



**IAEA**

International Atomic Energy Agency

*Atoms for Peace*

**DIVISION OF RADIATION TRANSPORT AND WASTE SAFETY**



**EduTA**

**EDUCATION AND TRAINING APPRAISAL MISSION**

**IN**

**ARGENTINA**

**26 - 30 June 2006**

## COMPOSITION OF THE IAEA APPRAISAL TEAM

1. Khammar Mrabit, Team Leader, IAEA
2. Pierre-Noël Lirsac, Senior Expert, France
3. Carlos Torres Vidal, Senior Expert, Spain

## PERSONS MET DURING THE APPRAISAL MISSION

Name	Designation
Agustin Arbor González (ARN)	Member of the ARN Technical Coordination Unit Former Chief executive officer (CEO) ARN Former ARN Board of Directors – Technical Secretary Former Head of the Department of Nuclear and Radiation Safety
Ana M. Larcher (ARN)	Chairperson Advisory Council on Radioisotopes and Radiations Applications (CAAR in Spanish) Member of the ARN Technical Coordination Unit
Carlos A. Menossi (ARN)	Head, Training Courses Activity Member of the ARN Technical Coordination Unit Former Head of Control of Radioactive Class I, II and III Facilities Divisions
Pedro M. Sajaroff (ARN)	Former Head of the Environmental Control Division President of the ARN Advisory Committee on the Licensing of Relevant Installations' Personnel (CALPIR, in Spanish) Member of the ARN Technical Coordination Unit Former Vice-chairman ARN. Former member of the International Nuclear Safety Advisory Group (INSAG) Member of the IAEA Nuclear Safety Standards Committee
Carlos A. Terrado (ARN)	Head of the ARN Technical Coordination Unit Former Head of the Control of Nuclear Reactors Division Former member of the Committee for the Assessment of the Atucha II NPP Project
Noemi Gigli (ARN)	Member of the Training Courses Activity (Part-Time) Member of the ARN Institutional Affairs

	Division
Alejandro A. La Pasta (MoH, Buenos Aires)	Head, Technical Area of Health Physics National Ministry of Health and Environment
Enrique Noya (Mendoza Province)	President of the Administration Council, Foundation School of Nuclear Medicine (FUESMEN)  Primary Responsible of the Class I Installation “Cyclotron and Radioisotopes Production Line for PET” (FUESMEN)
Roberto Isoardi (Mendoza Province)	President of the Education and Research Committee of the Foundation School of Nuclear Medicine (FUESMEN)
Flavio Nelli (Mendoza Province)	Radiotherapy Physics Specialist
Norma Acosta (Mendoza Province)	Radiotherapy Physics Specialist  RPO of the Class I Installation “Cyclotron and Radioisotopes Production Line for PET” (FUESMEN)
Roberto Calderon (Mendoza Province MoH)	Head, Area of Health Radiophysics  Mendoza Province Ministry of Health
Raúl Barrachina (Bariloche, Río Negro Province)	Director of the BALSEIRO Institute
Roberto Mayer (Bariloche, Río Negro Province)	Vice Director, Engineering Area, of the BALSEIRO Institute
Oswaldo Calzetta (Bariloche, Río Negro Province)	Head of the Research Reactor RA-6
Carlos Fernández (Bariloche, Río Negro Province)	RPO of the Class I Installation “Research Reactor RA-6”
Nidia Gatica (Bariloche, Río Negro Province)	Commissioner of the Nuclear Regulatory Authority at the Patagonia Region

## BACKGROUND

The Nuclear Regulatory Authority (ARN), Argentina, is one of the Agency’s Regional Training Centres (RTC) for the Latin America region. ARN has been playing a key role in the Agency’s education and training activities both within the framework of the Regular Budget, in terms of development of training standards and material, as well as Technical Cooperation through the hosting of educational and specialized training events, scientific visits and fellowships over a large spectrum of activities, including legislative and regulatory issues; medical, occupational and public exposures; transport safety; emergency planning and response. ARN before and after its separation from the National Atomic Energy Commission, through a solid partnership with the University of Buenos Aires, has been successfully conducting Postgraduate Educational Courses (PGEC) for more than twenty-five years. During the period 1980-2006, seven hundred and thirty-six participants have attended the PGEC, 717 from Latin America (including 330 participants from Argentina) and 19 from other regions, including Algeria, Morocco, the Philippines, Poland, Romania, Spain, Vietnam, the former Yugoslavia and Zaire. This training support has contributed significantly to the establishment and/or upgrading of radiation protection infrastructure worldwide in general and in Latin America in particular.

