FOREWORD

by IAEA Director General Rafael Mariano Grossi

In 2023, as we marked the 70th anniversary of US President Dwight D. Eisenhower's famous 'Atoms for Peace' speech, the International Atomic Energy Agency remained as relevant as ever through its indispensable work in safety, security and safeguards and in expanding access to the lifesaving and life-affirming uses of nuclear science and technology across the globe.

In October, I launched Atoms4Food together with the Director-General of the Food and Agriculture Organization of the United Nations. The initiative looks at the needs of individual Member States and harnesses our experience in using nuclear techniques and technologies to enhance food security and nutrition. At the same time, we continued to implement existing key initiatives such as Rays of Hope, ZODIAC and NUTEC Plastics.

Our efforts to refurbish the unique and critically important facilities and laboratories at Seibersdorf achieved a milestone when, in November, we were able to announce the completion of all major fundraising for ReNuAL2. Just a few weeks before, we had been in Seibersdorf for the opening of the Agency's new Nuclear Security Training and Demonstration Centre, which will assist Member States in tackling nuclear terrorism and crime.

An important part of our work in 2023 was to ensure transparency around the discharge of ALPS-treated water from Fukushima Daiichi NPP. In July, I presented to Prime Minister Fumio Kishida of Japan an Agency report that found the discharge approach to be consistent with international safety standards. The results of the Agency's independent sampling and analysis of the water indicate tritium levels well below Japan's operational limits.

Another key priority was to support Ukraine's nuclear safety and security as the war stretched into its second year. Some 86 Agency missions comprising 187 staff travelled to Ukraine and over €7.5 million worth of equipment was delivered. The Agency maintained an uninterrupted presence at all five nuclear sites in Ukraine and, in May, I presented to the UN Security Council the five principles for protecting nuclear safety and security at Zaporizhzhya NPP.

I am confident that we will look back at 2023 as a milestone in the transition to net zero. At COP28, leaders for the first time backed investment in nuclear as a low-carbon energy source. Key to making this happen is that governments establish the appropriate conditions.

Small modular reactors (SMRs) will play an important role, including in developing countries, but only once they move from development to deployment. In 2023, our Nuclear Harmonization and Standardization Initiative (NHSI), which supports the timely and safe deployment of SMRs, made concrete progress in highlighting approaches to getting this done.

The nuclear sector still has some way to go in terms of gender equality and I am determined that the Agency will be part of the solution. By the end of 2023, the IAEA Marie Skłodowska-Curie Fellowship Programme had 560 fellows and we had launched the Lise Meitner Programme, offering early- and mid-career women in the nuclear sector new opportunities for career advancement. We also progressed towards gender equality in the Secretariat. Gender balance was achieved in senior management while in the Professional and higher categories, 44% of positions were held by women.

In closing, let me touch on the future, where fusion energy no longer seems the far-flung prospect it once was. At the 29th IAEA Fusion Energy Conference, I launched the World Fusion Energy Group, which will bring together key stakeholders on the next leg of the journey from experimentation to demonstration to deployment.

As this report shows, the Agency is maximizing its impact efficiently and sustainably, proving an invaluable asset to its 178 Member States seven decades after it was first envisioned.

Rafael Mariano Grossi
IAEA DIRECTOR GENERAL

IAEA
International Atomic Energy Agency

IAEA ANNUAL REPORT 2023

Article VI.J of the Agency's Statute requires the Board of Governors to submit "an annual report to the General Conference concerning the affairs of the Agency and any projects approved by the Agency".

This report covers the period 1 January to 31 December 2023.

