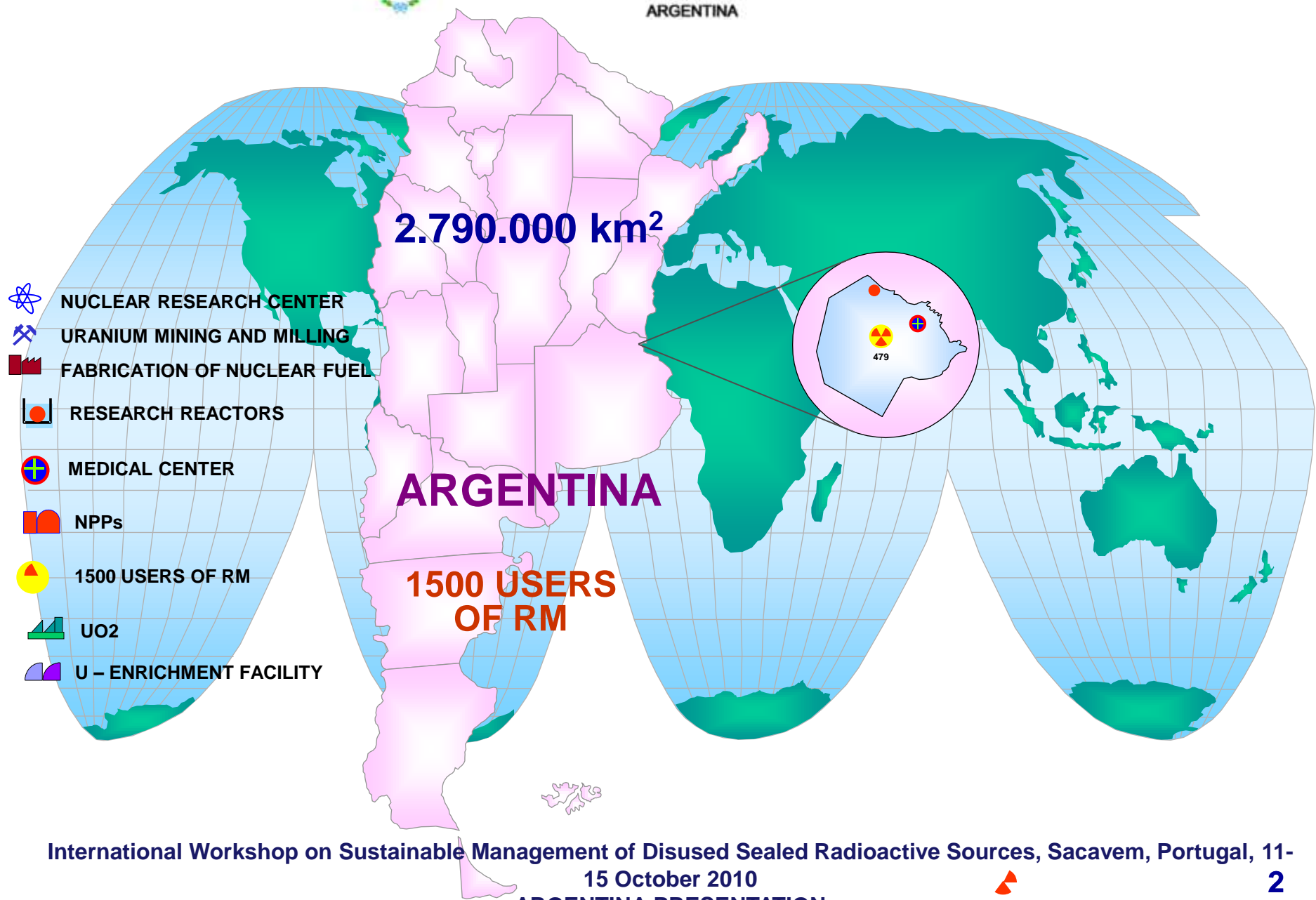


**IAEA INTERNATIONAL WORKSHOP ON
“SUSTAINABLE MANAGEMENT OF DISUSED SEALED
RADIOACTIVE SOURCES”**

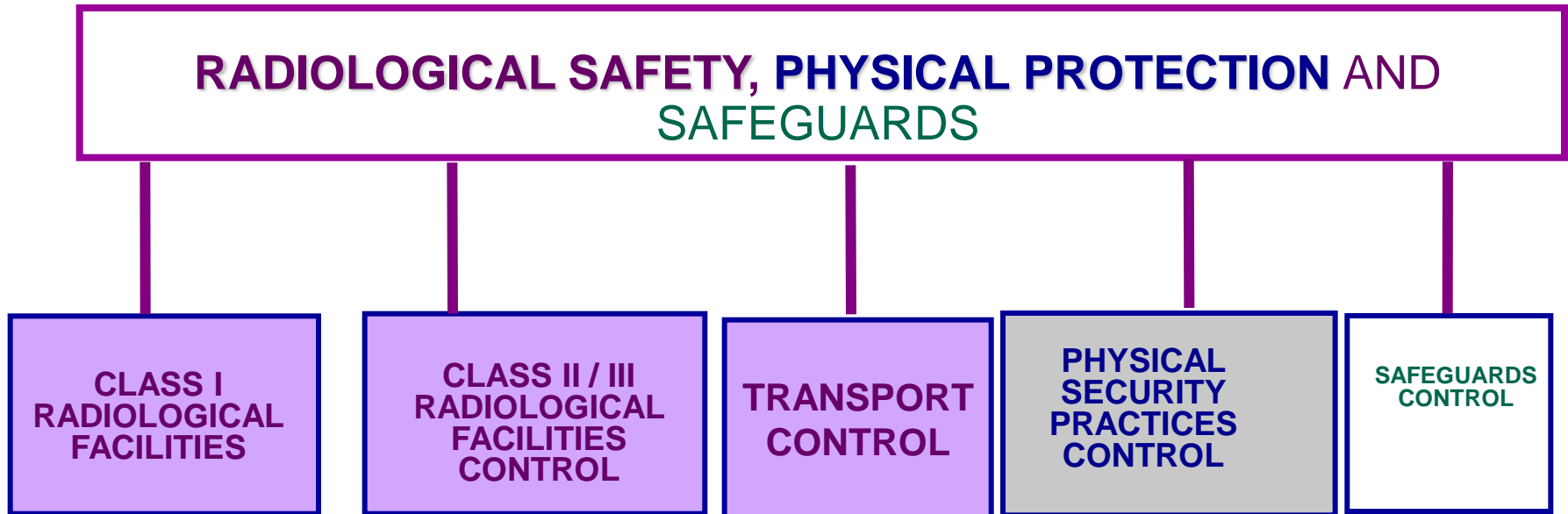
Lisbon, Portugal, 11-15 October 2010.

**ARGENTINE EXPERIENCE with the JOINT CONVENTION and
the CODE OF CONDUCT ON THE SAFETY AND SECURITY OF
RADIOACTIVE SOURCES in relation to MANAGEMENT OF
DISUSED SEALED RADIOACTIVE SOURCES**

Dora Vidal



Existing Regulatory Infrastructure that control radioactive sealed sources



RADIOLOGICAL SAFETY, SECURITY, SAFEGUARDS DIVISION

LICENSING AND FISCALIZATION OF FACILITIES OTHER THAN NPPs

ITS MAIN JOB, for the purpose of this workshop IS:

- **LICENSING AND FISCALIZATION OF FACILITIES that use
radioactive sealed sources for several purposes**
- **LICENSING AND FISCALIZATION OF FACILITIES that
manufacture/recycle sealed sources**
- **LICENSING AND FISCALIZATION OF FACILITIES that manage
disused radioactive sealed sources**

RADIOLOGICAL SAFETY, SECURITY, SAFEGUARDS DIVISION

