

**IAEA ANNUAL REPORT 2011**  
Additional Annex Information



**Table A19. Coordinated research projects initiated in 2011**

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**Nuclear Power**

- Continued Operations beyond 60 Years in Nuclear Power Plants
- Review and Benchmark of Calculation Methods on Piping Wall Thinning Due to Erosion-Corrosion in Nuclear Power Plants

**Nuclear Fuel Cycle and Waste Technology**

- Evaluation of Conditions for Hydrogen-Induced Degradation of Zirconium Alloys during Fuel Operation and Storage

**Capacity Building and Nuclear Knowledge Maintenance for Sustainable Energy Development**

- Assessing Interdependencies between Energy, Water, Land use and Climate Change

**Nuclear Science**

- Atomic and Molecular Data for State-resolved Modelling of Hydrogen and Helium and Their Isotopes in Fusion Plasma
- Benchmarking of Structural Materials Pre-selected for Advanced Nuclear Reactors
- Data for Erosion and Tritium Retention in Beryllium Plasma-facing Materials
- Development and Preclinical Evaluations of Therapeutic Radiopharmaceuticals Based on Lu-177 and Y-90 Labelled Monoclonal Antibodies and Peptides
- Development of a Reference Database for Particle-Induced Gamma-ray Emission (PIGE) Spectroscopy
- Improvement of Portable Instruments and Analytical Techniques for In Situ Applications
- Investigations on Materials under High Repetition and Intense Fusion Pulses
- Radiation Curing of Composites for Enhancing their Features and Utility in Health Care and Industry
- Utilization of Ion Accelerators for Studying and Modelling of Radiation Induced Defects in Semiconductors and Insulators
- Utilization of the Network of Small Magnetic Confinement Fusion Devices for Mainstream Fusion Research

**Food and Agriculture**

- Approaches to Improvement of Crop Genotypes with High Water and Nutrient Use Efficiency for Water Scarce Environments
- Climate Proofing of Food Crops: Genetic Improvement for Adaptation to High Temperatures in Drought Prone Areas and Beyond
- Implementation of Nuclear Techniques to Improve Food Traceability
- Soil Quality and Nutrient Management for Sustainable Food Production in Mulch-based Cropping Systems in Sub-Saharan Africa

**Human Health**

- Doctoral CRP on Stable Isotope Techniques to Assess Intake of Human Milk and Body Composition of Infants and Young Children up to Two Years of Age
- Enhancing Capacity for Early Detection and Diagnosis of Breast Cancer through Imaging
- Stable Isotope Techniques to Design Effective Food Fortification Strategies in Settings with High H. Pylori Infection
- Using Nuclear Techniques to Develop and Evaluate Food-Based Strategies to Prevent Micronutrient Deficiencies in Young Children

### **Radioisotope Production and Radiation Technology**

- Accelerator-based Alternatives to Non-HEU production of Mo-99/Tc-99m
- Development and Preclinical Evaluations of Therapeutic Radiopharmaceuticals Based on Lu-177 and Y-90 Labelled Monoclonal Antibodies and Peptides

**Table A20. Coordinated research projects completed in 2011**

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**Nuclear Fuel Cycle and Materials Technology**

- Behaviour of Cementitious Materials in Long Term Storage and Disposal of Radioactive Waste
- Feasibility Evaluation of the Use of Low Enriched Uranium Fuelled Homogeneous Aqueous Solution Nuclear Reactors for the Production of Short Lived Fission Product Isotopes
- Optimisation of Water Chemistry Technologies and Management to Ensure Reliable Fuel Performance at High Burnup and in Ageing Plants

**Nuclear Science**

- Heavy Charged-particle Interaction Data for Radiotherapy
- Integrated Approach to Dense Magnetized Plasma Applications in Nuclear Fusion Technology

**Food and Agriculture**

- Development of Standardised Mass Rearing Systems for Male *Anopheles arabiensis* Mosquitoes
- Molecular Tools for Quality Improvement in Vegetatively Propagated Crops Including Banana and Cassava
- Veterinary Surveillance of Rift Valley Fever (RVF)

**Human Health**

- Body Fat and its Relationship with Metabolic Syndrome Indicators in Overweight Pre-Adolescents and Adolescents
- Doctoral CRP on Clinical and Experimental Studies to Improve Radiotherapy Outcome in AIDS Cancer Patients
- Zinc Nutrition during Early Life

**Radioisotope Production and Radiation Technology**

- Development of Novel Adsorbents and Membranes by Radiation-Induced Grafting for Selective Separation Purposes
- Evaluation and Validation of Radioisotopes Generators-Based Radiotracer for Industrial Applications

**Water Resources**

- Isotopic Age and Composition of Stream Flow as Indicators of Groundwater Sustainability

**Table A21. Publications issued in 2011**

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**Nuclear Power**

- Application of Configuration Management in Nuclear Power Plants
- Climate Change and Nuclear Power 011
- Country Nuclear Power Profiles: 2011 Edition
- Decommissioning of Small Medical, Industrial and Research Facilities: A Simplified Stepwise Approach — IAEA Nuclear Energy Series No. NW-T-2.3
- Design Lessons Drawn from the Decommissioning of Nuclear Facilities — IAEA-TECDOC-1657
- Evaluation of Human Resource Needs for a New Nuclear Power Plant: Armenian Case Study — IAEA-TECDOC-1656
- Good Practices for Water Quality Management in Research Reactors and Spent Fuel Storage Facilities — IAEA Nuclear Energy Series No. NP-T-5.2
- Integrated Nuclear Infrastructure Review Missions - Rev. 1
- International Status and Prospects of Nuclear Power: 2010 Edition
- Introduction to the Use of the INPRO Methodology in a Nuclear Energy System Assessment — IAEA Nuclear Energy Series No. NP-T-1.12
- Nuclear Energy General Objectives — IAEA Nuclear Energy Series No. NG-O
- Nuclear Power Newsletter — Vol. 7, No. 4, December 2010; Vol. 8, Nos 1 and, March and June 2011
- Nuclear Power Reactors in the World: 2011 Edition
- Operating Experience with Nuclear Power Stations in Member States in 2010: 2011 Edition
- Opportunities and Challenges for Water Cooled Reactors in the 21st Century: Proceedings of an International Conference, Vienna, Austria, 27–30 October 2009
- Optimization of Water Chemistry to Ensure Reliable Water Reactor Fuel Performance at High Burnup and in Ageing Plant (FUWAC) — IAEA-TECDOC-1666
- Power Uprate in Nuclear Power Plants: Guidelines and Experience — IAEA Nuclear Energy Series No. NP-T-3.9
- Radioactive Waste Management Objectives — IAEA Nuclear Energy Series No. NW-O
- Redevelopment and Reuse of Nuclear Facilities and Sites: Case Histories and Lessons Learned — IAEA Nuclear Energy Series No. NW-T-2.2
- Stakeholder Involvement Throughout the Life Cycle of Nuclear Facilities — IAEA Nuclear Energy Series No. NG-T-1.4
- Status and Trends of Nuclear Fuels Technology for Sodium Cooled Fast Reactors — IAEA Nuclear Energy Series No. NF-T-4.1
- Stress Corrosion Cracking in Light Water Reactors: Good Practices and Lessons Learned — IAEA Nuclear Energy Series No. NP-T-3.13
- The Management System for the Development of Disposal Facilities for Radioactive Waste — IAEA Nuclear Energy Series No. NW-T-1.2