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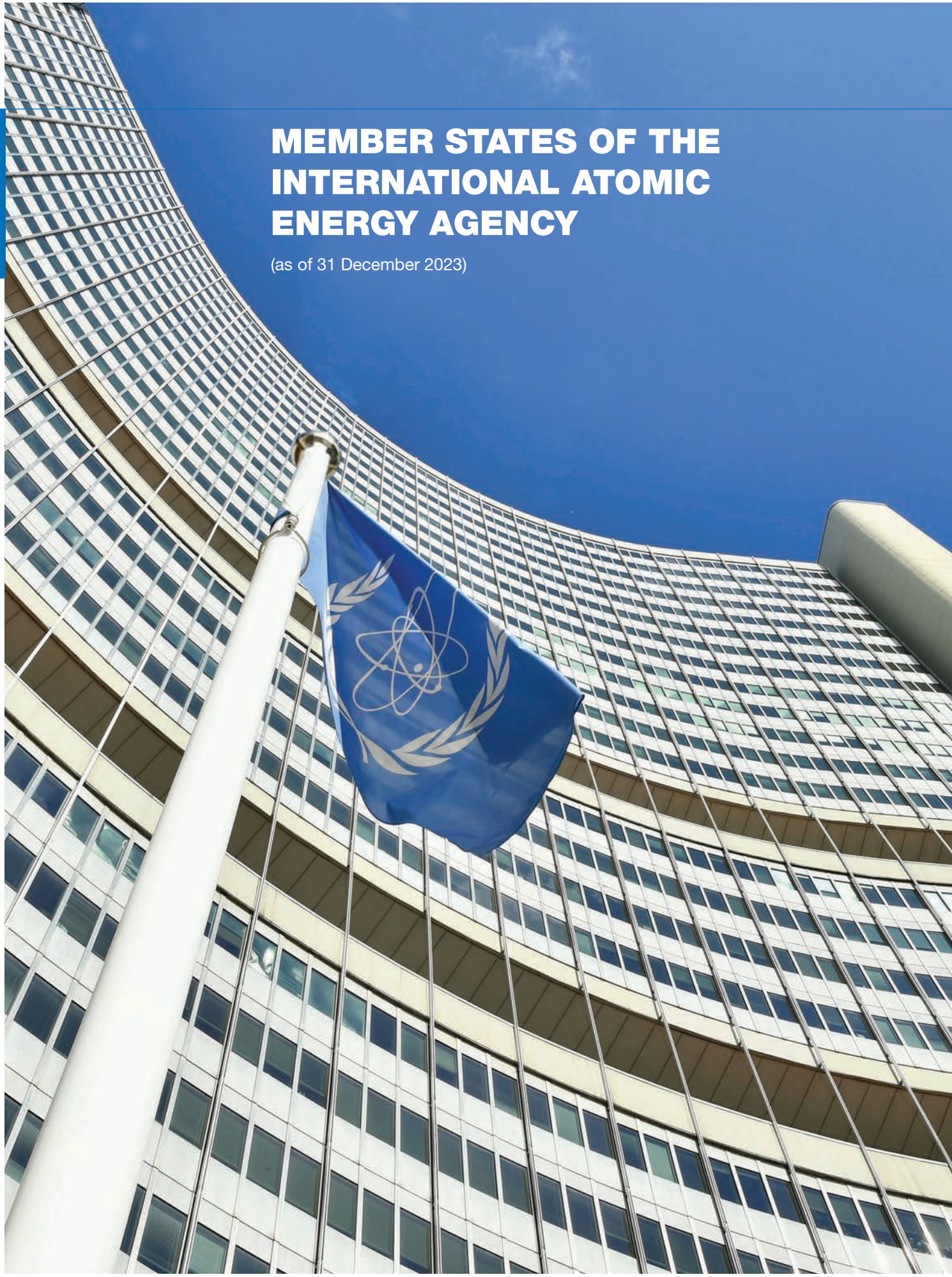
MEMBER STATES OF THE INTERNATIONAL ATOMIC ENERGY AGENCY

(as of 31 December 2023)