**ARGENTINA FACILITY CLASIFICACION, IN RELATION TO SEALED
SOURCES:**

**CLASS I: IRRADIATION PLANTS, MANUFACTURER/RECICLYING OF
SEALED SOURCES, MANAGEMENT OF DISUSED SOURCES
FACILITY**

CLASS II: MEDICAL, INDUSTRIAL AND RESEARCH PURPOSES

CLASS III: MEDICAL, INDUSTRIAL AND RESEARCH PURPOSES

(VERY LOW RADIOLOGICAL RISK)

CLASS I FACILITIES

TOTAL OF FACILITIES: 41

CLASS I FACILITIES IN RELATION TO SEALED SOURCES

2	COBALT 60	INDUSTRIAL IRRADIATION PLANTS
2	COBALT 60	INDUSTRIAL IRRADIATION MOBILE PLANTS
1	COBALT 60	MANUFACTURER/ RECYCLER
1	DIFFERENT RADIONUCLIDES	MANAGEMENT OF DISUSED SOURCES

CLASS II and III FACILITIES

TOTAL OF FACILITIES: 1472 (2009)

CLASS II FACILITIES IN RELATION TO SEALED SOURCES

TOTAL OF FACILITIES IN RELATION TO SEALED SOURCES: 510

43	COBALT 60	TELE THERAPY
4	CESIUM 137	IRRADIATORS
58	CESIUM 137/IRIDIUM 192	BRACHITERAPY
338	DIFFERENT RADIONUCLIDES FOR INDUSTRIAL PURPOSES	MEASUREMENT DEVICES, OIL PROSPECTION
67	IRIDIUM 192/SELENIUM 75/COBALT 60	INDUSTRIAL RADIOGRAPHY TECHNIQUES OF Non Destructive Tests

