



**ABACC**

Agência Brasileiro-Argentina de Contabilidade  
e Controle de Materiais Nucleares

Agencia Brasileño-Argentina de Contabilidad  
y Control de Materiales Nucleares

Brazilian-Argentine Agency for Accounting  
and Control of Nuclear Materials



# ABACC 1991 • 2021

RELATÓRIO ANUAL  
INFORME ANUAL  
ANNUAL REPORT

# 2021



# ANNUAL REPORT 2021

MESSAGE FROM THE SECRETARY .....	52
EXECUTIVE SUMMARY .....	54
1. ABACC .....	55
1.1. History and Mission.....	55
1.2. Organization Chart.....	60
2. ABACC'S VERIFICATION ACTIVITIES.....	61
3. COORDINATION OF ACTIVITIES WITH THE IAEA.....	63
4. COORDINATION OF ACTIVITIES WITH ARGENTINA AND BRAZIL .....	64
5. TECHNICAL COOPERATION .....	64
5.1. Technical Cooperation with the IAEA.....	64
5.2. Technical Cooperation with the USA Department of Energy (DoE).....	65
5.3. ABACC – EURATOM/European Community Cooperation .....	65
5.4. ABACC – KINAC Cooperation .....	66
5.5. ABACC – ESARDA Cooperation .....	66
6, TRAINING .....	66
7. INSTITUTIONAL ACTIVITIES .....	67
LIST OF ABBREVIATIONS.....	73

## MESSAGE FROM THE SECRETARY



**Elena Maceiras**  
Secretary

It is with great pleasure that I present the Annual Report of the ABACC for 2021.

I would like to stress that, all through this year, we have pulled out all the stops to continue with the full development of our activities to meet our objectives and technical goals, despite of the ongoing difficulties brought about by the unstable COVID-19 pandemic situation, which has resulted in hybrid, on-site and remote, working procedures, according to the circumstances.

I am, therefore, pleased to say that the Secretariat has fulfilled all the inspection activities foreseen in the Annual Verification Plan, even those that required short-term notification and the so-called “unannounced” inspections, as well as all the necessary technical visits. This was made possible by the professionalism and dedication of all ABACC’s officers, inspectors and employees, and by the support of the two countries’ National Authorities and Ministries of Foreign Affairs.

As a result of the verification and evaluation activities carried out by ABACC, the Secretariat has concluded that the two countries have complied with all the terms of the Bilateral Agreement. I would like to highlight the excellent coordination with the International Atomic Energy Agency (IAEA) for the implementation of the Quadripartite Agreement, which enabled both agencies’ joint activities to be very efficiently carried out in the existing circumstances.

One of the Secretariat’s constant area of constant priority is the provision of adequate training for ABACC’s inspectors. With this in mind, the General Training Course for ABACC Inspectors was given virtually for the first time with excellent results. The experience gained will enable it to be optimized, so that this remote option may possibly be used again in the future.

Another area of constant attention is to maintain and increase the quality of the technical equipment and systems used at the facilities. Therefore, numerous technical visits were made during 2021 to maintain and modernize the current containment and surveillance systems and install new ones in both countries, especially with regards to the nuclear reactors and the dry storages of spent fuels. There have also been investments in the purchase of more modern nuclear material measurement equipment for use during inspections.

As far as the information security policy is concerned, we highlight the substitution of the old server by a latest generation model, enabling faster and more secure information management along with the acquisition of systems to reinforce the security of the notebooks used both during inspections and for home office working.

With respect to the cooperation between ABACC and IAEA for the joint use of equipment, in view of the impossibility of carrying out on-site certification for remote sessions were successfully undertaken involving the two agencies where, for the first time, digital certificates were installed in the new surveillance cameras owned by ABACC and the IAEA.

The nuclear programs of the two countries have expanded and diversified over the last few years, which means that ABACC and IAEA must coordinate the development and application of new safeguards approaches, tasks to which we dedicated special effort and attention during 2021.

In July 2021, ABACC celebrated its 30th anniversary. According to the plan of events agreed with the ABACC Commission, the Secretariat has focused on organizing and carrying out a number of events and on actively participating in technical forums, which contribute to increasing the visibility of ABACC's role as a regional safeguards system and underlining its credibility as a technical body, demonstrating the high level of efficiency and effectiveness attained by its inspection activities.

We thank the members of the ABACC Commission, the Ministries of Foreign Affairs and the National Authorities of the two countries for their continuous support and interest, and the operators of the nuclear facilities for their collaboration. We also thank the Secretariat's officers, inspectors and assistants for the professionalism, dedication and enthusiasm with which they have carried out their work.