**Nuclear Fuel Cycle and Materials Technology**

- Impact of High Burnup Uranium Oxide and Mixed Uranium-Plutonium Oxide Water Reactor Fuel on Spent Fuel — IAEA Nuclear Energy Series No. NF-T-3.8
- Research Reactor Application for Materials under High Neutron Fluence — IAEA-TECDOC-1659
- Selection and Use of Performance Indicators in Decommissioning — IAEA Nuclear Energy Series No. NW-T-2.1

- Status of Developments in the Back End of the Fast Reactor Fuel Cycle — IAEA Nuclear Energy Series No. NF-T-4.2

### **Capacity Building and Nuclear Knowledge Maintenance for Sustainable Energy Development**

- Comparative Analysis of Methods and Tools for Nuclear Knowledge Preservation — IAEA Nuclear Energy Series No. NG-T-6.7
- Energy, Electricity and Nuclear Power Estimates for the Period up to 2050: 2011 Edition
- Status and Trends in Nuclear Education — IAEA Nuclear Energy Series No. NG-T-6.1
- Workforce Planning for New Nuclear Power Programmes — Workforce Planning for New Nuclear Power Programmes — IAEA Nuclear Energy Series No. NG-T-3.10

### **Nuclear Science**

- Non-Destructive Testing: Sample Questions for Conduct of Examinations at Levels 1 and 2 — Training Course Series No. 45

### **Food and Agriculture**

- Animal Production and Health Newsletter — Nos 53 and 54, January and July 2011
- Food and Environmental Protection Newsletter — Vol. 14, Nos 1 and 2, January and July 2011
- Impact of Soil Conservation Measures on Erosion Control and Soil Quality — IAEA- TECDOC-1665
- Insect Pest Control Newsletter — Nos 76 and 77, January and July 2011
- Physical Mapping Technologies for the Identification and Characterization of Mutated Genes Contributing to Crop — IAEA- TECDOC- 1664
- Plant Breeding and Genetics Newsletter — Nos 26 and 27, January and July 2011
- Plant Mutation Reports — Vol. 2, No. 3, March 2011
- Soils Newsletter — Vol. 34, No. 1, July 2011

### **Human Health**

- Advances in Radiation Oncology, Proceedings of an International Conference held in Vienna, Austria, 27–29 April 2009
- Atlas of Bone Scintigraphy in the Developing Paediatric Skeleton: The Normal Skeleton Variants and Pitfalls — IAEA Human Health Series No. 16
- Clinical Training of Medical Physicists Specializing in Nuclear Medicine — Training Course Series No. 50
- Dual Energy X Ray Absorptiometry for Bone Mineral Density and Body Composition Assessment — IAEA Human Health Series No. 15
- Implementation of the International Code of Practice on Dosimetry in Diagnostic Radiology (TRS 457): Review of Test — IAEA Human Health Reports No. 4
- Inequity in Cancer Care: A Global Perspective — IAEA Human Health Reports No. 3
- Introduction to Body Composition Assessment Using the Deuterium Dilution Technique with Analysis of Saliva Samples by Fourier Transform Infrared Spectrometry — IAEA Human Health Series No. 12
- Introduction to Body Composition Assessment Using the Deuterium Dilution Technique with Analysis of Urine Samples — IAEA Human Health Series No. 13
- On-site Visits to Radiotherapy Centres: Medical Physics Procedures — Quality Assurance Team for Radiation Oncology (QUATRO) — IAEA-TECDOC- 1543 (CD-ROM)
- Planning National Radiotherapy Services: A Practical Tool — IAEA Human Health Series No. 14
- Quality Assurance Programme for Digital Mammography — IAEA Human Health Series No. 17
- SSDL Newsletter — No. 59, April 2011

- Status of Computed Tomography Dosimetry for Wide Cone Beam Scanners — IAEA Human Health Reports No. 5

#### **Water Resources**

- Eddy Current Testing at Level 2: Manual for the Syllabi Contained in IAEA-TECDOC-628.Rev. 2 — Training Course Series No. 48
- Radiotracer Applications in Wastewater Treatment Plants — Training Course Series No. 49

#### **Environment**

- Analytical Methodology for the Determination of Radium Isotopes in Environmental Samples
- Certified Reference Materials for Radioactivity Measurements in Environmental Samples of Soil and Water: IAEA-444 and IAEA-445 — IAEA Analytical Quality in Nuclear Applications Series No. 21
- Worldwide Proficiency Test: Determination of Minor and Trace Elements in Grass Mixture — IAEA Analytical Quality in Nuclear Applications Series No. 20
- X Ray Fluorescence in the IAEA and its Member States Newsletter — No. 20, December 2011

#### **Radioisotope Production and Radiation Technology**

- Nuclear Data Newsletter — Issue Nos 51 and 52, May and November 2011
- Nuclear Desalination Newsletter — No. 3, September 2011
- Nuclear Techniques for Cultural Heritage Research — IAEA Radiation Technology Series No. 2
- Use of Mathematical Modelling in Electron Beam Processing: A Guidebook — IAEA Radiation Technology Series No. 1
- Water and Environment News — Nos. 28 and 29, April and September 2011

#### **Incident and Emergency Preparedness and Response**

- Criteria for Use in Preparedness and Response for a Nuclear or Radiological Emergency — IAEA Safety Standards Series No. GSG-2
- Cytogenetic Dosimetry: Applications in Preparedness for and Response to Radiation Emergencies
- Earthquake Preparedness and Response for Nuclear Power Plants — Safety Reports Series No. 66
- Generic Procedures for Response to a Nuclear or Radiological Emergency at Research Reactors —EPR-Research Reactor 2011
- Generic Procedures for Response to a Nuclear or Radiological Emergency at Triga Research Reactors — EPR-Triga Research Reactor 2011
- IAEA Response and Assistance Network: Incident and Emergency Centre — EPR-RANET 2010
- Manual for IRS Coding, Joint IAEA/NEA International Reporting System for Operating Experience — IAEA Services Series No. 20

#### **Safety of Nuclear Installations**

- A Framework for an Integrated Risk Informed Decision Making Process — INSAG Series No. 20
- Challenges Faced by Technical and Scientific Support Organizations in Enhancing Nuclear Safety and Security, Proceedings of an International Conference, Tokyo, Japan, 25–29 October 2010
- Chemistry Programme for Water Cooled Nuclear Power Plants — IAEA Safety Standards Series No. SSG-13
- Integrated Nuclear Infrastructure Review Missions— Rev. 1
- Mitigation of Hydrogen Hazards in Severe Accidents in Nuclear Power Plants — IAEA-TECDOC-1661
- Non-linear Response to a Type of Seismic Input Motion — IAEA-TECDOC-1655