AFGHANISTAN
ALBANIA
ALGERIA
ANGOLA
ANTIGUA AND BARBUDA
ARGENTINA
ARMENIA
AUSTRALIA
AUSTRIA
AZERBAIJAN
BAHAMAS
BAHRAIN
BANGLADESH
BARBADOS
BELARUS
BELGIUM
BELIZE
BENIN
BOLIVIA, PLURINATIONAL STATE OF
BOSNIA AND HERZEGOVINA
BOTSWANA
BRAZIL
BRUNEI DARUSSALAM
BULGARIA
BURKINA FASO
BURUNDI
CABO VERDE
CAMBODIA
CAMEROON
CANADA
CENTRAL AFRICAN REPUBLIC
CHAD
CHILE
CHINA
COLOMBIA
COMOROS
CONGO
COSTA RICA
CÔTE D'IVOIRE
CROATIA
CUBA
CYPRUS
CZECH REPUBLIC
DEMOCRATIC REPUBLIC OF THE CONGO
DENMARK
DJIBOUTI
DOMINICA
DOMINICAN REPUBLIC
ECUADOR
EGYPT
EL SALVADOR
ERITREA
ESTONIA
ESWATINI
ETHIOPIA
FIJI
FINLAND
FRANCE
GABON
GAMBIA, THE
GEORGIA
GERMANY
GHANA
GREECE
GRENADA
GUATEMALA
GUINEA
GUYANA
HAITI
HOLY SEE
HONDURAS
HUNGARY
ICELAND
INDIA
INDONESIA
IRAN, ISLAMIC REPUBLIC OF
IRAQ
IRELAND
ISRAEL
ITALY
JAMAICA
JAPAN
JORDAN
KAZAKHSTAN
KENYA
KOREA, REPUBLIC OF
KUWAIT
KYRGYZSTAN
LAO PEOPLE'S DEMOCRATIC REPUBLIC
LATVIA
LEBANON
LESOTHO
LIBERIA
LIBYA
LIECHTENSTEIN
LITHUANIA
LUXEMBOURG
MADAGASCAR
MALAWI
MALAYSIA
MALI
MALTA
MARSHALL ISLANDS
MAURITANIA
MAURITIUS
MEXICO
MONACO
MONGOLIA
MONTENEGRO
MOROCCO
MOZAMBIQUE
MYANMAR
NAMIBIA
NEPAL
NETHERLANDS, KINGDOM OF THE
NEW ZEALAND
NICARAGUA
NIGER
NIGERIA
NORTH MACEDONIA
NORWAY
OMAN
PAKISTAN
PALAU
PANAMA
PAPUA NEW GUINEA
PARAGUAY
PERU
PHILIPPINES
POLAND
PORTUGAL
QATAR
REPUBLIC OF MOLDOVA
ROMANIA
RUSSIAN FEDERATION
RWANDA
SAINT KITTS AND NEVIS
SAINT LUCIA
SAINT VINCENT AND THE GRENADINES
SAMOA
SAN MARINO
SAUDI ARABIA
SENEGAL
SERBIA
SEYCHELLES
SIERRA LEONE
SINGAPORE
SLOVAKIA
SLOVENIA
SOUTH AFRICA
SPAIN
SRI LANKA
SUDAN
SWEDEN
SWITZERLAND
SYRIAN ARAB REPUBLIC
TAJIKISTAN
THAILAND
TOGO
TONGA
TRINIDAD AND TOBAGO
TUNISIA
TÜRKİYE
TURKMENISTAN
UGANDA
UKRAINE
UNITED ARAB EMIRATES
UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND
UNITED REPUBLIC OF TANZANIA
UNITED STATES OF AMERICA
URUGUAY
UZBEKISTAN
VANUATU
VENEZUELA, BOLIVARIAN REPUBLIC OF
VIET NAM
YEMEN
ZAMBIA
ZIMBABWE

The Agency's Statute was approved on 23 October 1956 by the Conference on the Statute of the IAEA held at United Nations Headquarters, New York; it entered into force on 29 July 1957. The Headquarters of the Agency are located in Vienna.

(as of 31 December 2023)

THE AGENCY AT A GLANCE

2555
professional and general service staff

€136.62 million
extrabudgetary expenditures in 2023

€421.41 million
total Regular Budget for 2023*

11
multilateral conventions

178
Member States

150 countries and territories received support through the Agency's technical cooperation programme

35 least developed countries included

* At the United Nations average rate of exchange of US $0.925 to €1.00. The total Regular Budget was €425.79 million at the US $1.00 to €1.00 rate.

1
Headquarters
· Vienna

2
liaison offices
· New York
· Geneva

15
international laboratories
· Vienna
· Seibersdorf
· Monaco

2
safeguards regional offices
· Tokyo
· Toronto

States with safeguards agreements in force

190

of which **142** States had additional protocols in force

active technical cooperation projects

1104

active coordinated research projects to develop new technology

139

active IAEA Collaborating Centres

designated Member State institutions supporting Agency activities

71

17.8 million website visits

60.1 million social media views

3.2 million accesses to **110** publications in English

11 international conferences

88 publications in other languages

THE BOARD OF GOVERNORS

The Board of Governors oversees the ongoing operations of the Agency. It comprises 35 Member States and generally meets five times a year, or more frequently if required for specific situations.