## EXECUTIVE SUMMARY

The objective of the Brazilian–Argentine Agency for Accounting and Control of Nuclear Materials (ABACC) is to apply the Common System of Accounting and Control of Nuclear Materials (SCCC), laid down in the Agreement between the Republic of Argentina and the Federative Republic of Brazil for the Exclusively Peaceful Use of Nuclear Energy – Bilateral Agreement. The SCCC is a set of verification and control criteria and procedures to ensure that nuclear materials are not diverted to the manufacture of nuclear weapons or other explosive nuclear devices.

In 2021, ABACC performed and evaluated 107 inspections and 62 technical visits to verify design information at nuclear facilities of both countries. With its focus on increasing the efficiency and effectiveness of the application of SCCC, ABACC has given its inspectors two training courses, one of a general nature and the other specifically dealing with inspection procedures applied to Brazilian uranium enrichment facilities.

It is worth highlighting the development of the remote certification procedure for the ABACC/IAEA joint use surveillance cameras, consolidated in the document “ABACC-IAEA Remotely Witnessed



Joint Keying of NGSS Cameras", that allows through videoconferencing system with high-resolution cameras, the installation of digital certificates that can be satisfactorily witnessed by ABACC.

Finally, in the context of ABACC's 30th anniversary, ABACC has participated in a significant number of events and conferences, and its activities were widely publicized. It is worth mentioning the article "Thirty Years of Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials(ABACC): a unique contribution to the world" published by the Argentinian and Brazilian Ministries of Foreign Affairs as well as the United Nations General Assembly's approval, by consensus, of the resolution 76/52 relating to ABACC, showing the international community's recognition of the important contribution that the ABACC has made towards international non-proliferation and nuclear disarmament.

## 1. LA ABACC

### 1.1 History and Mission

ABACC was created on July 18, 1991, with the signing of the Agreement between the Republic of Argentina and the Federative Republic of Brazil for the Exclusively Peaceful Use of Nuclear Energy (Bilateral Agreement) which entered into force on December 12, 1991, after being approved by the congresses of both countries.

ABACC's mission is to verify that Argentina and Brazil have complied with the commitments laid down in the Bilateral Agreement relative to the exclusively peaceful use of nuclear energy. In order to fulfill its mission, ABACC applies a bilateral safeguards system named the "Common System for Accounting and Control of Nuclear Materials (SCCC)", which establishes the verification criteria and procedures to be applied to all nuclear materials in all nuclear activities in both countries, thus guaranteeing the timely detection of possible diversions of these materials towards the manufacture of nuclear weapons.

This year, 2021, ABACC is celebrating its 30th anniversary. A timeline showing the main events that have marked its history is presented below.

1991

Creation of ABACC by the Agreement between Argentina and Brazil for the Exclusively Peaceful Use of Nuclear Energy (Bilateral Agreement) signed in July and coming into force in December

Signature of the Agreement between Argentina, Brazil, ABACC and the International Atomic Energy Agency (IAEA) for the Application of Safeguards (Quadripartite Agreement)



1993

Cooperation Agreement with the Agency for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (OPANAL)

Mutual Cooperation arrangements with the National Nuclear Energy Commission (CENEN)

## Criação da ABACC >>

1992

Beginning of ABACC's activities and first inspections carried out

Inauguration of ABACC's headquarters in Rio de Janeiro



1994

The Quadripartite Agreement and the General of its Subsidiary Arrangements entered into force

Cooperation Agreement with the United States Department of Energy

First Joint Inspections with the IAEA

Protocol of Cooperation with the National Atomic Energy Commission (CNEA) of Argentina

1996



Protocol of Cooperation with National Nuclear Regulatory Agency in Argentina (today the Nuclear Regulatory Authority – ARN)

1998

Approval of the safeguards approach for the Pilcaniyeu Uranium Enrichment Facility in Argentina

Technical Cooperation Agreement between ABACC and the IAEA

2000



ABACCC completes 1,000 inspections

10 anos ABACC >>

1997

Approval of the document *"Guidelines for Coordination of Routine and Ad-Hoc Inspection Activities between the Agency and ABACC"*

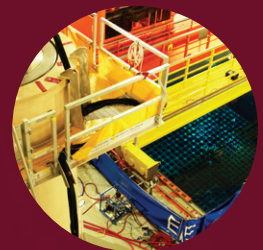


1999

Cooperation Agreement with the European Atomic Energy Community (EURATOM)

2001

Approval of the safeguards approach for the ARAMAR Isotope Enrichment Laboratory in Brazil



2004

Approval of the safeguards approach for the ARAMAR Enrichment Demonstration Plant in Brazil



2007

Implementation of the Joint Auditing of Records System (SJAR) developed by ABACC for carrying out joint accounting audits with the IAEA