- NS Update — Issue No. 15, February 2011
- Preparing and Conducting Review Missions of Instrumentation and Control Systems in Nuclear Power Plants — IAEA-TECDOC-1662
- Safety of Nuclear Power Plants: Commissioning and Operation — IAEA Safety Standards Series No. SSR-2/2

### **Radiation and Transport Safety**

- Control and Management of Radioactive Material Inadvertently Incorporated into Scrap Metal, Proceedings of an International Conference Tarragona, Spain, 23–27 February 2009
- Exposure of the Public from Large Deposits of Mineral Residues — IAEA-TECDOC-1660
- National Strategy for Regaining Control over Orphan Sources and Improving Control over Vulnerable Sources — IAEA Safety Standards Series No. SSG-19
- Naturally Occurring Radioactive Material (NORM VI), Proceedings of an International Symposium held in Marrakech, Morocco, 22–26 March 2010
- Radiation Protection and NORM Residue Management in the Production of Rare Earths from Thorium Containing Minerals — Safety Reports Series No. 68
- Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards — Interim Edition — IAEA Safety Standards Series No. GSR Part 3 (Interim)
- Radiation Safety in Industrial Radiography — IAEA Safety Standards Series No. SSG-11
- Radioactive Particles in the Environment: Sources, Particle Characterization and Analytical Techniques — IAEA-TECDOC-1663

### **Management of Radioactive Waste**

- Disposal of Radioactive Waste — IAEA Safety Standards Series No. SSR-5
- Geological Disposal Facilities for Radioactive Waste — IAEA Safety Standards Series No. SSG-14
- Viability of Sharing Facilities for the Disposal of Spent Fuel and Nuclear Waste — IAEA-TECDOC-1658

### **Nuclear Security**

- Nuclear Security Recommendations on Nuclear and Other Radioactive Material out of Regulatory Control — IAEA Nuclear Security Series No. 15
- Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities (INFCIRC/225/Revision 5) — IAEA Nuclear Security Series No. 13
- Nuclear Security Recommendations on Radioactive Material and Associated Facilities — IAEA Nuclear Security Series No. 14
- The International Legal Framework for Nuclear Security — IAEA International Law Series No. 4

**Table A22. Training courses, seminars and workshops in 2011**

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**Nuclear Power**

- Long-range Nuclear Energy Strategies  
USA
- National Training Course on Integrated Management Systems of NPPs under TC Project  
Vietnam
- National Training Course on Nuclear Waste Management and the NEWMDB  
China
- National Training Course on the QA System for NDT Related to NPP Inspection  
Malaysia
- On-line Maintenance, Automated Testing and Equipment and Process Condition Monitoring  
USA
- Plant Life Management Model and Ageing Management for Long Term Operation  
Hungary
- Regional Training Course on Assuring Safety Assessment throughout the NPP Project  
Philippines
- Regional Training Course on Transition to Integrated Management System (IMS) Approach Supporting the Development of SSC  
Bangladesh

**Nuclear Fuel Cycle and Materials Technologies**

- Nuclear Fuel Management and Licensing, Part 3  
Romania
- Radiation Protection, Safety and Security in Uranium Exploration for Workers  
Uruguay
- Remediation Planning in Uranium Mining  
Gabon
- Uranium Recovery from Phosphates and Phosphoric Acid  
Morocco

**Capacity Building and Nuclear Knowledge Maintenance for Sustainable Energy Development**

- Developing National Scenarios for Long Term Supply of Energy and Water  
Headquarters
- Developing Regional Electricity Power Plans Using MESSAGE  
Senegal
- Electricity Sector Analysis Using an IAEA Tool WASP  
Algeria
- Energy Balances Compilation Using Energy Balance Studio  
Zimbabwe
- ETC on Leadership and Management for Introducing and Expanding Nuclear Power Programme  
France
- Executive Programme for Nuclear Power Management  
France
- Grid Issues and Siting of a New Nuclear Power Plant  
Ghana

- ICT Materials (Advanced)  
Tunisia
- ICT Teaching Materials in the Field of Human Nutrition  
Senegal
- Integration of National Scenarios on Energy and Water into a Regional Picture  
Headquarters
- Interregional Training Course on Technical Aspects for Nuclear Power Introduction  
Republic of Korea
- Leadership and Management  
France
- Leadership and Management for Introducing and Expanding Nuclear Power Programmes  
USA
- Leadership and Management of Nuclear Power Programmes  
USA
- MAED  
Cameroon
- Management Systems and Development of the Safety Culture  
USA
- Managers of Telecentres  
Sudan
- MESSAGE (F)  
Mali
- National Training Course on Evaluating External Cost of Health and Environmental Impacts of Nuclear Power  
Malaysia
- NPP Pre-construction and Construction: Construction Technology and Management  
Nigeria
- NYC on Model for Indicators for Sustainable Energy Development (ISED) in Malaysia  
Malaysia
- Overview of the Basic Principles Governing the Safety of Nuclear Installations  
Headquarters
- Regional Training Course on Financial Evaluation of Future Electricity Projects Using FINPLAN Model  
Headquarters
- Regional Training Course on Management Systems and Development of the Safety Culture  
USA
- Technical Aspects for Nuclear Power Introduction  
Republic of Korea
- The Use of ICT Teaching Materials in the Water Resources Management  
Algeria

#### **Nuclear Science**

- Advanced Level Maintenance of Siemens ECam Gamma Cameras  
Madagascar
- Advanced Maintenance and Repair of MEDISO Spirit Gamma Cameras  
Seibersdorf
- Advanced Uncertainties Calculations and Calibration of Instruments  
United Republic of Tanzania

- Advanced Utilization of Nuclear Techniques in Archaeology and Material Sciences  
Headquarters
- Alpha, Gamma and X Ray Spectrometry  
Angola
- Innovation, Technology Transfer and Successful Technology Licensing  
Headquarters
- Maintenance and Troubleshooting of Dionex Ion Chromatographs  
Ethiopia
- Maintenance of Industrial X Ray Machines  
Colombia
- QA/QC Aspects of Nuclear Instruments Developed Using FPGA Technology  
Bangladesh
- Regional Training Course on Calibration of Working Tools Applying Reference Equipment  
Mexico
- Regional Training Course on LabView Tools for Data Transfer, Movement Control and Image Treatment  
Brazil, Cuba
- Semiconductor Detectors  
Algeria
- Software Validation Procedures and Methodology  
Mexico
- Switch Mode Power Supplies (SMPS)  
Democratic Republic of the Congo
- Testing and Validation Procedures of Nuclear Instruments Software Using LabView  
Bangladesh
- The Management of Nuclear Power Projects  
Algeria
- X Ray Fluorescence and Other Analytical Techniques in Cultural Heritage  
United Arab Emirates