SAFETY AND SECURITY STRATEGY IN MANAGING SOURCES

IT IS BASED ON PREVENTION, DETECTION AND RESPONSE

**DETECTION THROUGH PERIODICAL INSPECTIONS TO LICENSED
FACILITIES**

SOURCES OUT OF USE ARE REQUESTED TO BE MANAGED:

- **IN CUSTODY UNTIL THEY BE USED**
 - **FOR FINAL DISPOSAL**
 - **FOR EXPORT**

SAFETY AND SECURITY STRATEGY IN MANAGING SOURCES

**THE RESPONSE, IN PREVENTION OF ORPHAN SOURCES
OCCURRENCE, OF THE REGULATORY BODY IS**

DECOMMISSIONING OF SEALED SOURCES BY STATE

THE RESPONSE: DECOMMISSIONING OF SEALED SOURCES BY STATE, IS BASED ON

ARGENTINA HAS:

•A NATIONAL LAW THAT:

1) ENFORCES THE REGULATORY BODY TO MAKE PREVENTION AND GIVE RESPONSE IN RADIOLOGICAL SAFETY ASPECTS

2) ENFORCES CNEA TO MAKE THE MANAGEMENT OF RADIOLOGICAL WASTE (STORAGE OR DISPOSAL) REGULATORY BODY AND LICENCED MANAGEMENT FACILITY OBLIGED BY LAW

•APPROVED PACKAGES TO SHIP THE SOURCES IF NECESSARY AND LICENSED FACILITIES AND PERSONNEL

•OVERPACKS FOR A SHIPMENT BY SPECIAL ARRANGEMENT IF THERE ARE NOT APPROVED PACKAGES

MEANS

GREATER RISK IN DISUSED SEALED SOURCES IN ARGENTINE (CATEGORY 1 AND 2)

•CATEGORY 1

Co- 60	TELETERAPHY	4000 Ci/150 TBq Type B(U) Package/Overpack (Special Arrangement)
Co- 60	SOURCES USED IN IRRADIATORS FOR STERILIZATION AND FOOD PRESERVATION	4000000 Ci/150 PBq Type B(U) Package
Cs-137	SOURCES IN IRRADIATORS (BLOOD/TISSUE)	7000 Ci/260 TBq Overpack (Special Arrangement)
Co- 60	SOURCES IN IRRADIATORS SELF-SHIELDED	25000 Ci/930 TBq Overpack (Special Arrangement)
Co- 60	MULTI-BEAM TELETHERAPY (GAMMA KNIFE)	7000 Ci/260 TBq Overpack (Special Arrangement)

GREATER RISK DISUSED SEALED SOURCES IN ARGENTINE (CATEGORY 1 AND 2)

•CATEGORY 2

Co- 60 Ir-192 Se-75	SOURCES USED FOR INDUSTRIAL RADIOGRAPHY	100 Ci/3.7 TBq Type B(U) Package
Ir-192	SOURCES USED IN BRACHYTHERAPY HIGH DOSE RATE	10 Ci/370 GBq Type A package

ARGENTINA JOINING THE JOINT CONVENTION

In December 1997, during the 41st Session of the General Conference of IAEA, **Argentina** subscribed the **Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management** agreed in Vienna in the course of the Diplomatic Conference held on 15 September 1997.

The **Honorable Congress of Argentina** enacted **Law N° 25279** on 6 July 2000, ratifying the terms of the **Joint Convention** which came into effect on 18 June **2001**.

ARGENTINA'S CONTRIBUTORS TO THE REPORTS FOR THE JOINT CONVENTION IN RELATION WITH DISUSED SOURCES

- **NATIONAL COMMISSION OF ATOMIC ENERGY**

- **NUCLEAR REGULATORY AUTHORITY**

JOINT CONVENTION

Argentina has presented, 3 NATIONAL REPORTS

2003 - 2005 - 2008

The National Commission of Atomic Energy (CNEA) (not the Regulatory Authority) carries on the responsibility of the preparation of the REPORT with a strong interaction of the ARN

IN 1998 THE ARGENTINE GOVERNMENT THROUGH ACT N° 25018 HAS APPOINTED THE CNEA AS THE APPLICATION AUTHORITY FOR MATTERS RELATED TO RADIOACTIVE WASTE MANAGEMENT AND DETERMINED THE OBLIGATION TO DEVELOP A *STRATEGIC PLAN FOR RADIOACTIVE WASTE MANAGEMENT*, SUBJECT TO THE APPROVAL OF THE NATIONAL PARLIAMENT.

