

# CERTIFICATE OF ACCREDITATION

## The ANSI National Accreditation Board

Hereby attests that

# Radiation Safety & Control Services, Inc. 93 Ledge Road Seabrook, NH 03874

Fulfills the requirements of

**ISO/IEC 17025:2017** 

In the field of

## **CALIBRATION**

This certificate is valid only when accompanied by a current scope of accreditation document. The current scope of accreditation can be verified at <a href="www.anab.org">www.anab.org</a>.

Jason Stine, Vice President

Expiry Date: 19 September 2024 Certificate Number: AC-2079









## SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

## Radiation Safety & Control Services, Inc.

93 Ledge Road Seabrook, NH 03874

Christofer Krueger 603-474-6722

Email: crkrueger@radsafety.com Website: www.radsafety.com

## **CALIBRATION**

Valid to: September 19, 2024 Certificate Number: AC-2079

### **Ionizing Radiation**

Version 010 Issued: August 15, 2023

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Ionizing Radiation Dose Rate, Exposure Rate	(100 μ to 1.6) R/hr (100 μ to 1.6) rem/hr 1 μ Sv/hr to 16 mSv/hr	6 % of reading	Cs-137 Beam Source ANSI N323AB-2013 ANSI N322-1997
Integrated Dose and Integrated Exposure <sup>1</sup>	Up to 16 R, 16 rem or 160 mSv	6 % of reading	
Ionizing Radiation Dose Rate, Exposure Rate	(1 m to 20 k) R/hr (1 m to 20 k) rem/hr (10 μ to 200) Sv/hr	2.7 % of reading	Cs-137 Box Source ANSI N323AB-2013
Integrated Dose and Integrated Exposure <sup>1</sup>	Up to 200 kR, 200 krem or 2 kSv	2.7 % of reading	ANSI N322-1997
Ionizing Radiation Dose Rate <sup>1</sup>	(6 to 120) mrem/hr	9.2 % of reading	Plutonium-Beryllium Source, HAWK TEPC ANSI N323AB-2013, ICRP 26
Ionizing Radiation Dose Rate <sup>1</sup>	(7 to 200) mrem/hr	9.4 % of reading	Plutonium-Beryllium Source, HAWK TEPC ANSI N323AB-2013, ICRP 60
Dose Rate, Exposure Rate	10 μR/hr to 10 R/hr	3.4 % of reading	Ludlum Model 500 Pulsing Station
Count Rate Instruments	(1 to 9.99 x 10 <sup>6</sup> ) cpm	3.4 % of reading	Ludlum Model 500 Pulsing Station
Alpha detection efficiencies	(2.2 to 5.9 x 10 <sup>4</sup> ) dpm	10 % of reading	Alpha Standard Source
Beta detection efficiencies	(2.8 to 4.4 x 10 <sup>5</sup> ) dpm	10 % of reading	Beta Standard Source





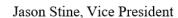
### **Ionizing Radiation**

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Gamma detection efficiencies	$(4.4 \times 10^3 \text{ to } 1.7 \times 10^6) \text{ dpm}$	10 % of reading	Gamma Standard Source
Radiation protection — Sealed radioactive sources — Leakage test		25 % of Leak Value	Tennelec LB5100 Low Background Alpha/Beta Counting System
Alpha Sources Beta Sources	(1e <sup>-6</sup> to 1) μCi	44 % of Leak Value	Counting System

Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and reference standard, method, and/or equipment. The expanded uncertainty of measurement is expressed as the standard uncertainty of the measurement multiplied by a coverage factor of 2 (*k*=2), corresponding to a confidence level of approximately 95%.

#### Notes:

1. This scope is formatted as part of a single document including Certificate of Accreditation No. AC-2079.



Version 010 Issued: August 15, 2023