#### **Food and Agriculture**

- Advanced Regional Training Course on Bioassays and Bioindicators  
Chile
- Basic Epidemiology and the Surveillance of Important Livestock Diseases  
Bolivia
- Diagnostic Data (FE2)  
Eritrea
- Epidemiological Surveillance Targeting PPR and CBPP  
Zambia
- Epidemiology of Transboundary Animal Diseases  
Eritrea
- Participatory Breeding, Farmers' Rights, and Seeds and Planting Material Exchange  
Paraguay
- QA/QC Control in Diagnostic Laboratory Practice  
Seibersdorf
- Quality Evaluation of Solanaceous Food Crops  
Hungary

- QuEChERS and LC-MS  
Peru
- RCA/RTC on Train the Trainer Course for Trainers for Quarantine Inspectors  
Malaysia
- Seeds and Planting Material Exchange in Africa and the World  
Cameroon
- SIT  
Senegal
- Tissue Culture and Virus Isolation  
Eritrea
- Use of Isotopic Techniques to Study Carbon and Nitrogen Dynamics and Modelling  
Brazil
- Use of Molecular Techniques for the Evaluation of Mutants  
Venezuela
- Water Use Efficiency of High-value Crops  
Mauritius

### **Human Health**

- Acceptance Test of Gamma Cameras  
Seibersdorf
- Advanced Treatment Planning  
Italy
- Cardiology, Nephrology and Radiopharmacy  
Algeria
- Commissioning of LINACS  
Nigeria
- Evidence-based Radiation Oncology  
Russian Federation
- Evidence-based Radiation Oncology in Gynaecological Malignancies  
Sudan
- Evidence-based Radiation Oncology of Common Cancers  
Georgia
- IAEA/EANM Cardiovascular Course  
Headquarters
- IAEA National Workshop to Train Radiation Technology Trainers (RTTs)  
Israel
- Internal Dosimetry  
Algeria
- Medical Physics for Nuclear Medicine  
United Arab Emirates
- Modern Radiotherapy and Therapeutic Radiological Physics  
Sri Lanka
- Mold Room for Radiotherapy Technicians  
Nicaragua
- Multidisciplinary Management of Cervical Cancer  
Panama

- Multidisciplinary Management of Prostate Cancer  
Honduras
- Neuroimaging  
Headquarters
- Neuro-Imaging, Infection and Inflammation  
Algeria
- New Tools in Drug Resistance and Drug Resistance Troubleshooting  
South Africa
- Nuclear Cardiology  
Italy
- Nuclear Cardiology, Second Edition  
Italy
- Nuclear Cardiology, Targeted Therapy and Infection  
Mauritius
- Paediatric  
Headquarters
- Paediatric Radiation Oncology  
Tunisia
- Performing Quality Control and Preventive Maintenance of a Dual-head Gamma-camera  
Seibersdorf
- PET/CT  
Headquarters
- PET/CT and Molecular Nuclear Medicine  
Headquarters
- PET/CT in Oncology  
Headquarters
- PET/CT in Oncology (Advanced)  
Headquarters
- PET-CT in Oncology Applying  $^{18}\text{F}$  and  $^{68}\text{Ga}$   
Egypt
- Physics for Clinical Radiotherapy  
Portugal
- Quality Assurance in the Physical and Technical Aspects of Radiotherapy  
USA
- Radiation Oncology  
Greece, Headquarters
- Radiotherapy  
Ukraine
- Radiotherapy Techniques with Emphasis on Imaging and Treatment Planning  
Saudi Arabia
- Regional Training Course on Improving the Quality of Reporting in Positron Emission Tomography (PET)  
Australia
- Regional Training Course on Introduction to Image Based Radiotherapy (for Radiation Oncologists and Medical Physicists)  
Indonesia, Philippines
- Regional Training Course on Medical Physics in Diagnostic Radiology  
Colombia

- Regional Training Course on Nuclear Cardiology in Myocardial Viability Assessment and Introduction to PET and PET/CT for Advanced Users  
Philippines
- Regional Training Course on Nuclear Medicine Physics  
Argentina
- Regional Training Course on QA in Radiotherapy Physics of IMRT  
Brazil
- Regional Training Course on Transition from 2D to 3D Conformal Radiotherapy  
Argentina
- Results Interpretation, Data Handling/Analysis in Infectious Diseases — TB and Malaria  
Mali
- SOP for Isotope Techniques in Infant and Young Child Nutritional Status  
Botswana
- Tissue Banking Operation: Phase I (Virtual)  
Argentina
- Train Quality Auditors for Nuclear Medicine Facilities  
Slovenia
- Use of Nuclear Cardiology in Myocardial Viability Assessment and Introduction to PET and PET/CT  
Vietnam

#### **Water Resources**

- Data Interpretation and Monitoring of Project Progress  
United Republic of Tanzania
- Isotope Data in River Basin Water Balance Models  
Headquarters
- Isotope Hydrology  
Eritrea, Tunisia
- Isotope Hydrology (University Level)  
Benin

#### **Assessment and Management of Marine and Terrestrial Environments**

- Establishment of the Quality Management System  
United Republic of Tanzania
- Internal Auditing According to ISO 9000 and ISO 17025 Requirements  
Ghana
- ISO 17025 Standard for Calibration and Testing Laboratories  
Kenya
- ISO/IEC 17025 Standard and its Application for Testing and Metrology Labs  
Zimbabwe
- Laboratory Quality System and Metrological Requirements  
Morocco, Tunisia
- Marine Radioactivity  
Germany
- Measurement Uncertainty for Testing and Metrology Laboratories  
Zimbabwe
- Method Validation and Estimation of Measurement Uncertainty  
Morocco

- Methodologies to Assess Radiological Impact  
Tajikistan
- Preparation and Use of In-house Reference Materials for QC of Analytical Results  
Panama
- Quality System for Testing and Metrology Laboratories  
Algeria, Mauritius
- Radiological Impact to the Environment and the Public  
Russian Federation
- Radiometric Techniques for  $^{210}\text{Pb}$  Dating of Coastal Sediments  
Guatemala
- Receptor Binding Assay for ASP Toxins  
Kenya
- Regional Training Course on Application of Nuclear Instrument Technology in Identifying Source of LBP in Marine Coastal Environment  
Thailand
- Regional Training Course on Impact of Oil Spill on Marine Environment  
Monaco
- Regional Training Course on Sampling and Identifying Toxic Microalgae  
Costa Rica
- Validation of Microbiological Methods  
Tunisia

#### **Radioisotope Production and Radiation Technology**

- Analysis of Heavy Metals and Established PT Scheme for Food Safety  
South Africa
- Cultural Heritage Objects  
Turkey
- Cultural Heritage Protection  
Romania
- Eddy Current Testing  
Mauritius
- Establishment of Radiation Processing Facilities  
Hungary
- IAEA Validation and Process Control for Gamma Radiation Processing  
Hungary
- Method Validation and Measurement Results Uncertainty Estimation  
Headquarters
- Method Validation and Measurement Uncertainty for Nuclear Analytical Techniques  
Morocco
- Method Validation, Traceability and Measurement Uncertainty for Chemical Analysis  
Ethiopia
- National Training Course on NDT on UT  
Kenya
- National Training Course on Radiographic Testing Level 3  
Indonesia
- NDT Level 3, Training, Examination and Certification  
South Africa