In the area of nuclear technologies, in the course of 2023 the Board considered the *Nuclear Technology Review 2023*.

In the area of safety and security, the Board discussed the *Nuclear Safety Review 2023* and the *Nuclear Security Review 2023*.

In March 2023, the Board appointed the Director General for a further four-year term of office, from 3 December 2023 to 2 December 2027.

As regards verification, the Board considered the *Safeguards Implementation Report for 2022*. The Board considered the Director General's reports on verification and monitoring in the Islamic Republic of Iran in light of United Nations Security Council resolution 2231 (2015). The Board also considered the Director General's reports on naval nuclear propulsion: Australia and naval nuclear propulsion: Brazil, respectively. The Board kept under its consideration the implementation of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) Safeguards Agreement in the Syrian Arab Republic and the application of safeguards in the Democratic People's Republic of Korea and considered the Director General's respective reports thereon. The Board also kept under its consideration the issue of the NPT Safeguards Agreement with the Islamic Republic of Iran and considered the Director General's reports thereon.

The Board considered the Director General's reports on nuclear safety, security and safeguards in Ukraine.

The Board discussed the *Technical Cooperation Report for 2022* and approved funding for the Agency's technical cooperation programme for 2024.

The Board considered IAEA safeguards in relation to AUKUS; and the restoration of sovereign equality in the Agency.

In June 2023, the Board approved the recommendations contained in the proposal to the Board of Governors by the co-chairs of the Working Group on the Regular Budget and the Technical Cooperation Fund Targets for 2024–2025.

70 reports considered

129 hours of meetings

1814 statements delivered

COMPOSITION OF THE BOARD OF GOVERNORS 2023–2024

35 Board members

CHAIR

HE Mr Holger Federico MARTINSEN

(Governor from Argentina)

VICE-CHAIRS

HE Ms Emilia KRALEVA

(Governor from Bulgaria)

HE Mr Peter POTMAN

(Governor from the Kingdom of the Netherlands)

Algeria
Argentina
Armenia
Australia
Bangladesh
Brazil
Bulgaria
Burkina Faso
Canada
China
Costa Rica
Denmark
Ecuador
Finland
France
Germany
India
Indonesia
Japan
Kenya
Korea, Republic of
Namibia
Netherlands, Kingdom of the
Paraguay
Qatar
Russian Federation
Saudi Arabia
Singapore
South Africa
Spain
Türkiye
Ukraine
United Kingdom of Great Britain and Northern Ireland
United States of America
Uruguay

THE GENERAL CONFERENCE

The General Conference comprises all Member States of the Agency and usually meets once a year, in regular session.

In January 2023, the General Conference convened a special session, at the request of the Board of Governors, for the purpose of approving *The Agency's Draft Budget Update for 2023 (Revised)*, in accordance with Article XIV.A of the Statute. The draft budget update was duly approved.

In its regular session in September 2023, the General Conference approved the appointment of the Director General from 3 December 2023 to 2 December 2027, and adopted resolutions on the Agency's financial statements for 2022; on the Agency's budget for 2024; on nuclear and radiation safety; on nuclear security; on strengthening the Agency's technical cooperation activities; on strengthening the Agency's activities related to nuclear science, technology and applications, comprising non-power nuclear applications, nuclear power applications and nuclear knowledge management; on strengthening the effectiveness and improving the efficiency of Agency safeguards; on the implementation of the NPT Safeguards Agreement between the Agency and the Democratic People's Republic of Korea; on the application of IAEA safeguards in the Middle East; on the status of Palestine in the IAEA; on restoration of the sovereign equality of Member States in the IAEA; on nuclear safety, security and safeguards in Ukraine; and on staffing of the Secretariat and women in the Secretariat. The Conference also adopted decisions on the progress made towards the entry into force of the amendment to Article XIV.A of the Statute, approved in 1999, and on the progress made towards the entry into force of the amendment to Article VI of the Statute, approved in 1999.