ABACC's first international publication on the gaseous UF<sub>6</sub> sampling method using alumina pellets (ABACC-Cristallini Method)

2009

ABACC completes 2,000 inspections



20 anos ABACC >>

2006

Approval of the safeguards approach for the INB Uranium Enrichment Plant in Brazil

Cooperation Agreement between ABACC and the Korea Institute of Nuclear Non-Proliferation and Control (KINAC)

2008

Beginning of the Short Notice Random Inspections (SNRI) at the conversion and fabrication facilities in Argentina and Brazil



2013

Launching of the cooperation project between ABACC and the European Commission on technologies for safeguards application



2016

Successful conclusion of the international validation program for the ABACC-Cristallini Method by laboratories of excellence in Argentina, Brazil, Germany, Belgium, United States, France and the IAEA

Beginning of the process to modernize the surveillance systems with "Next Generation Surveillance Systems" for joint use by ABACC and IAEA

2018

Beginning by ABACC the development of the New Software for Joint Auditing of Records (NSJAR)

ABACCC completes 3,000 inspections

2020

Beginning of joint routine use of the NSJAR by ABACC and IAEA

ABACC fulfilled 100% of its Annual Verification Plan despite of the restrictions and difficulties caused by the COVID-19 pandemic

## 30 anos ABACC

2017

Implementation of the remote transmission of the State of Health (SoH) to ABACC headquarter of surveillance systems and other components to ABACC's headquarters for facilities in Brazil and Argentina

2019

Certification of the ABACC-Cristallini Method for  $UF_6$  sampling by the American Society for Testing and Materials (ASTM International)

ABACC is chosen as one of the relevant institutions for the training of fellows of the United Nations Office for Disarmament Affairs – UNODA - and first fellows visit the ABACC

2021

First joint remote certification of surveillance cameras for common use by ABACC and IAEA

Approval by consensus of the Resolution of the General Assembly of the United Nations that recognizes the contribution of ABACC to the international regime of non-proliferation and nuclear disarmament

30 years of application of the SCCC

## 1.2 Organization Chart

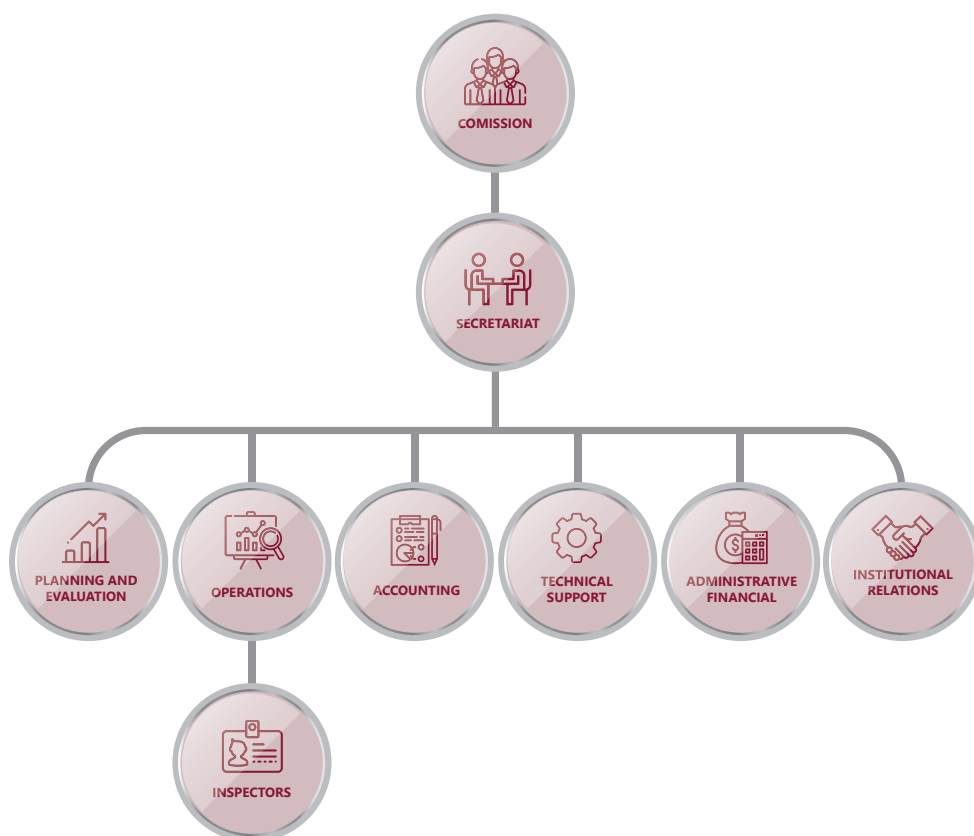
ABACC's organizational chart is shown below.