- NDT on Industrial Radiography  
Kenya
- Quality Control and Quality Management System in Radiopharmacy  
Uganda
- Regional Examinations to Qualify Personnel to Level I and II in MT and UT  
Tunisia
- Regional Examinations to Qualify Personnel to Level I and II in PT and RT  
Tunisia
- Regional Training Course and Demonstration on Upscaling of Radiation Modification of Polymer for Agriculture Application  
China
- Regional Training Course on Advanced Applications of Radiation Processing for Recycling of Polymeric Waste  
Malaysia
- Regional Training Course on Basic Radiation Processing of Polymer and Recycling of Polymeric Waste by Using Radiation Technology  
Republic of Korea
- Regional Training Course on Common Core for Level 3, Magnetic Particle Testing (MT) Level 3 and Liquid  
Brazil
- Regional Training Course on Common Core Radiographic Testing (RT), Level 3  
Brazil
- Regional Training Course on Diagnosis of Multi-phase Systems of Petrochemical Plants and Waste Water Treatment  
Republic of Korea
- Regional Training Course on Gamma Transmission Computed Tomography System and Image Reconstruction for Pipe Inspection  
Vietnam
- Regional Training Course on Internal Auditing  
Jordan
- Regional Training Course on Radioactive Particle Tracking Technique for Investigating Process Hydrodynamics  
India
- Regional Training Course on the Use of ISee and aRTist Software for DIR Image Analysis and Interpretation  
Malaysia
- Regulatory Aspects of Radiation Processing Technology  
Egypt
- The Requirements and Implementation of the ISO 15189 Standard  
Tunisia
- Uncertainty in Measurements Performed at SSDLs and Dosimetry Service Labs  
Algeria

#### **Safety of Nuclear Installations**

- Low Power and Shutdown (LPSD) PSA for Chashma NPP's Unit 1 and 2  
Headquarters
- National Training Course on Reactor Thermal Dynamic of PWR and Steam Generator Tube Rupture  
Vietnam

- Radiation Safety, Licensing and Inspection  
Sierra Leone
- Reactivity Initiated Accidents (RIAs)  
Vietnam
- Regional Training Course on Orphan Source Search  
Philippines
- Regulatory Approaches to Nuclear Safety  
Germany
- Safety Assessment of NPPs  
USA
- The Licensing and Inspection of Nuclear Medical Facilities for Regional Inspection  
Ukraine
- Workshop on Alarm Inhibition in a Nuclear Power Plant Main Control Room  
Headquarters

### **Radiation and Transport Safety**

- Authorization and Inspection of Radiation Sources  
Ghana, Tunisia
- Digital Radiology  
Finland
- General Safety Provisions  
Morocco
- Introduction to Radiation Principles and Radiation Safety  
Benin
- Introduction to Radiation Principles and Radioprotection Radiation Safety  
Mauritania, Senegal
- Ionizing Radioactive Sources  
Senegal
- Licensing and Inspection  
Uganda
- Licensing and Inspection of Uranium Mining  
Namibia
- Medical Installations and Biological Research Laboratories Dealing with Radioactivity  
Peru
- National Training Course on Radiation Safety in Industrial Applications  
Lebanon
- Occupational Radiation Protection Programmes in Medical and Industrial Applications  
Nicaragua
- PGEC in Radiation Protection  
Greece
- Post-graduate Educational Course on Radiation Protection  
Ghana, Malaysia
- Post-graduate Radiation Protection Course in Panama  
Panama
- Pre-disposal Management of Radioactive Sources  
Headquarters

- Radiation Protection  
Morocco, Panama
- Radiation Protection and Optimization in Computed Tomography  
Peru
- Radiation Protection and Safety of Radiation Sources  
Argentina, Syrian Arab Republic
- Radiation Protection in Diagnostic Radiology  
Egypt
- Radiation Protection of Patients for Radiographers  
Algeria, Ghana
- Radiation Protection Officers  
Lithuania
- Radiation Safety for Custom Officers  
Gabon
- Radiation Safety Officers in Diagnostic Radiology  
United Republic of Tanzania
- Regional Training Course on Control of Public Exposure Due to Radioactive Releases to the Environment  
Jordan
- Regional Training Course on Naturally Occurring Radioactive Material (NORM)  
United Arab Emirates
- Regional Training Course on Nuclear Safety  
Argentina
- Regional Training Course on Patient Dose Assessment and Dose Management in Diagnostic and Interventional Radiology  
Qatar
- Regional Training Course on Public Exposure to NORM — As Related to Oil and Gas Industry  
Headquarters
- Regulators, Radiation Safety Officers and Radiation Workers  
Mauritius
- Safe Transport of Radioactive Material and on Issues of Denials of Shipment  
Panama
- Workshop on Safety Assessment as Support to Licensing of Radioactive Waste Management  
Headquarters

#### **Management of Radioactive Waste**

- Advanced Safety Assessment and Dose Calculation Tool  
Sweden
- Application of Waste/Residue Management and Remediation Technologies  
Namibia
- Development of Near Surface Disposal Facility  
South Africa
- Environmental Remediation  
Kyrgyzstan
- Geological Disposal  
Czech Republic
- GoldSim Modelling of an NSR  
Headquarters

- Nuclear Facility  
USA
- Radioactive Waste Management Principles and Practices  
Nigeria
- Repository Engineering for Disposal of HLW/Spent Fuel in Sedimentary Environment  
Germany
- Safety Case Development and Safety Assessment Methods for the BDC  
Ghana
- Site Conditions for Geological Disposal  
France
- Use of Portable Instrumentation and Laboratory Analyses for NORM Measurements  
Hungary

### **Nuclear Security**

- Combating Illicit Trafficking in Nuclear and Other Radioactive Material  
United Republic of Tanzania
- Computer Security at Nuclear Facilities  
South Africa
- Increasing Nuclear Security through Process Control and Material Accounting  
China
- Physical Protection  
Slovenia, Ukraine
- Physical Protection of Nuclear Facilities against Sabotage, Assessing Vulnerability  
India
- Radiological Crime Scene Management and Introduction to Nuclear Forensics  
Republic of Korea
- Security of Radioactive Sources  
Ethiopia

### **Management of Technical Cooperation for Development**

- Cours régional de formation sur la planification et la formulation de projets  
Algeria
- Innovation, Technology Transfer and Successful Technology Licensing  
Philippines
- Internal Dosimetry Applied to Nuclear Medicine  
Cuba
- International School of Nuclear Law  
France
- Interregional Course on Radioactive Waste Management  
Germany
- Master of Medical Physics  
Peru
- Project Planning and Design Course for National Project Counterparts  
Ghana, Peru
- Seventh WNU Summer Institute  
United Kingdom
- The International Nuclear Information Systems (INIS)  
Morocco

