structures, industrial and marine boilers, steam turbines, machines and	-

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Ordinal number[1]	Test procedure / method name	Test procedure / method identification[2]	Subject of the test	Degrees of freedom[3]
		ASTM E1820-08; ASTM E1820-09; ASTM E1820-11; ASTM E1820-13; ASTM E1820-13e1; ASTM E1820-16; ASTM E1820-17a; ASTM E820-18ae1; ASTM E1820-20b; ASTM E1820-21; ASTM E1820-23; ASTM E1921-97; ASTM E1921-02; ASTM E1921-05; ASTM E1921-08; ASTM E1921-09; ASTM E1921-11; ASTM E1921-12; ASTM E1921-13; ASTM E1921-15; ASTM E1921-17a; ASTM E1921-18; ASTM E1921-19b; ASTM E1921-20; ASTM E1921-21a; ASTM E1921-22a; NTD MCHO IAE 443.56–86; NTD MCHO IAE 443.65–86; ESIS P2-91D; ASTM E399-90; ASTM E399-06; ASTM E399-09e2; ASTM E399-12e3; ASTM E399-17; ASTM E399-20a; ČSN EN ISO 12737:2011; ČSN ISO 12135:2018)	equipment for chemical and paper industry	
5	Static fracture toughness test on the tensile testing machine Instron 5967	PP 2303 234 (ČSN 42 0347:1991; ASTM E1820-99; ASTM E1820-01; ASTM E1820-08; ASTM E1820-09; ASTM E1820-11; ASTM E1820-13; ASTM E1820-13e1; ASTM E1820-16;	Metallic materials for equipment of nuclear power plant, reactors, piping, metal structures, industrial and marine boilers, steam turbines, machines and equipment for chemical and paper industry	-

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Ordinal number[1]	Test procedure / method name	Test procedure / method identification[2]	Subject of the test	Degrees of freedom[3]
		ASTM E1820-17a; ASTM E1820-18ae1; ASTM E1820-20b; ASTM E1820-21; ASTM E1820-23; ASTM E1921-97; ASTM E1921-02; ASTM E1921-05; ASTM E1921-08; ASTM E1921-09; ASTM E1921-11; ASTM E1921-12; ASTM E1921-13; ASTM E1921-15; ASTM E1921-17a; ASTM E1921-18; ASTM E1921-19b; ASTM E1921-20; ASTM E1921-21a; ASTM E1921-22a; ČSN ISO 12135:2018)		
6	Tensile test on the tensile testing machine Instron 1342 with control console 8800	PP 2303 027 (ČSN 42 0310:1980; ČSN 42 0312:1987; ČSN 42 0313:1985; ASTM E8M-85; ASTM E8M-99; ASTM E8M-00; ASTM E8M-01; ASTM E8M-04; ASTM E8/E8M-08; ASTM E8/E8M-09; ASTM E8/E8M-11; ASTM E8/E8M-13; ASTM E8/E8M-15a; ASTM E8/E8M-16a; ASTM E8/E8M-21; ASTM E8/E8M-22; ASTM E21-09; ASTM E21-17; ASTM E21-17ae1; ASTM E21-20; NTD MCHO IAE 443.64–86; ČSN EN 10002-1:2002; ČSN EN 10002-5:1998; ČSN EN ISO 6892-1:2010; ČSN EN ISO 6892-1:2017;	Metallic materials for equipment of nuclear power plant, reactors, piping, metal structures, industrial and marine boilers, steam turbines, machines and equipment for chemical and paper industry	-

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Ordinal number[1]	Test procedure / method name	Test procedure / method identification[2]	Subject of the test	Degrees of freedom[3]
		ČSN EN ISO 6892-1:2021; ČSN EN ISO 6892-2:2011; ČSN EN ISO 6892-2:2018)		
7	Tensile test on the tensile testing machine Instron 1342 with control console 8800	PP 2303 026 (ČSN 42 0310:1980; ČSN 42 0312:1987; ČSN 42 0313:1985; ASTM E8M-85; ASTM E8M-99; ASTM E8M-00; ASTM E8M-01; ASTM E8M-04; ASTM E8/E8M-08; ASTM E8/E8M-09; ASTM E8/E8M-11; ASTM E8/E8M-13; ASTM E8/E8M-15a; ASTM E8/E8M-16a; ASTM E8/E8M-21; ASTM E8/E8M-22; ASTM E21-09; ASTM E21-17; ASTM E21-17ae1; ASTM E21-20; NTD MCHO IAE 443.64–86; ČSN EN 10002-1:2002; ČSN EN 10002-5:1998; ČSN EN ISO 6892-1:2010; ČSN EN ISO 6892-1:2017; ČSN EN ISO 6892-1:2021; ČSN EN ISO 6892-2:2011; ČSN EN ISO 6892-2:2018)	Metallic materials for equipment of nuclear power plant, reactors, piping, metal structures, industrial and marine boilers, steam turbines, machines and equipment for chemical and paper industry	-
8	Tensile test on the tensile testing machine Zwick Z100 with control console testControl II	PP 2303 025 (ČSN 42 0310:1980; ČSN 42 0312:1987; ČSN 42 0313:1985; ASTM E8M-85; ASTM E8M-99; ASTM E8M-00; ASTM E8M-01; ASTM E8M-04; ASTM E8/E8M-08; ASTM E8/E8M-09; ASTM E8/E8M-11; ASTM E8/E8M-13; ASTM E8/E8M-15a; ASTM E8/E8M-16a;	Metallic materials for equipment of nuclear power plant, reactors, piping, metal structures, industrial and marine boilers, steam turbines, machines and equipment for chemical and paper industry	-