JOINT CONVENTION/ MANAGEMENT OF DISUSED SEALED RADIOACTIVE SOURCES

SECTION C LAYS DOWN THE SCOPE OF APPLICATION FOR ARGENTINA OF THE TERMS OF THE JOINT CONVENTION, REGARDING SPENT FUELS, NATURALLY OCCURRING RADIOACTIVE MATERIALS (NORM) AND DISUSED SEALED SOURCES.

ARGENTINA HAS DETERMINED THE SCOPE OF THE INFORMATION TO BE REPORTED WHICH IS IN RELATION WITH ARGENTINA NUCLEAR ACTIVITIES (FOR EXAMPLE: NORMS OUT OF THE FUEL CYCLE ARE NOT INCLUDED)

SECTION J refers to DISUSED SEALED SOURCES

**JOINT CONVENTION/ MANAGEMENT OF DISUSED
SEALED RADIOACTIVE SOURCES
SECCIÓN J. DISUSED SEALED SOURCES**

DESCRIBES:

BASIC REQUIREMENTS ON RADIOLOGICAL SAFETY

***ACTIONS ADDRESSED TO CARRY ON AN ADEQUATE
CONTROL OF DISUSED RADIOACTIVE SOURCES AND IN USE
RADIOACTIVE SOURCES***

SECURITY OF IN USE AND DISUSED RADIOACTIVE SOURCES

***RESPONSIBILITIES IN ABNORMAL EVENTS AND
EMERGENCIES***

***RE ENTRANCE INTO THE COUNTRY OF DISUSED
RADIOACTIVE SOURCES***

JOINT CONVENTION/ MANAGEMENT OF DISUSED SEALED RADIOACTIVE SOURCES

For Argentina IS an organized and very useful way to
share information,

be questioned by other states peers and
identify ways to get a better performance

**AND SUSCRIBING IT IN 1997 ALLOWED TO HAVE THE 1998 LAW
WHICH DESIGNATED CNEA AS THE RESPONSIBLE FOR THE
MANAGEMENT OF RADIOACTIVE WASTE, FOR THE PURPOSE
OF THIS WORKSHOP “DISUSED SOURCES”**

CODE OF CONDUCT ON THE SAFETY AND SECURITY OF RADIOACTIVE SOURCES

**ARGENTINA IS ONE OF THE STATES THAT HAVE DONE A WRITTEN
POLITICAL COMMITMENT WITH THE COMPLIANCE OF THE CODE
EVEN THOUGH IT IS NOT A LEGALLY BINDING DOCUMENT.**

AND COLLABORATED WITH ITS PREPARATION.

**IN THE CASE OF ARGENTINA AND UP TO 2010 IT WAS THE
REGULATORY BODY EXCLUSIVELY, WHICH ASSISTED TO THE
MEETINGS THAT HAVE BEEN DONE.**

**IN 2010 ARGENTINA REPRESENTATIVES OF THE DISPOSAL OF
DISUSED SOURCES FACILITY WERE INCLUDED AND IT WAS
APPRECIATED.**

CODE OF CONDUCT ON THE SAFETY AND SECURITY OF RADIOACTIVE SOURCES IN RELATION WITH THE MANAGEMENT OF DISUSED SOURCES

ARGENTINA HAS THE MEANS TO COMPLY ITS POLITICAL COMMITMENT WITH THE CODE.

TECHNICAL STAFF, BUDGET, LEGAL COMPETENCY, PROCESS OF LICENSING WITH CLEAR IDENTIFICATION OF DUTIES IN RELATION WITH THE SAFETY AND SECURITY OF RADIOACTIVE SOURCES, EMERGENCY GROUP TO ATTEND LOST OF CONTROL OF SOURCES

NATIONAL INVENTORY OF SOURCES BUT BASICALLY HAS

THE FACILITY TO DO THE MANAGEMENT OF THESE SOURCES ORDERED BY LAW AND A PROCESS OF AUTHORIZATION FOR THE DISPOSAL OR THE CUSTODY OF DISUSED SEALED SOURCES IN ORDER TO AVOID ORPHAN SOURCES AND MAINTAIN ADEQUATE SAFETY AND SECURITY CONDITIONS

ARGENTINE conduct ON DISUSED SOURCES

- ARGENTINE'S LAW PROHIBITES TO RECEIVE DISUSED SOURCES FROM ANOTHER COUNTRY/STATE UNLESS THEY ARE PART OF A PROGRAM OF RECYCLING INTO THE COUNTRY**

In Argentina disused cobalt-60 sources are currently recycled into new high activity industrial sources.

For this purpose import of disused sources is also allowed.

WHO HAS HAD A BENEFIT FROM THE USE OF THE SOURCE MUST TAKE CARE OF IT FROM ITS RECEPTION UP TO ITS MANAGEMENT AS A WASTE.

THIS IS A REQUIREMENT FOR THE USER IN ARGENTINA

- RECYCLING IS ENCOURAGED**

THANK YOU....