**Executive Management, Policy Making and Coordination**

- First Session of the Nuclear Law Institute  
Headquarters
- Nuclear Law Institute  
Headquarters

**Emergency Preparedness and Response**

- Application of the Requirements (GS-R-2) and Guidance on Developing National Capacity  
United Arab Emirates
- Exercise Preparation, Conduct and Evaluation  
Tunisia
- First Responders  
Uruguay
- First Responders to a Radiological Emergency  
Botswana, Cameroon
- First Response  
Azerbaijan
- First Response to a Radiological Emergency  
Guatemala, Paraguay
- International Nuclear and Radiological Event Scale (INES)  
Brazil
- Medical Preparedness  
The Former Yugoslav Republic of Macedonia
- Medical Response to Radiation Emergencies  
Peru
- Medical Response to Radiation Injuries  
Uruguay
- Monitoring  
Belarus
- National Training Course for First Responders to a Radiological Emergency  
Bolivia
- National Training Course on Radiochemical Analysis and Physical Analysis  
Sri Lanka
- Public Communications in a Nuclear or Radiological Emergency  
Croatia
- Radiological and Nuclear Emergencies  
Tunisia
- Regional Training Course on Public Communications in Radiation Emergencies  
Malaysia
- Response to Nuclear or Radiological Emergencies  
Sudan
- TRC for Public Information Officers on Communications in a Nuclear Emergency  
Headquarters

**Table A23. Relevant Agency web sites**

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Public web site

<http://www.iaea.org/>

**Nuclear Power**

Nuclear energy

<http://www.iaea.org/OurWork/ST/NE/index.html>

Nuclear power

<http://www.iaea.org/NuclearPower/>

Nuclear power technology development

<http://www.iaea.org/NuclearPower/Technology/>

Nuclear power engineering

<http://www.iaea.org/NuclearPower/Engineering/>

Nuclear energy knowledge resources

<http://www.iaea.org/inisnkm/nekr/index.html>

INPRO

<http://www.iaea.org/INPRO/>

Planning and economic studies

<http://www.iaea.org/OurWork/ST/NE/Pess/index.shtml>

International Nuclear Information System and Nuclear Knowledge Management

<http://www.iaea.org/inisnkm/>

Nuclear energy databases

<http://www.iaea.org/OurWork/ST/NE/databases.html>

**Nuclear Fuel Cycle and Materials Technologies**

Nuclear fuel cycle and waste technology

<http://www.iaea.org/OurWork/ST/NE/NEFW/index.html>

Integrated Nuclear Fuel Cycle Information System (iNFCIS)

<http://www-nfcis.iaea.org/>

**Nuclear Science**

Portal for medical related nuclear data

<http://www-nds.iaea.org/medportal/>

Research Reactor Database

<http://www.iaea.org/worldatom/rrdb/>

Information on ageing related operating experience from research reactors around the world (available to research reactor operators)

[http://www.iaea.org/OurWork/ST/NE/NEFW/rrg\\_operation.html](http://www.iaea.org/OurWork/ST/NE/NEFW/rrg_operation.html)

**Nuclear Applications**

Joint FAO/IAEA Programme on Nuclear Techniques in Food and Agriculture

<http://www-naweb.iaea.org/nafa/index.html>

Physical and chemical sciences

<http://www-naweb.iaea.org/napc/ih/index.html>

**Food and Agriculture**

Agency managed database for officially released mutant varieties

<http://mvgs.iaea.org/>

**Human Health**

Programme of Action for Cancer Therapy (PACT)

<http://cancer.iaea.org/index.asp>

Guidance and educational resources to Member States

<http://nucleus.iaea.org/apps/HHW/root/content/MedicalPhysics>

Distance Assisted Training on-line (DATOL)

<http://nucleus.iaea.org/apps/HHW/root/content/Technologists/NuclearMedicine/Educationalresources/DistanceAssistedTrainingforNuclearMedicineTechnologists>

Training materials for distance learning

<http://www-naweb.iaea/nahu/default.asp>

**Water Resources**

Isotope measurements from non-Agency projects on rivers and groundwater (available to Member States)

<http://www.iaea.org/water>

**Environment**

Reference material web site

<http://nucleus.iaea.org/rpst/index.htm>

**Incident and Emergency Preparedness and Response**

Early Notification and Assistance Conventions (ENAC) web site and the Nuclear Events Web-based System

<http://www-news.iaea.org/news/>

Incidents and emergencies

<http://www-ns.iaea.org/tech-areas/emergency/>

**Radiation and Transport Safety**

Radiation Safety Information Management System (RASIMS)

