



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. 676/2021

**Státní ústav radiační ochrany, v.v.i.**  
**with registered office Bartoškova 1450/28, 140 00 Praha 4, Company Registration No. 86652052**

to the Testing Laboratory No. 1479  
SÚRO Testing Laboratories

Scope of accreditation:

Determination of the content of radionuclides in gaseous, liquid and solid samples, human body; determination of dosimetric quantities and radon activity for the purposes of radiation protection; determination of the content of substances in sorption tubes by gas chromatography 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 Body is entitled to refer to this Certificate, provided that the accreditation is not suspended and the Body meets the specified accreditation requirements in accordance with the relevant regulations applicable to the activity of an accredited Conformity Assessment Body.

This Certificate of Accreditation replaces, to the full extent, Certificate No.: 261/2019 of 5. 6. 2019, or any administrative acts building upon it.

The Certificate of Accreditation is valid until: **5. 6. 2024**

Prague: 20. 12. 2021



Lukáš Burda  
Director of the Department  
of Testing and Calibration Laboratories  
Czech Accreditation Institute  
Public Service Company

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

Státní ústav radiální ochrany, v.v.i.  
SÚRO Testing Laboratories  
Bartoškova 1450/28, 140 00 Praha 4, Nusle

**Testing laboratory locations:**

- |   |   |  |
|---|---|--|
| 1 | <b>Branch Hradec Králové</b>                | Piletická 44/57, 500 03 Hradec Králové |
| 2 | <b>Monitoring Department</b>                | Bartoškova 1450/28, 140 00 Praha 4     |
| 3 | <b>Branch Ostrava</b>                       | Syllabova 1198/21, 703 00 Ostrava      |
| 4 | <b>Medical Exposure Department</b>          | Bartoškova 1450/28, 140 00 Praha 4     |
| 5 | <b>Dosimetry Department</b>                 | Bartoškova 1450/28, 140 00 Praha 4     |
| 6 | <b>Natural Radiation Sources Department</b> | Bartoškova 1450/28, 140 00 Praha 4     |

*The laboratory provides expert opinions and interprets test results.*

**1 Branch Hradec Králové**

**Tests:**

Ordinal number <sup>1</sup>	Test procedure/method name	Test procedure/method identification <sup>2</sup>	Tested object
1	Determination of radionuclides by high resolution gamma-ray spectrometry	SZP 11 (ČSN ISO 10703)	Gaseous, liquid, solid samples
2	Determination of <sup>222</sup> Rn activity concentration in water by measurement of gamma rays	SZP 4 (ČSN 75 7624)	Water <sup>3</sup>

**2 Monitoring Department Praha**

**Tests:**

Ordinal number <sup>1</sup>	Test procedure/method name	Test procedure/method identification <sup>2</sup>	Tested object
1	Determination of radionuclides by high resolution gamma-ray spectrometry	SZP 11 (ČSN ISO 10703)	Gaseous, liquid, solid samples
2	Determination of gross alpha activity concentration in water by measurement of evaporation residue and scintillator ZnS(Ag) mixture	SZP 12 (ČSN 75 7611)	Water <sup>3</sup>



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Ordinal number <sup>1</sup>	Test procedure/method name	Test procedure/method identification <sup>2</sup>	Tested object
3	Determination of gross beta activity concentration in water by beta particles measurement in ignited evaporation residue by a window proportional counter	SZP 13 (ČSN 75 7612)	Water <sup>3</sup>
4	Determination of <sup>90</sup> Sr activity by beta particles measurement after chemical separation using a proportional counter	SZP 14 (VDI 123)	Food chain samples, water <sup>3</sup> , aerosols in filters
5	Amount determination of tracer gases sorbed in sorption tubes by a method of thermal desorption-gas chromatography using electron capture detector	SZP 16 (ČSN EN ISO 16017-1, ČSN EN ISO 16017-2, ČSN EN ISO 10301)	Sorption tubes <sup>4</sup>
6	Measurement of radionuclide activity in human body in vivo by a gamma-ray spectrometry method and determination of committed effective dose by calculation from measured values	SZP CTP 1 (VDI 127, SÚJB Recommendation: Personal monitoring in connection with radiation exposure activities, part II. – internal radiation exposure)	Human body, internal radiation exposure of persons