The Commission, which is ABACC's policy making body, is composed of four members with two nominated by each country

The Secretariat is ABACC's executive body. It is composed of twelve senior officers, six Argentinians and six Brazilians. The Secretary and Deputy Secretary, who alternate annually in the performance of their duties, are the highest-ranking officers in the hierarchy. They are responsible for ensuring that SCCC's control and verification activities are fulfilled efficiently and effectively.

Ten administrative and auxiliary staff support the routine activities that are necessary for the good functioning of the Secretariat.

The inspectors, nominated by the respective countries and appointed by the ABACC Commission, are not full-time employees of the agency, but are called for specific inspection missions, during which they are considered ABACC's employees. The inspectors are senior technical staff of the nuclear fuel cycle industry and nuclear regulatory organizations of the two countries, which enables them to carry out inspections more effectively. ABACC inspectors of Argentinean nationality carry out inspections at the Brazilian facilities and ABACC inspectors of Brazilian nationality at the Argentinian facilities. In 2021, there were 46 Argentinian and 51 Brazilian ABACC inspectors convened to fulfil ABACC's inspection plan.



## 2. ABACC'S VERIFICATION ACTIVITIES

The chart below presents the facilities subjected to verification by ABACC.

TYPE OF FACILITY	ARGENTINA	BRAZIL	TOTAL
Conversion and Fuel Fabrication	9*	2	11
Uranium Enrichment	2	3	5
Power Reactors	5*	3*	8
Research Reactors / Critical and Sub Critical Units	6*	7*	13
Others (Research & Development Facilities, Storage Units, etc.)	28	10*	38
<b>TOTAL</b>	<b>50</b>	<b>25</b>	<b>75</b>



\* Uma em construção

In 2021, ABACC performed and evaluated 107 inspections and 62 technical visits to verify design information at nuclear facilities of both countries. The inspections effort required a total of 1136 inspector-days, made up of in-field activities and pre- and post-inspection activities.

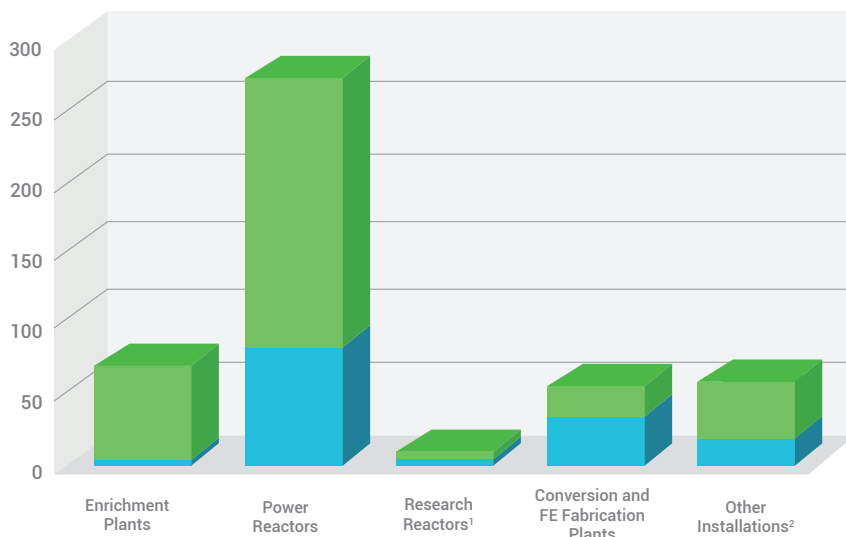
During the inspections, as well as carrying out 1545 non-destructive measurements and 169 weighing, a total of 38 samples of nuclear material were collected in Argentina and Brazil to determine the element uranium and the U-235 isotope in the in the ABACC network of analytical laboratories. Furthermore, a total of 34 environmental swipe samples were taken in the two countries to be analyzed for uranium particles.

To control the nuclear material at the two countries' facilities, a total of 1043 seals have been applied and 44 ABACC surveillance cameras have been used. Eight technical missions for the installation and preventive or corrective maintenance of measuring equipment and contention and surveillance systems have been carried out.