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Ordinal number[1]	Test procedure / method name	Test procedure / method identification[2]	Subject of the test	Degrees of freedom[3]
		ASTM E8/E8M-21; ASTM E8/E8M-22; ASTM E21-09; ASTM E21-17; ASTM E21-17ae1; ASTM E21-20; NTD MCHO IAE 443.64–86; ČSN EN 10002-1:2002; ČSN EN 10002-5:1998; ČSN EN ISO 6892-1:2010; ČSN EN ISO 6892-1:2017; ČSN EN ISO 6892-1:2021; ČSN EN ISO 6892-2:2011; ČSN EN ISO 6892-2:2018)		
9	Tensile test on the tensile testing machine Instron 8802 with control console 8800	PP 2303 028 (ČSN 42 0310:1980; ČSN 42 0312:1987; ČSN 42 0313:1985; ASTM E8M-85; ASTM E8M-99; ASTM E8M-00; ASTM E8M-01; ASTM E8M-04; ASTM E8/E8M-08; ASTM E8/E8M-09; ASTM E8/E8M-11; ASTM E8/E8M-13; ASTM E8/E8M-15a; ASTM E8/E8M-16a; ASTM E8/E8M-21; ASTM E8/E8M-22; ASTM E21-09; ASTM E21-17; ASTM E21-17ae1; ASTM E21-20; NTD MCHO IAE 443.64–86; ČSN EN 10002-1:2002; ČSN EN 10002-5:1998; ČSN EN ISO 6892-1:2010; ČSN EN ISO 6892-1:2017; ČSN EN ISO 6892-1:2021; ČSN EN ISO 6892-2:2011; ČSN EN ISO 6892-2:2018)	Metallic materials for equipment of nuclear power plant, reactors, piping, metal structures, industrial and marine boilers, steam turbines, machines and equipment for chemical and paper industry	-
10	Impact test on the hammer RKP 450	PP 2303 041 (ČSN ISO 148-1:2010; ČSN EN ISO 148-1:2017; ČSN EN 10045-1:1998;	Metallic materials for equipment of nuclear power plant, reactors, piping, metal structures, industrial and	-

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Ordinal number[1]	Test procedure / method name	Test procedure / method identification[2]	Subject of the test	Degrees of freedom[3]
		ČSN 42 0381:1979; ČSN 42 0382:1979; ČSN 42 0383:1981; ČSN 42 0350:1988; NTD MCHO IAE 443.51–84; ISO 14556:2000; ČSN EN ISO 14556:2001; ČSN EN ISO 14556:2017; ASTM E1820-11; ASTM E1820-13; ASTM E1820-13e1; ASTM E1820-16; ASTM E1820-17a; ASTM E1820-18ae1; ASTM E1820-21; ASTM E1820-23)	marine boilers, steam turbines, machines and equipment for chemical and paper industry	
11	Impact test on the hammer RKP450	PP 2303 039 (ČSN ISO 148-1:2010; ČSN EN ISO 148-1:2017; ČSN EN 10045-1:1998; ČSN 42 0381:1979; ČSN 42 0382:1979; ČSN 42 0383:1981; ČSN 42 0350:1988; NTD MCHO IAE 443.51–84; ISO 14556:2000; ČSN EN ISO 14556:2001; ČSN EN ISO 14556:2017 ASTM E1820-11; ASTM E1820-13; ASTM E1820-13e1; ASTM E1820-16; ASTM E1820-17a; ASTM E1820-18ae1; ASTM E1820-21; ASTM E1820-23)	Metallic materials for equipment of nuclear power plant, reactors, piping, metal structures, industrial and marine boilers, steam turbines, machines and equipment for chemical and paper industry	-
12	Impact test on the hammer Amsler RKP50	PP 2303 040 (ČSN ISO 148-1:2010; ČSN EN ISO 148-1:2017; ČSN EN 10045-1:1998; ČSN 42 0381:1979; ČSN 42 0382:1979; ČSN 42 0383:1981; ČSN 42 0350:1988; NTD MCHO IAE 443.51–84; DIN 50 115:1991; SEP 1315:1987;	Metallic materials for equipment of nuclear power plant, reactors, piping, metal structures, industrial and marine boilers, steam turbines, machines and equipment for chemical and paper industry	-

