



Autoridad Regulatoria Nuclear

DEPENDIENTE DE LA PRESIDENCIA DE LA NACION

Expediente N°: ARN SRC 4136/11

Iniciado el 13/07/2011



SINTESIS: NIST RADIOCHEMISTRY INTERCOMPARISON PROGRAM FOR
FY 2011 FROM PHYSICAL MEASUREMENT LABORATORY
IONIZING RADIATION DIVISION 682.04. AGREEMENT N° ARN
3725/11, FILE N° 1890, CD 20/11

USUARIO: NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY

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DEPENDIENTE DE LA PRESIDENCIA DE LA NACION		
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Autoridad Regulatoria Nuclear

DEPENDIENTE DE LA PRESIDENCIA DE LA NACION

BUENOS AIRES, 13 JUL 2011

NATIONAL INSTITUTE OF
STANDARDS AND TECHNOLOGY

Please find attached the corresponding Memorandum of Understanding between the Autoridad Regulatoria Nuclear (ARN) and the National Institute of Standards and Technology (NIST) through which the ARN is obtaining NIST RADIOCHEMISTRY Intercomparison Program for FY 2011 from Physical Measurement Laboratory Ionizing Radiation Division 682.04 NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY U.S. DEPARTMENT OF COMMERCE. Agreement N° ARN 3725/11, File N° 1890, CD 20/11.



Lic. GUSTAVO E. MASSERA
GERENTE
APOYO CIENTIFICO TÉCNICO

NATIONAL INSTITUTE OF
STANDARDS AND TECHNOLOGY
Dr. Kenneth INN
S/D

MEMORANDUM OF UNDERSTANDING
PURSUANT TO THE NIST ORGANIC ACT
THROUGH WHICH

**Autoridad Regulatoria Nuclear
Buenos Aires, ARGENTINA**

IS OBTAINING

NIST Radiochemistry Intercomparison Program for FY 2011

FROM

**Physical Measurement Laboratory
Ionizing Radiation Division 682.04
NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
U.S. DEPARTMENT OF COMMERCE**

Agreement No. ARN 3725/11, File No. 1890, CD 20/11

1. PARTIES AND PURPOSE

This Memorandum of Understanding (MOU) establishes an agreement between Autoridad Regulatoria Nuclear, Buenos Aires, ARGENTINA (ARN) and Physical Measurement Laboratory Ionizing Radiation Division 682.04, National Institute of Standards and Technology (NIST), U.S. Department of Commerce, through which ARN will pay NIST for NIST Radiochemistry Intercomparison Program (NRIP) for FY 2011.

2. BACKGROUND

ARN participates in this program in order to have direct traceability to NIST for the analytical work performed by the ARN Radiochemistry Laboratory.

3. AUTHORITY

The authorities for NIST to enter into this agreement are:

(A) The NIST Organic Act, 15 U.S.C. §§ 273, 275a, and 278b, which authorize NIST to exercise its functions for other organizations and to receive reimbursement or advance payment based upon fixed prices or actual costs.

(B) NIST'S programmatic authority, 15 U.S.C. §§ 272(b)(2), and (c)(2).

4. TERMS AND CONDITIONS

(A) ARN will transfer \$ 10,000.00 to NIST as reimbursement for undertaking the activities contemplated by this agreement. This transfer will be on a reimbursable basis every quarter. NIST must be reimbursed for all actual costs incurred pursuant to this agreement. NIST will make reasonable efforts to perform all work and deliver the goods and services ordered at the costs stated in this agreement. If during the course of the project NIST foresees that the amount of funding transferred is insufficient to cover completion of the work to be performed, NIST will inform ARN. ARN must determine whether to: (1) transfer additional funds to NIST to complete the project; (2) request that NIST cease work and return any unexpended balance; or (3) modify the scope of the project such that NIST can complete the work with available funds. Any agreement to pay additional cost must be approved in a written modification to this agreement.

(B) Work to be undertaken and deliverables to be provided:

Deliverables for this work are the four distributions of test samples and the corresponding assessment reports. The work under this agreement includes four distributions of NIST test sample to ARN, not for calibration, but for measurement traceability tests. NIST will send ARN the following four sample sets:

1. One set of samples for **U, 90Sr and 226Ra** consisting of [5 x 1L acidified water **SPIKED** solutions (each containing U, 90Sr and 226Ra in addition to other radionuclides)] and [3 x 1L acidified water **BLANK** solutions].
2. One set of samples for **gamma-emitters** consisting of [5 x 1L acidified water **SPIKED** solutions (each containing gamma emitters plus alpha- and beta-emitting radionuclides)] and [3 x 1L acidified water **BLANK** solutions].
3. One set of samples for **gross alpha/gross beta** consisting of [5 x 100 mL acidified water containing only 90Sr and 241Am in the concentration range 20 – 50 Bq/L] and [3 x 100 mL acidified water **BLANK** solutions]. The acidified water will be made to have [HCl] = 0.024 M, equivalent to 2 mL of 37% HCl per liter.
4. One set of samples for **tritium** measurement consisting of 4 **WATER** samples {[3 x 1L **SPIKED** water with 3H concentration 5 – 40 Bq/g] + [1 x 1L **BLANK** water]} and 4 **MILK** samples {[3 x 1L **SPIKED** milk with 3H concentrations 5 – 40 Bq/g] + [1 x 1L **BLANK** milk]}.

ARN will analyze the samples in each set and send NIST their radionuclide massic activity results and uncertainty for individual samples, and the mean values and uncertainties for each radionuclide reported for each set for evaluation. The ARN measurement results will be evaluated against the NIST radionuclide massic activity values and uncertainties. NIST will provide a report stating, for each reported radionuclide, the NIST radionuclide massic activity and uncertainty, and the ARN mean massic activity and uncertainty. Also included in the report will be the assessment of the measurement traceability between ARN and NIST for each measured radionuclide, at the 99% confidence level. The NIST report delivery date is 45 days from the prescribed reporting date.

(C) NIST's ability to continue to undertake the activities contemplated in this agreement is subject to the continued availability of Federal appropriations.

5. DURATION OF AGREEMENT AND AMENDMENTS

This agreement will become effective when signed by the parties. The agreement will terminate on 9/30/11, but may be amended at any time by mutual written consent of the parties.

6. TERMINATION AND CANCELLATION CLAUSE

Any party may terminate this agreement by providing 30 days written notice to the other party. If ARN terminates the agreement, NIST is authorized to collect costs incurred prior to cancellation of the agreement plus any termination costs.

7. RESOLUTION OF DISAGREEMENTS

Should disagreements arise on the interpretation of the provisions of this agreement or amendments and/or revisions thereto, that cannot be resolved at the operating level, the area(s) of disagreement shall be stated in writing by each party and presented to the other party for consideration. If agreement or interpretation is not reached within 30 days, the parties shall forward the written presentation of the disagreement to respective higher officials for appropriate resolution.

8. CONTACTS

The contacts of each party to this agreement are:

NIST Technical Contact Point:
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The parties agree that if there is a change regarding the information in this section, the party making the change will notify the other party in writing of such change.

Patrick M. Hovis 7-21-2011

Patrick M. Hovis
Senior Management Advisor
Physical Measurement Laboratory



Lic. GUSTAVO E. MASSERA
GERENTE
APOYO CIENTIFICO TÉCNICO