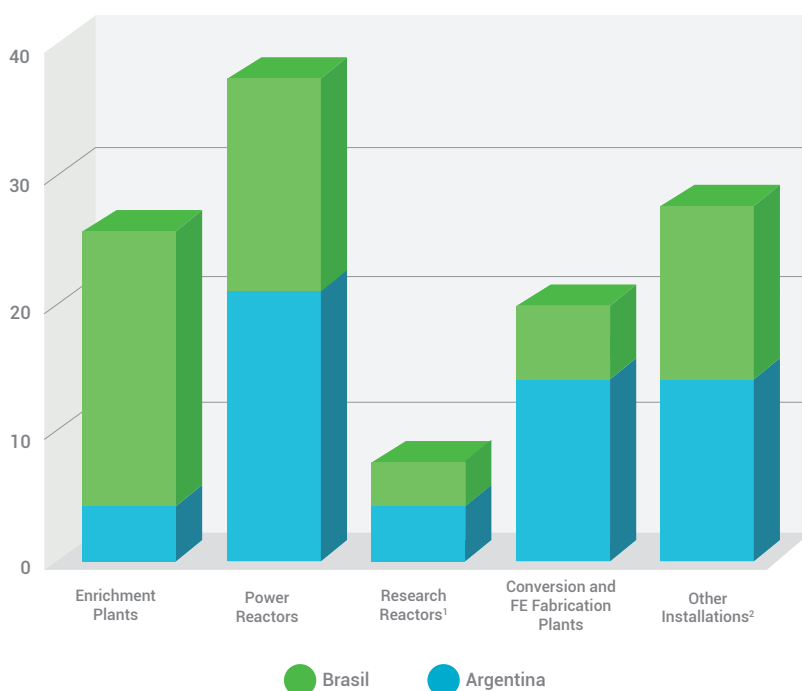
The following charts show the verification effort and the number of inspections performed by type of facility. It is worth noting that nuclear power reactors are the ones requiring the highest inspection effort in Brazil this year, due to the transfers of spent fuel assemblies from the Almirante Álvaro Alberto Nuclear Plant (CNAAA) – Unit 2 to the Complementary Dry Storage Unit (UAS) at CNAAA, followed by the uranium enrichment plants. On the other hand, in Argentina most of the effort takes place in the power reactors and the conversion and fabrication plants.

509 accounting reports received from Argentina and Brazil were processed, and 88 accounting audits were carried out at nuclear facilities. At the end of 2021, the total inventory of material in the two countries registered an increase of 4.4% in significant quantities over the previous year.

### VERIFICATION EFFORT BY TYPE OF FACILITY (INSPECTORS X DAYS) - 2021



### NUMBER OF INSPECTIONS BY TYPE OF FACILITY - 2021



1. Includes Critical and Subcritical Assemblies

2. Includes Laboratories, Storages, R&D, Production of Radioisotopes etc.

SCCC's verification procedures were developed and implemented for the two spent fuel transfer campaigns from the Angra 2 Nuclear Power Plant to the UAS, with an inspection effort of 139 on-site inspector-days.

A remote State of Health (SoH) verification system has been installed and is in operation for the measurement equipment and surveillance systems at the Embalse Nuclear Power Plant. It is worth mentioning that this system was already operational at the Angra 2 and Atucha II nuclear power plants.

It must be stressed that all the logistics problems resulting from the access and travel restrictions caused by the pandemic have been solved, above all due to the professionalism and dedication of all ABACC's staff ABACC inspectors, and the support of the National Authorities and Ministries of Foreign Affairs in the two countries. Such factors have enabled ABACC to perform all the inspections and verifications necessary for fulfilling its mission.

### 3. COORDINATION OF ACTIVITIES WITH THE IAEA

In accordance with the provisions set out in the agreement between the Republic of Argentina, the Federative Republic of Brazil, the Brazilian Argentine Agency for Accounting and Control of Nuclear Materials and the International Atomic Energy Agency for the Application of Safeguards, the "Quadripartite Agreement", ABACC coordinates its verification activities with those of the IAEA to the maximum to minimize the unnecessary duplication of efforts.

With this aim, ABACC and IAEA share containment, surveillance, detection and measurement systems under the concept of "joint use" and develop inspection procedures for the nuclear facilities subject to the SCCC and the IAEA safeguards, which contribute to optimizing the effectiveness of the respective safeguards.

In 2021, ABACC and the IAEA held ten virtual bilateral technical meetings with the respective national authorities to discuss specific issues on the implementation of safeguards in the facilities of both countries.

As laid down in the Quadripartite Agreement, the 19th meeting of the Liaison Sub-Committee was held in Argentina. The 35th Coordination Meeting between ABACC and the IAEA was also held, albeit in a virtual format. These meetings take place annually, in order to assess the status of the implementation of safeguards and to improve the verification activities for nuclear materials and facilities.

## 4. COORDINATION OF ACTIVITIES WITH ARGENTINA AND BRAZIL

According to the terms set out in the Agreement between the Republic of Argentina and the Federative Republic of Brazil - the Bilateral Agreement – the two countries cooperate with ABACC for the satisfactory accomplishment of its mission.