<http://rasims.iaea.org>

Radiation safety

<http://rpop.iaea.org/RPoP/RPoP/Content/index.htm>

Radiation, transport and waste safety

<http://www-ns.iaea.org/home/rtws.asp>

Nuclear installation safety

<http://www-ns.iaea.org/home/nis.htm>

**Safeguards**

<http://www.iaea.org/OurWork/SV/Safeguards/index.html>

**Management of Technical Cooperation for Development**

<http://www-tc.iaea.org/tcweb/default.asp>

**Regional Sites**

Africa

<http://www-tc.iaea.org/tcweb/regionalsites/africa/default.asp>

Europe

<http://www-tc.iaea.org/tcweb/regionalsites/europe/default.asp>

Latin America

<http://www-tc.iaea.org/tcweb/regionalsites/latinamerica/default.asp>

TCPrise

<http://tcpride.iaea.org/Default.asp>

TC country profile

<http://tcpride.iaea.org/?TCCountryProfile>

**Standards, Guides and Conventions**

International standards, guides and codes

<http://www.iaea.org/Publications/Standards/index.html>

International conventions and agreements

<http://www.iaea.org/Publications/Documents/Conventions/index.html>

**Legal Assistance**

<http://ola.iaea.org/OLA/default.asp>



**Table A24. Facilities under Agency safeguards or containing safeguarded nuclear material on 31 December 2011**

State <sup>a</sup>	Name of Facility	Location
<b>Power reactors</b>		
Argentina	ATUCHA I NUCLEAR POWER PLANT	LIMA
	Atucha II Nuclear Power Plant	LIMA
	CAREM	Lima
	EMBALSE NUCLEAR POWER PLANT	EMBALSE
Armenia	Armenia NPP	Metsamor
	Armenia NPP 3	Metsamor
Belgium	DOEL 3 NPP	Doel
	DOEL 4 NPP	Doel
	ELBEL. DOEL 1	Doel
	ELBEL. TIH. 1	Tihange
	Tihange 2 NPP	Tihange
	Tihange 3 NPP	Tihange
Brazil	ADMIRAL ALVA. ALBERTO-(ANGRA2)	ANGRA DOS REIS
	ADMIRAL ALVA. ALBERTO-(ANGRA3)	ANGRA DOS REIS
	ALM.ALV ALBERTO (ANGRA1)	ANGRA DOS REIS
Bulgaria	NPP Kozloduy 1-2	Kozloduy
	NPP Kozloduy 3-4	Kozloduy
	NPP Kozloduy 5-6	Kozloduy
Canada	BRUCE A N. G. S.	TIVERTON, ONTARIO
	BRUCE B G. S.	TIVERTON, ONTARIO
	DARLINGTON NGD	BOWMANVILLE, ONTARIO
	GENTILLY II	GENTILLY, QUEBEC
	PICKERING N.G.S.	PICKERING, ONTARIO
	POINT LEPREAU	PT. LEPREAU, NEW BRUNSWICK
China	QSNPP	Hai Yan, Zhe Jiang
Czech Republic	NPP Dukovany 1-2	Dukovany
	NPP Dukovany 3-4	Dukovany
	NPP Temelin	Temelin
Finland	Loviisa NPP	Loviisa
	TVO I	Olkiluoto
	TVO II	Olkiluoto
	TVO III	Olkiluoto
Germany	AVR	Juelich
	HKG-THTR 300	Hamm
	KKW Brokdorf	Brokdorf
	KKW Brunsbuettel	Brunsbuettel
	KKW GR2. 3 & 4	Lubmin
	KKW GR3. 5	Lubmin
	KKW Grafenrheinfeld	Grafenrheinfeld
	KKW Greifswald 1 & 2	Lubmin
	KKW Grohnde	Emmerthal
	KKW Gundremmingen, Block B	Gundremmingen
	KKW Gundremmingen, Block C	Gundremmingen
	KKW Isar 1	Essenbach
	KKW Isar 2	Essenbach
	KKW Krümmel	Geesthacht
KKW Neckarwestheim 1	Neckarwestheim	
KKW Neckarwestheim 2	Neckarwestheim	

State <sup>a</sup>	Name of Facility	Location
	KKW Obrigheim	Obrigheim
	KKW Philippsburg 1	Philippsburg
	KKW Philippsburg-2	Philippsburg
	KKW Rheinsberg	Rheinsberg
	KKW Unterweser	Unterweser
	KKW Emsland	Lingen(Ems)
	KW Biblis A	Biblis
	KW Biblis B	Biblis
	KW Muelheim-Kaerlich	Muelheim-Kaerlich
	KWL-Lingen	Lingen
	NS "Otto Hahn"	Geesthacht
Hungary	Paks NPP I	Paks
	Paks NPP II	Paks
India	KAPS 1 & 2	SURAT, GUJARAT
	KKNPP	Kudankulam
	RAPS 1&2	RAWATBHATA, RAJASTHAN
	RAPS 3 & 4	RAWATBHATA, RAJASTHAN
	RAPS 5 & 6	Rawatbhata, Rajastan
	TAPS	TARAPUR, Maharashtra State
Iran, Islamic Republic of	BUSHEHR NPP	BUSHEHR , HALILEM
	IR360	IR360
Italy	Area Disattivazione Caorso	Caorso
	Centrale Latina	Borgo Sabotino
	Centrale Nucleare di Trino	Trino Vercellese
	Cirene (on load)	
	So.G.I.N. CN Del Garigliano	Sessa Aurunca(CE)
Japan	Fuku-I-1	Futaba-gun, Fukushima-ken
	Fuku-I-2	Futaba-gun, Fukushima-ken
	Fuku-I-3	Futaba-gun, Fukushima-ken
	Fuku-I-4	Futaba-gun, Fukushima-ken
	Fuku-I-5	Futaba-gun, Fukushima-ken
	Fuku-I-6	Futaba-gun, Fukushima-ken
	Fuku-N-1	Futaba-gun, Fukushima-ken
	Fuku-N-2	Futaba-gun, Fukushima-ken
	Fuku-N-3	Futaba-gun, Fukushima-ken
	Fuku-N-4	Futaba-gun, Fukushima-ken
	Genkai-1	Higashimatsuura-gun, Saga-ken
	Genkai-2	Higashimatsuura-gun, Saga-ken
	Genkai-3	Higashimatsuura-gun, Saga-ken
	Genkai-4	Higashimatsuura-gun, Saga-ken
	Hamaoka-1	Ogasa-gun, Shizuoka-ken
	Hamaoka-2	Ogasa-gun, Shizuoka-ken
	Hamaoka-3	Ogasa-gun, Shizuoka-ken
	Hamaoka-4	Ogasa-gun, Shizuoka-ken
	Hamaoka-5	Ogasa-gun, Shizuoka-ken
	Higashidoori-1	Shimokita-gun, Aomori-ken
	Ikata-1	Nishiuwa-gun, Ehime-ken
	Ikata-2	Nishiuwa-gun, Ehime-ken
	Ikata-3	Nishiuwa-gun, Ehime-ken
	Joyo	Higashi, Ibaraki-ken
	Kashiwazaki-1	Kashiwazaki-shi, Niigata-ken
	Kashiwazaki-2	Kashiwazaki-shi, Niigata-ken

State <sup>a</sup>	Name of Facility	Location
	Kashiwazaki-3	Kashiwazaki-shi, Niigata-ken
	Kashiwazaki-4	Kashiwazaki-shi, Niigata-ken
	Kashiwazaki-5	Kashiwazaki-shi, Niigata-ken
	Kashiwazaki-6	Kashiwazaki-shi, Niigata-ken
	Kashiwazaki-7	Kashiwazaki-shi, Niigata-ken
	Mihama-1	Mikata-gun, Fukui-ken
	Mihama-2	Mikata-gun, Fukui-ken
	Mihama-3	Mikata-gun, Fukui-ken
	Monju	Tsuruga-shi, Fukui-ken
	Ohi 1&2	Ohi-gun, Fukui-ken
	Ohi 3	Ohi-gun, Fukui-ken
	Ohi 4	Ohi-gun, Fukui-ken
	Ohma	Shimokita-gun, Aomori-prefect.
	Onagawa-1	Oshika-gun, Miyagi-ken
	Onagawa-2	Oshika-gun, Miyagi-ken
	Onagawa-3	Oshika-gun, Miyagi-ken
	Sendai-1	Sendai-shi, Kagoshima-ken
	Sendai-2	Sendai-shi, Kagoshima-ken
	Sendai-3	Satsumasendai-shi
	Shika-1	Hakui-gun, Ishikawa-ken
	Shika-2	Hakui-gun, Ishikawa-ken
	Shimane-1	Yatsuka-gun, Shimane-ken
	Shimane-2	Yatsuka-gun, Shimane-ken
	Shimane-3	Yatsuka-gun, Shimane-ken
	Takahama-1	Ohi-gun, Fukui-ken
	Takahama-2	Ohi-gun, Fukui-ken
	Takahama-3	Ohi-gun, Fukui-ken
	Takahama-4	Ohi-gun, Fukui-ken
	Tokai	Tokai-mura, Ibaraki-ken
	Tokai-2	Tokai-mura, Ibaraki-ken
	Tomari-1	Furui-gun, Hokkaido
	Tomari-2	Furui-gun, Hokkaido
	Tomari-3	Furui-gun, Hokkaido
	Tsuruga-1	Tsuruga-shi, Fukui-ken
	Tsuruga-2	Tsuruga-shi, Fukui-ken
Kazakhstan	BN-350	Aktau
Korea, Republic of	Kori-1	Pusan
	Kori-2	Pusan
	Kori-3	Pusan
	Kori-4	Pusan
	Shin Kori-1	Pusan
	Shin Kori-2	Pusan
	Shin Kori-3	Pusan
	Shin Kori-4	Pusan
	Shin Wolsong-1	Kyongju
	Shin Wolsong-2	Kyongju
	Ulchin-1	Ulchin
	Ulchin-2	Ulchin
	Ulchin-3	Ulchin
	Ulchin-4	Ulchin
	Ulchin-5	Ulchin
	Ulchin-6	Ulchin