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Ordinal number[1]	Test procedure / method name	Test procedure / method identification[2]	Subject of the test	Degrees of freedom[3]
		ISO 14556:2000; ČSN EN ISO 14556:2001; ČSN EN ISO 14556:2017; ASTM E 23-16b; ASTM E1820-11; ASTM E1820-13; ASTM E1820-13e1; ASTM E1820-16; ASTM E1820-17a; ASTM E1820-18ae1; ASTM E1820-21; ASTM E1820-23)		
13	Test for the determination of modulus of elasticity on the tensile testing machine Instron 8802 with control console 8800	PP 2303 029 (ČSN 42 0345:1988; ASTM E111-82; ASTM E111-97; ASTM E111-04; ASTM E111-17)	Metallic materials for equipment of nuclear power plant, reactors, piping, metal structures, industrial and marine boilers, steam turbines, machines and equipment for chemical and paper industry	-
14	Bend test on the tensile testing machine Instron 8802 with control console 8800	PP 2303 030 (ČSN EN 910:1997; ČSN ISO 7438:1994; ČSN EN ISO 7438:2016; ČSN EN ISO 7438:2021; ČSN EN ISO 5173:2010)	Metallic materials for equipment of nuclear power plant, reactors, piping, metal structures, industrial and marine boilers, steam turbines, machines and equipment for chemical and paper industry	-
15	Fatigue test on the resonator Zwick HFP 5100	PP 2303 072 (ČSN 42 0362:1987; ČSN 42 0363:1987; ČSN 42 0368:1973)	Metallic materials for equipment of nuclear power plant, reactors, piping, metal structures, industrial and marine boilers, steam turbines, machines and equipment for chemical and paper industry	-
16	Hardness test on the hardness tester Indentec ZHV30	PP 2303 045 (ČSN EN ISO 6507-1:2006; ČSN EN ISO 6507-1:2018; ASTM E92-82(2003)e2; ASTM E92-16; ASTM E92-17; ASTM E140-12b(2019)e1)	Metallic materials for equipment of nuclear power plant, reactors, piping, metal structures, industrial and marine boilers, steam turbines, machines and equipment for chemical and paper industry	-
17	Determination of strength characteristics (Punch tests)	PP 2303 032 (CWA 15627:2006; ASTM E3205-20; ČSN EN 10371:2021)	Metallic materials for equipment of nuclear power plant, reactors, piping, metal structures, industrial and	-

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Ordinal number[1]	Test procedure / method name	Test procedure / method identification[2]	Subject of the test	Degrees of freedom[3]
	on the tensile testing machine Instron 5967		marine boilers, steam turbines, machines and equipment for chemical and paper industry	
18	Determination of fracture toughness (Punch tests) on the tensile testing machine Instron 5967	PP 2303 147 (CWA 15627:2006; ASTM E3205-20; ČSN EN 10371:2021)	Metallic materials for equipment of nuclear power plant, reactors, piping, metal structures, industrial and marine boilers, steam turbines, machines and equipment for chemical and paper industry	-
19	Determination of Fracture Appearance Transition Temperature FATT (Punch tests) on the tensile testing machine Instron 5967	PP 2303 148 (CWA 15627:2006; ASTM E3205-20; ČSN EN 10371:2021)	Metallic materials for equipment of nuclear power plant, reactors, piping, metal structures, industrial and marine boilers, steam turbines, machines and equipment for chemical and paper industry	-
20	Instrumented hardness test (determination of strength characteristics) on the tensile testing machine Instron 5967	PP 2303 033 (ISO/TC 164/SC 3:2011)	Metallic materials for equipment of nuclear power plant, reactors, piping, metal structures, industrial and marine boilers, steam turbines, machines and equipment for chemical and paper industry	-
21	Instrumented hardness test (stress deformation analysis) on the tensile testing machine Instron 5967	PP 2303 222 (ISO/TC 164/SC 3:2011)	Metallic materials for equipment of nuclear power plant, reactors, piping, metal structures, industrial and marine boilers, steam turbines, machines and equipment for chemical and paper industry	-
22	Low cycle fatigue test in an elevated temperature environment on the Pluto 6 autoclave	PP 2303 458 (ČSN EN ISO 11782-1:2009)	Metallic materials for equipment of nuclear power plant, reactors, piping, metal structures, industrial and marine boilers, steam turbines, machines and equipment for chemical and paper industry	-

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[1] asterisk at the ordinal number identifies the tests, which the laboratory is qualified to carry out outside the permanent laboratory premises

[2] if the document identifying the test procedure is dated, only these specific procedures are used. If the document identifying the test procedure is not dated, the latest valid edition of the specified procedure is used (including any changes)

[3] the laboratory does not apply a flexible approach to the scope of accreditation

Explanatory notes:

NTD MCHO IAE	- Normative technical document of the International Economic Association Interatomenergo
ESIS	- European Structural Integrity Society
CWA	- CEN (European Committee for Standardization) Workshop Agreement
PP	- Internal Procedure of the Laboratory

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