In 2021, ten technical meetings were held, by videoconference, with the national authorities to discuss specific issues on the implementation of safeguards in installations in both countries, including coordination meetings within the framework of the Quadripartite Agreement.

It is also important to highlight the cooperation of both countries as per providing design information of nuclear facilities and for taking the necessary actions for the development of safeguards and verification approaches and procedures, the technical cooperation for testing equipment and new technologies, as well as their technical support in the fields of destructive and non-destructive assays.

## 5. TECHNICAL COOPERATION

Cooperation with institutions which work in the area of nuclear safeguards is relevant for the exchange of information on safeguarding concepts and techniques and for the development of projects of interest to ABACC, in order to contribute to increasing the efficiency and effectiveness of its activities.

ABACC holds technical cooperation agreements with institutions in Argentina, Brazil, the European Community, the United States, South Korea and with the IAEA. To mitigate the impact of the pandemic Covid19, ABACC has maintained interactions with its counterparts through virtual technical meetings, as follows:

### 5.1 Technical Cooperation with the IAEA



Active participation in the IAEA “International Target Values” (ITV 2020) analysis working groups for destructive and non-destructive tests.



Continued monitoring the activities for the implementation of the “ABACC-Cristallini” Method for UF<sub>6</sub> sampling in conversion and enrichment facilities, including actions for the IAEA approval for its routine use.

## 5.2 Technical Cooperation with the USA Department of Energy (DoE)



23rd Permanent Coordinating Group Meeting between the ABACC and the United States Department of Energy - DoE



The 23<sup>rd</sup> Meeting of the Permanent Coordinating Group (PCG) was held and several cooperative actions in the area of inspectors training, non-destructive measurements, and performance assessment of the analytical laboratories of ABACC's network in Argentina and Brazil, which carry out destructive analysis of nuclear materials for ABACC evaluations, were reviewed.

## 5.3 ABACC – EURATOM/European Community Cooperation



Meeting ABACC and EURATOM



Meetings were held with the EURATOM safeguards directorate, with a view to identifying new technical areas of mutual interest for cooperation.

## 5.4 ABACC – KINAC (Korea Institute of Nuclear Non-Proliferation and Control) Cooperation



Annual Meeting ABACC – KINAC (Korea Institute of Nuclear Non-Proliferation and Control)



A meeting was held to share information about the activities developed by both organizations and to exchange experiences about technical issues of joint interest in areas of safeguards application.

## 5.5 ABACC – ESARDA (European Research and Development Association) Cooperation



Interactions continued with the signing of a Memorandum of Understanding (MoU) to enhance the cooperation between the two institutions in matters of mutual interest. In December, the proposal presented was approved by Executive Board of ESARDA.

# 6. TRAINING

Training courses for inspectors enable ABACC to maintain a high level of effectiveness of its inspections. The training courses given in 2021 are described below.



From September 13 to 17, a General Course for ABACC Inspectors was held virtually. Thirteen ABACC inspectors and 11 observers, of both nationalities were trained by ABACC.



From October 4 to 8, a Course on Inspection Procedures Applied to Brazilian Uranium Enrichment Installations was held in person. Four ABACC inspectors of Argentine nationality and five IAEA inspectors participated in the course. In addition to the ABACC instructors, two from the IAEA, one from the CTMSP and one from the INB also participated. In addition of ABACC's instructors, staff from the IAEA, CTMSP and INB have also participated as trainers.

## 7. INSTITUTIONAL ACTIVITIES

ABACC's participation in international forums contributes to the dissemination of its activities and the exchange of information and experiences with representatives of other organizations.

ABACC participated in the first (virtual) Joint Meeting of the "Institute of Nuclear Materials Management" (INMM) and the "European Research and Development Association" (ESARDA), from August 23 - 26 and from August 30 - September 1, presenting seven articles:

- 30 years of ABACC – A regional safeguards system in the framework of international safeguards and nuclear cooperation for peaceful purposes;
- Progress in the implementation of the ABACC-Cristallini UF6 Sampling Method;
- Modernization of ABACC's Accounting Data Bases;
- The New Software for Joint Auditing of Records ABACC – IAEA;
- ABACC's Experience on Using Medium Resolution Gamma-ray Spectrometry Based on Lanthanum Bromide Detectors for Uranium Enrichment Measurements;
- Safeguards Implementation by ABACC during the Covid-19 Pandemic; and
- Four Years of Experience on State of Health (SoH) Remote Data Transmission of Surveillance Systems Applied to Nuclear Power Reactors in Brazil and Argentina.

Also at this event, ABACC proposed and organized the panel "Cooperation in Safeguards Implementation: Lessons Learned and Opportunities for Improvement" to discuss regional and international safeguards cooperation. Participants included the IAEA Deputy Director General of Safeguards, the Deputy Secretary of ABACC, the EURATOM Safeguards Director, the President of INMM and the President ESARDA. The Panel was chaired by the Secretary of ABACC.