The Principal Agency standards used as a basis for the appraisal were:

- the Education and Training Appraisal in Radiation Protection and the Safety of Radiation Sources (EduTA) (Draft revised document July 2005);
- the International Basic Safety Standards for Protection against Ionizing Radiation and for the Safety of Radiation Sources (SS No. 115);
- the Safety Guide, Building Competence in Radiation Protection and the Safe Use of Radioactive Sources (RS-G-1.4);
- Safety Report, Training in Radiation Protection and the Safe Use of Radioactive Sources (SRS-20);
- Standard Syllabus Postgraduate Educational Course in Radiation Protection and then Safety of Radiation Sources (Training Course Series 18);
- Draft Syllabus for the Training of Radiation Protection Officers.

### **TERMS OF REFERENCE OF THE APPRAISAL**

The terms of reference for this appraisal were:

- To evaluate the national infrastructure for education and training in radiation protection including:
  - legislative and regulatory framework related to education and training;
  - guidance material relevant to education and training;
  - the education and training program for Regulatory Body staff (qualifications, training received to date and planned for future);
  - the national training program in radiation safety or similar document;
  - approved /accredited training course providers /centers and /accredited training courses, if approval/accreditation procedures/systems exist;
  - annual reports from accredited training course providers/centers;
  - recognition/approval/accreditation procedures for education and training providers;
  - courses held in the past calendar year and the numbers of participants attending;
  - education and training programs for the five thematic safety areas;
  - list of education and training events planned; and
  - feedback from the conduct of EduTA with emphasis on self assessment.
- To identify the training needs.
- To prepare an assessment report including conclusions and recommendations for strengthening the national infrastructure for radiation protection training in Argentina.

### **CONDUCT OF THE APPRAISAL**

The first step in the appraisal was the completion of a preliminary questionnaire by ARN. ARN prepared an excellent document covering, inter alia:

- Country information;
- Documentary support information for all the tables ;
- Number of persons working with ionizing radiation;

- Existing regulatory provisions for education and training.

During the mission, numerous well prepared documents were provided by ARN to the team.

The approach used for the assessment of the radiation safety infrastructure was based on the Education and Training Appraisal in Radiation Protection and the Safety of Radiation Sources (EduTA) (draft revised document July 2005).

During the first introductory meeting at ARN headquarters, the missions and activities of the ARN and of the Ministry of Health were presented. Monday afternoon and Tuesday morning were dedicated to the discussion and clarification/verification of the self-assessment made by ARN. This included (a) regulatory infrastructures for education and training; (b) national strategy for building competence in radiation protection and waste safety; (c) education and training (E&T); and (d) special appraisal of the provision of the PGEC. These discussions continued throughout the specific visits to assess the effectiveness of education and training.

The team visited the naval Hospital “Pedro Mallo” at Buenos Aires City, the PGEC at the Ezeiza Atomic Centre, the Nuclear Medicine School in Mendoza and the Bariloche Atomic Centre.

An exit meeting was held at ARN Headquarters with the management of ARN to present the Appraisal Team’s preliminary conclusions and recommendations. The conclusions and recommendations were then finalized.

The EduTA team would like to emphasize the excellent preparation of the documents and information provided and the professional self-assessment made by ARN.

The ARN team that performed the self-appraisal also presented, as a contribution, the feedback from the EduTA, with experience and proposals resulting of their involvement in the appraisal’s tasks.

These together with the scientific visits have significantly contributed to the success of the mission.

A full technical report with the findings, recommendations and a work plan was provided to the mission’s counterpart and then national authorities.