### 3 Branch Ostrava

#### Tests:

Ordinal number <sup>1</sup>	Test procedure/method name	Test procedure/method identification <sup>2</sup>	Tested object
1	Determination of radionuclides by high resolution gamma-ray spectrometry	SZP 11 (ČSN ISO 10703)	Gaseous, liquid, solid samples
2	Determination of <sup>90</sup> Sr activity by beta particles measurement after chemical separation using a proportional counter	SZP 35 (VDI 123)	Food chain samples, water <sup>3</sup>

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#### 4 Medical Exposure Department

Tests:

Ordinal number <sup>1</sup>	Test procedure/method name	Test procedure/method identification <sup>2</sup>	Tested object
1	Determination of patient dose and image quality by thermoluminescence dosimeters and x-ray films (postal TLD dental inspection)	SOP 1	Dental intraoral x-ray equipment
2	Determination of attenuation properties of materials by ionometric method in Isovolt Titan x-ray beams	SOP 09 (IEC 61331-1)	Protective devices against diagnostic medical X-radiation
3	Determination of air kerma and air kerma rate by ionometric method in Isovolt Titan x-ray beams and in OG-8 gamma ray beams	SOP 10 (IAEA TRS No. 457, IAEA TRS No. 469)	Ionizing radiation fields (photons only)

#### 5 Dosimetry Department

Tests:

Ordinal number <sup>1</sup>	Test procedure/method name	Test procedure/method identification <sup>2</sup>	Tested object
1	Determination of personal doses from external exposure using TLD Harshaw 6600 system	M1	External radiation exposure of persons
2	Determination of H*(10) and H'(0.07) using TLD Harshaw 6600 system	M2	Ionizing radiation field



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## 6 Natural Radiation Sources Department

### Tests:

Ordinal number <sup>1</sup>	Test procedure/method name	Test procedure/method identification <sup>2</sup>	Tested object
1*	Determination of radon activity concentration time series using continual monitors based on alpha spectrometry	M12 (SÚJB Recommendation: Measurement and evaluation of exposure from natural radiation sources in buildings with habitable or living rooms, SÚJB Recommendation: Determination of personal doses to workers in workplaces with material containing elevated levels of natural radionuclides, SÚJB Recommendation: Determination of personal doses to workers in workplaces with possible elevated exposure from radon)	Indoor air of buildings, NORM and radon workplaces
2*	Determination of the time average radon activity concentration by electret dosimetry system RM-1	M13 (SÚJB Recommendation: Measurement and evaluation of exposure from natural radiation sources in buildings with habitable or living rooms, SÚJB Recommendation: Determination of personal doses to workers in workplaces with material containing elevated levels of natural radionuclides, SÚJB Recommendation: Determination of personal doses to workers in workplaces with possible elevated exposure from radon)	Indoor air of buildings, NORM and radon workplaces



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### Abbreviations

CTP	Whole-Body Counter
IAEA	International Atomic Energy Agency
M	Method
NORM	Naturally occurred radioactive materials
SOP	Standard Operating Procedure
SZP	Standard Operating Procedure
SÚJB	State Office for Nuclear Safety
TLD	Thermoluminescence dosimetry
TRS	Technical Reports Series
VDI	State Office for Nuclear Safety Guideline
H*(10)	Ambient dose equivalent at a depth of 10 mm
H'(0.07)	Directional dose equivalent at a depth of 0.07 mm

### Explanations

- <sup>1</sup> Asterisk at the ordinal number identifies the tests performed also outside the laboratory premises.
- <sup>2</sup> For dated documents identifying test procedures, only the specified procedures are used; for undated documents identifying test procedures, the most recent edition of the procedure (including any changes) is used.
- <sup>3</sup> Water: drinking, bottled, natural, infant, mineral, surface, ground, mine, waste, rain, utility, raw, sea, sewage, proces.
- <sup>4</sup> Tracer gases – PCH (Perfluoro iso-propylcyclohexane); TMH (Perfluoro 1,3,5-trimethyl-cyclohexane); PCE (Tetrachloro-ethylene); MDC (Perfluoro 1,3-dimethyl-cyclohexane); ECH (Perfluoro ethyl-cyclohexane); TCE (Trichloro-ethylene); MCH (Perfluoro-methylcyclo-hexane).