The Deputy Secretary of ABACC participated in the INMM International Safeguards Technical Division (ISD) meeting and presented the achievements of ABACC during the pandemic, highlighting the cooperation between the countries and ABACC-IAEA cooperation enabling compliance with the 2021 inspection plan.

The ABACC Planning and Evaluation Officer of Argentine nationality, took part in the panel "Advancing Together: Insights from Collaborative Leaders" and presented ABACC's main activities and its cooperation with such institutes as INMM and ESARDA.

ABACC also participated in several thematic sessions such as the ASC N15 Committee Meeting concerned with rules and guidelines for analytical measurements and non-destructive analysis for safeguards.

ABACC also participated in the following events, listed in chronological order:

- Launch of the policy paper: "Nuclear Verification in a Middle East WMD-Free Zone: Lessons learned from past verification cases", organized by UNIDIR, January 26.
- Celebration of the 3<sup>rd</sup> Anniversary of the Naval Agency for Nuclear Safety and Quality, February 5, in Rio de Janeiro.
- "Workshop on Nuclear Disarmament Verification (virtual)", organized by the NPS Global Foundation and by the London-based Verification Research, Training and Information Centre (VERTIC), February 9. The ABACC Secretary participated as an observer.
- Celebration of the 54<sup>th</sup> Anniversary of the Treaty of Tlatelolco, organized by Agency for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (OPANAL), on February 15. The ABACC Secretary participated in the event and was invited to send a video message.
- "International Workshop on Isotopic Analysis of Uranium and Plutonium by Nondestructive Assay Techniques for Nuclear Safeguards" (virtual), organized by IAEA, from February 16 to 26. ABACC presented a technical study entitled "Application of the NaI GEM Code for Uranium Enrichment Measurements by Gamma-Ray Spectrometry using Lanthanum Bromide Detectors" and participated in the round table: "Application of Medium Resolution Gamma-Ray Spectrometry (MRGS) Systems for the Analysis of Uranium and Plutonium: Present Situation and Future Challenges".
- Interventions by the Secretaries, virtually, in the thematic debate about ABACC on the occasion of its 30<sup>th</sup> Anniversary celebrations, during the formal plenary session of the Disarmament Conference, on March 9. The event was chaired by Ambassador Gonalo Mello Mourão, Special Representative for Brazil at the Disarmament Conference and was closed by Ambassador Federico Villegas, Permanent Representative for Argentina at the Office of the United Nations in Geneva.
- "3<sup>rd</sup> Workshop on Nuclear Disarmament Verification (virtual)", organized by NPS Global Foundation and by the London-based Verification Research, Training and Information Centre (VERTIC), April 14. The ABACC Secretary participated as an observer.
- Nuclear Disarmament Seminar (virtual), organized by Pugwash Brazil, April 15. The Deputy Secretary of ABACC participated as speaker in the session on the Treaty on the Non-Proliferation of Nuclear Weapons (TNP).
- Event at the INPRO Dialogue Forum "Partnerships for Nuclear Development and Deployment", May 18 (virtual), where the origin and contribution of the ABACC model were highlighted.
- Workshop: "Latin American and Caribbean Regional Event on Ensuring Nuclear Safeguards Continuity during Unexpected Events" (virtual) organized by NNSA-DoE. The Brazilian Operations

Officer gave a talk on ABACC's experience in continuing with inspections during the COVID-19 pandemic, May 26 to 27.

- Meeting of IAEA Board of Governors, virtual, June 7 to 11.
- Virtual information session for the Group of Government Specialists (GGS) on the verification of nuclear disarmament, on June 23, organized by The United Nations Institute for Disarmament Research (UNIDIR). The Deputy Secretary of ABACC participated as speaker.
- Event held at the Itamaraty Palace in Rio de Janeiro, to celebrate ABACC's 30<sup>th</sup> Anniversary, with the participation of high-ranking authorities from both countries, and high-level regional and international representatives, on July 19.
- Virtual event: "Pathways for expanding peaceful uses of nuclear energy and nuclear technology in Latin America and the Caribbean", organized by Wilton Park, August 10 to 12. The Deputy Secretary gave a talk entitled "Latin America & the Caribbean: Non-Proliferation & Safeguards".



