



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

Perry Johnson Laboratory Accreditation, Inc. has assessed the Laboratory of:

Tecnofísica Radiológica S.C.

*Reforma No. 2220 Ote., Col. Modelo
Monterrey, Nuevo León, México. C.P. 64580*

*(Hereinafter called the Organization) and hereby declares that Organization is accredited
in accordance with the recognized International Standard:*

ISO/IEC 17025:2017

This accreditation demonstrates technical competence for a defined scope and the
operation of a laboratory quality management system
(as outlined by the joint ISO-ILAC-IAF Communiqué dated April 2017):

Ionizing Radiation and Radioactivity *(As detailed in the supplement)*

Accreditation claims for such testing and/or calibration services shall only be made from addresses referenced within this certificate. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation body's duty to observe and comply with the said rules.

For PJLA:

Tracy Szerszen
President Perry Johnson
Laboratory Accreditation, Inc.
(PJLA)

755 W. Big Beaver, Suite 1325
Troy, Michigan 48084

Initial Accreditation Date:

October 17, 2019

Revision Date:

October 29, 2024

Issue Date:

February 09, 2024

Accreditation No.:

99046

Expiration Date:

February 09, 2026

Certificate No.:

L24-116-R1

*The validity of this certificate is maintained through ongoing assessments based on a
continuous accreditation cycle. The validity of this certificate should be
confirmed through the PJLA website: www.pjilabs.com*



Certificate of Accreditation: Supplement

Tecnofísica Radiológica S.C.

Reforma No. 2220 Ote., Col. Modelo
Monterrey, Nuevo León, México. C.P. 64580

Contact Name: Brenda Viridiana Delgado Santos Phone: 811-052-0900

Accreditation is granted to the facility to perform the following calibrations:

Ionizing Radiation and Radioactivity

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (\pm)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED	CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED
Equipment to Measure Kerma/Rate ^{FO} (in Air)	$9.7 \times 10^{-5} \mu\text{Gy/s}$ to $4.6 \mu\text{Gy/s}$ ($0.35 \mu\text{Gy/h}$ to 17mGy/h)	7.2 % of reading	Reference Radiation Source Radionuclide Cs-137 Reference Standard Pressurized Ion Chamber Chronometer Distance meter	Internal Method TFR-PG15
Equipment to Measure Ambient Dose Equivalent/Rate ^{FO} (in Air)	$1.2 \times 10^{-4} \mu\text{Sv/s}$ to $5.6 \mu\text{Sv/s}$ ($0.42 \mu\text{Sv/h}$ to 0.02Sv/h)	7.2 % of reading	Reference Radiation Source Radionuclide Cs-137 Reference Standard Pressurized Ion Chamber Scaler Chronometer Distance meter	
Equipment to Measure Personal Dose Equivalent/Rate ^F (ICRU Slab Phantom, 10 mm Deep)	$1.2 \times 10^{-4} \mu\text{Sv/s}$ to $5.6 \mu\text{Sv/s}$ ($0.42 \mu\text{Sv/h}$ to 0.02Sv/h)	9.3 % of reading	Reference Radiation Source Radionuclide Cs-137 Reference Standard Pressurized Ion Chronometer Distance meter	
Dose Calibrator ^{FO}	Cs-137 $9.25 \times 10^5 \text{Bq}$ to $9.25 \times 10^6 \text{Bq}$ Co-57 $9.25 \times 10^5 \text{Bq}$ to $1.85 \times 10^8 \text{Bq}$ Ba-133 $9.25 \times 10^5 \text{Bq}$ to $9.25 \times 10^6 \text{Bq}$	5.8 % of reading	Reference Radiation Source Cs-137 Co-57 Ba-133	Internal Method TFR-PG17
Equipment to Measure Ambient Dose Equivalent/Rate ^F (Neutron, in Air)	$5.5 \times 10^{-3} \mu\text{Sv/s}$ to $2.2 \times 10^1 \mu\text{Sv/s}$ ($20 \mu\text{Sv/h}$ to 0.08Sv/h)	11 % of reading	ISO 8529-1 Reference Radiation Source Am-241/Be Neutron Detector 25 cm Bonner Sphere Pulse Generator Distance meter	Internal Method TFR-PG16



Certificate of Accreditation: Supplement

Tecnofísica Radiológica S.C.

Reforma No. 2220 Ote., Col. Modelo

Monterrey, Nuevo León, México. C.P. 64580

Contact Name: Brenda Viridiana Delgado Santos Phone: 811-052-0900

Accreditation is granted to the facility to perform the following calibrations:

1. The CMC (Calibration and Measurement Capability) stated for calibrations included on this scope of accreditation represents the smallest measurement uncertainty attainable by the laboratory when performing a more or less routine calibration of a nearly ideal device under nearly ideal conditions. It is typically expressed at a confidence level of 95 % using a coverage factor k (usually equal to 2). The actual measurement uncertainty associated with a specific calibration performed by the laboratory will typically be larger than the CMC for the same calibration since capability and performance of the device being calibrated and the conditions related to the calibration may reasonably be expected to deviate from ideal to some degree.
2. The laboratories range of calibration capability for all disciplines for which they are accredited is the interval from the smallest calibrated standard to the largest calibrated standard used in performing the calibration. The low end of this range must be an attainable value for which the laboratory has or has access to the standard referenced. Verification of an indicated value of zero in the absence of a standard is common practice in the procedure for many calibrations but by its definition it does not constitute calibration of zero capacity.
3. The presence of a superscript F means that the laboratory performs calibration of the indicated parameter at its fixed location.
4. The presence of a superscript O means that the laboratory performs calibration of the indicated parameter onsite at customer locations.
5. Measurement uncertainties obtained for calibrations performed at customer sites can be expected to be larger than the measurement uncertainties obtained at the laboratories fixed location for similar calibrations. This is due to the effects of transportation of the standards and equipment and upon environmental conditions at the customer site which are typically not controlled as closely as at the laboratories fixed location.