702 participants

SCIENTIFIC FORUM:
Nuclear Innovations for Net Zero

35 speakers

142
general debate statements delivered

2835
participants registered

2589
Member State representatives

89
from international organizations

153
from NGOs

PRESIDENT OF THE GENERAL CONFERENCE

HE Ms Vilawan Mangklatanakul

Ambassador and Resident Representative of Thailand

111
side events

14 285
livestream participants

3274
downloads of the GC67 mobile app

ABBREVIATIONS

AEOI	Atomic Energy Organization of Iran
ALMERA	Analytical Laboratories for the Measurement of Environmental Radioactivity
ALPS	Advanced Liquid Processing System
AP	additional protocol
ARTEMIS	Integrated Review Service for Radioactive Waste and Spent Fuel Management, Decommissioning and Remediation
CNDC	China Nuclear Data Center
CNPP	country nuclear power profile
COMPASS	IAEA Comprehensive Capacity-Building Initiative for SSACs and SRAs
ConvEx	Convention Exercise
COP	Conference of the Parties to the United Nations Framework Convention on Climate Change
CPF	country programme framework
CRP	coordinated research project
CSA	comprehensive safeguards agreement
DIRATA	Database on Discharges of Radionuclides to the Atmosphere and Aquatic Environment
DSRS-TeC	Disused Sealed Radioactive Sources Technical Centre peer review
EPR	emergency preparedness and response
EPREV	Emergency Preparedness Review
Euratom	European Atomic Energy Community
FAO	Food and Agriculture Organization of the United Nations
FINAS	Fuel Incident Notification and Analysis System
HFIPS	Hefei Institutes of Physical Science
HOPS	Hub for On-line Nuclear Power Plant Part-Task Simulators
ICTP	Abdus Salam International Centre for Theoretical Physics
imPACT	integrated missions of PACT
INIR	Integrated Nuclear Infrastructure Review
INIR-RR	Integrated Nuclear Infrastructure Review for Research Reactors
INIS	International Nuclear Information System
INL	Idaho National Laboratory
INSARR	Integrated Safety Assessment of Research Reactors
INSServ	International Nuclear Security Advisory Service
IPPAS	International Physical Protection Advisory Service
IRMIS	International Radiation Monitoring Information System
IRRS	Integrated Regulatory Review Service
IRRUR	Integrated Research Reactor Utilization Review
IRS	Incident Reporting System
IRSRR	Incident Reporting System for Research Reactors
ISCA	Independent Safety Culture Assessment
ISOP	International Network on Innovation to Support Operating Nuclear Power Plants
ITU	International Telecommunication Union

LEU	low enriched uranium
MIT	Massachusetts Institute of Technology
NHSI	Nuclear Harmonization and Standardization Initiative
NPP	nuclear power plant
NPT	Treaty on the Non-Proliferation of Nuclear Weapons
NUTEC Plastics	NUclear TEChnology for Controlling Plastic Pollution
OECD/NEA	Nuclear Energy Agency of the Organisation for Economic Co-operation and Development
OMARR	Operation and Maintenance Assessment for Research Reactors
ORPAS	Occupational Radiation Protection Appraisal Service
OSART	Operational Safety Review Team
PACT	Programme of Action for Cancer Therapy
PRIS	Power Reactor Information System
PROSPER	Peer Review of Operational Safety Performance Experience
QUAADRIL	Quality Assurance Audit for Diagnostic Radiology Improvement and Learning
QUANUM	Quality Assurance in Nuclear Medicine
QUATRO	Quality Assurance Team for Radiation Oncology
RANET	Response and Assistance Network
RISS	Advisory Mission on Regulatory Infrastructure for Radiation Safety and Nuclear Security
SALTO	Safety Aspects of Long Term Operation
SANIS	Simulation and Experimental Analyses Network Information System
SEED	Site and External Events Design
SMR	small modular reactor
SPECT-CT	single photon emission computed tomography–computed tomography
SQP	small quantities protocol
TCF	Technical Cooperation Fund
TSR	Technical Safety Review
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNEP	United Nations Environment Programme
WHO	World Health Organization
ZODIAC	Zoonotic Disease Integrated Action