Commemoration of the 30th Anniversary of ABACC



Commemoration of the 30th Anniversary of ABACC



Commemoration of the 30th Anniversary of ABACC



Commemoration of the 30th Anniversary of ABACC



Commemoration of the 30th Anniversary of ABACC



Commemoration of the 30th Anniversary of ABACC

- 5<sup>th</sup> Virtual Meeting of the joint project “Building Capacity on Multilateral Verification of Nuclear Disarmament”, coordinated by the NPS Global Foundation and VERTIC, September 15<sup>th</sup> (virtual). The ABACC Secretary participated as an observer.
- 65<sup>th</sup> Session of the IAEA General Conference (GC), from September 20 to 24, in Vienna. On September 22, the ABACC Secretary issued a statement at the plenary session highlighting the importance of the creation of ABACC, its coordination of activities with IAEA and the activities carried out in 2021.
- Side Event: “Celebration of the 30<sup>th</sup> Anniversary of the Agency for Accounting and Control of Nuclear Materials (ABACC)”, organized by ABACC and by the Permanent Representations of Argentina and Brazil at the IAEA, September 21, in the margins of the 65<sup>th</sup> CG, in Vienna.
- Event: “Women in Nuclear ARCAL – Regional Capital”, the ABACC Secretary participated in the panel “Challenges in Promoting Gender Equality in Different Thematic Areas”, September 24, in Vienna.
- Meeting of the ABACC delegation with Rafael Mariano Grossi, the IAEA Director General, at the 65<sup>th</sup> CG, to deal with matters of interest to both agencies, September 24, in Vienna.
- 27<sup>th</sup> (virtual) Session of the Agency for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (OPANAL). The ABACC Secretary issued a statement relating to the agenda item “Interventions of Member States and Observers, on September 30.

65<sup>th</sup> IAEA General Conference65<sup>th</sup> IAEA General Conference

Women in Nuclear ARCAL – Regional Chapter

- Virtual discussion “Mujeres Argentinas en No Proliferación Nuclear”, organized by the Argentine Nuclear Regulatory Authority, on October 14. The Secretary and the Argentine Planning and Evaluation Officer participated as panelists in the event, whose deliberations and conclusions drawn were reflected in the manual entitled “ No proliferación nuclear – Mujeres, liderazgo y redes en Argentina”.
- Signing Ceremony of the 1<sup>st</sup> Partial Construction License for a Conventional Nuclear-Powered Submarine, held at the Brazilian Navy's Directorate-General of Nuclear and Technological Development, in Rio de Janeiro, on November 25.
- 10<sup>th</sup> International Nuclear Atlantic Conference - INAC 2021, virtual, promoted by the Brazilian Nuclear Power Association (ABEN), from November 29 to December 2. The Deputy Secretary participated in the roundtable at the opening of the event. ABACC also participated in EXPO INAC 2021 with a virtual stand.



XXVII Session of the General Conference of the Agency for the Prohibition of Nuclear Weapons in Latin America and the Caribbean - OPANAL



10<sup>th</sup> International Nuclear Atlantic Conference - INAC 2021



Ceremony of the Signing of the 1st Partial License for the Construction of the Brazilian Conventional Submarine with Nuclear Propulsion

## LIST OF ABBREVIATIONS

ABACC	Brazilian–Argentine Agency for Accounting and Control of Nuclear Materials
ABEN	Brazilian Nuclear Power Association
IAEA	International Atomic Energy Agency
ANSNQ	Naval Agency for Nuclear Safety and Quality
GC	General Conference
CNAEA	Almirante Álvaro Alberto Nuclear Plant
DDG	Deputy Director General
DoE	United States Department of Energy
ESARDA	European Safeguards Research & Development Association
EURATOM	European Atomic Energy Community
GGS	Group of Government Specialists
INAC	International Nuclear Atlantic Conference
INMM	Institute of Nuclear Materials Management
ISD	International Safeguards Technical Division
ITV	International Target Value
KINAC	Korea Institute of Nuclear Non-Proliferation and Control
MoU	Memorandum of Understanding
NPS Global	Nonproliferation for Global Security Foundation
OPANAL	Agency for the Prohibition of Nuclear Weapons in Latin America and the Caribbean
PCG	Permanent Coordinating Group
SCCC	Common System for Nuclear Materials Accounting and Control
SJAR	Software for Joint Auditing of Records
SNRI	Short Notice Random Inspection
SoH	State of Health
TNP	Treaty on the Non-Proliferation of Nuclear Weapons
U-235	Uranium 235
UAS	Complementary Dry Storage Unit
UF <sub>6</sub>	Uranium Hexafluoride
UNIDIR	United Nations Institute for Disarmament Research
VERTIC	Verification Research, Training and Information Centre

**IMPRESSO**



**ABACC**

Avenida Rio Branco, 123 - 5º andar  
Rio de Janeiro - RJ - Brasil  
CEP 20040-005

[www.abacc.org.br](http://www.abacc.org.br)