State <sup>a</sup>	Name of Facility	Location
	Wolsong-1	Kyongju
	Wolsong-2	Kyongju
	Wolsong-3	Kyongju
	Wolsong-4	Kyongju
	Younggwang-1	Younggwang
	Younggwang-2	Younggwang
	Younggwang-3	Younggwang
	Younggwang-4	Younggwang
	Younggwang-5	Younggwang
	Younggwang-6	Younggwang
Lithuania	Ignalina NPP	Visaginas
Mexico	Central Laguna Verde Unit I	Muni. Al. Luc. Veracruz
	Central Laguna Verde Unit II	Muni. Al. Luc. Veracruz
Netherlands	EPZ. Borssele	Borssele
	N. V. GKN-Dodewaard	Dodewaard
Pakistan	CHASNUPP 2	
	CHASNUPP-1	KUNDIAN, DISTRICT MIANWALI
	KANUPP	KARACHI
Philippines	BNPP	Morong, Bataan
Romania	Cernavoda-3	Cernavoda
	Cernavoda-4	Cernavoda
	CNE Cernavoda 1	Cernavoda
	CNE Cernavoda NPP 2	Cernavoda
Slovakia	JAVYS NPP A-1	Jaslovske Bohunice
	JAVYS NPP V-1	Jaslovske Bohunice
	NPP Mochovce Units 1, 2	Mochovce
	NPP Mochovce Units 3, 4	Mochovce
	V-2 NPP	Jaslovske Bohunice
Slovenia	Krsko (NEK)	Krsko
South Africa	KOEBERG UNIT I	CAPE TOWN
	KOEBERG UNIT II	CAPE TOWN
Spain	Asco 2	Asco
	Asco NPP 1	Asco
	C.N. Almaraz 1	Almaraz
	C.N. Almaraz 2	Almaraz
	CN Cabrera	Almonacid de Zorita
	CN COFRENTES	Cofrentes
	CN TRILLO 1	Trillo
	CN Vandellos II	Vandellos
	NUCL. S. M. FAR.	Santa Maria de Garona
Sweden	Barsebaeck unit 1	Loeddekoepinge
	Barsebaeck unit 2	Loeddekoepinge
	Forsmark unit 1	Oesthammar
	Forsmark unit 2	Oesthammar
	Forsmark unit 3	Oesthammar
	Oskarshamn unit 1	Oskarshamn
	Oskarshamn unit 2	Oskarshamn
	Oskarshamn unit 3	Oskarshamn
	Ringhals unit 1	Ringhals
	Ringhals unit 2	Ringhals
	Ringhals Unit 3	Vaeroebacka
	Ringhals unit 4	Ringhals

State <sup>a</sup>	Name of Facility	Location
Switzerland	KKB BEZNAU-II	BEZNAU DOETTINGEN
	KKB IBEZNAU-I	BEZNAU DOETTINGEN
	KKG-GOESGEN	GOESGEN-DAENIKEN
	KKL-LEIBSTADT	LEIBSTADT
	KKM MUEHLEBERG	MUEHLEBERG
Ukraine	Chernobyl NPP	Chernobyl
	Khmelnitski 1	Neteshin
	Khmelnitski 2	Neteshin
	Rovno 1 & 2	Kuznetsovsk
	Rovno 3	Kuznetsovsk
	Rovno 4	Kuznetsovsk
	STH. Ukraine 1	Yuzhnoukrainsk
	STH. Ukraine 2	Yuzhnoukrainsk
	STH. Ukraine 3	Yuzhnoukrainsk
	Zaporozhe 1	Energodar
	Zaporozhe 2	Energodar
	Zaporozhe 3	Energodar
	Zaporozhe 4	Energodar
	Zaporozhe 5	Energodar
Zaporozhe 6	Energodar	
United Arab Emirates	Braka NPP	United Arab Emirates
Vietnam	Ninh Thuan 1 Plant Unit 1	Phuoc Dinh Comm. Thuan Nam Dt.
	Ninh Thuan 1 Plant Unit 2	Phuoc Dinh Comm. Thuan Nam DT.
	Ninh Thuan 2 Plant Unit 1	Vinh Hai Comm. Ninh Hai Dist.
	Ninh Thuan 2 Plant Unit 2	Vinh Hai Comm. Ninh Hai Dist.
<b>Research reactors and critical assemblies</b>		
Algeria	Es Salam Reactor	Ain Oussera
	NUR Reactor	Draria-BP29 Wilaya de Tipaza
Argentina	ARGENTINE REACTOR 0 (RA-0)	CORDOBA
	ARGENTINE REACTOR 1 (RA-1)	CENTRO ATOMICO CONSTITUYENTES
	ARGENTINE REACTOR 3 (RA-3)	CENTRO ATOMICO EZEIZA
	ARGENTINE REACTOR 4 (RA-4)	ROSARIO
	ARGENTINE REACTOR 6 (RA-6)	CENTRO ATOMICO BARILOCHE
	Argentine Reactor 8 (RA-8)	Pilcaniyeu
Australia	HIFAR	Lucas Heights, Sutherland
	MOATA	Lucas Heights, Sutherland
	OPAL	Lucas Heights, NSW, Australia
Austria	Atom. Oest. Univ.	Vienna
Bangladesh	ATOMIC ENERG. RES. ESTAB.	DHAKA
Belarus	SOSNY	Minsk
Belgium	BR1-CEN	Mol
	BR2	Mol
	CEN-VENUS	MOL
	Thetis Universiteit Gent	Gent
Brazil	Argonauta Reactor-IEN	RIO DE JANEIRO
	Brazilian Multipurpose Reactor	Ipero, Sao Paulo
	IPEN/MB01 Critical Assem.	SAO PAULO
	IRP-R1 Reactor-CDTN	BELO HORIZONTE
	Research Reactor IEA-R1	Cidade Univ. A. S. d. Oliveira

State <sup>a</sup>	Name of Facility	Location
Bulgaria	IRT-2000	Sofia
Canada	BIOLOGY, CHEMISTRY, PHYSICS	CHALK RIVER, ONTARIO
	DIF	CHALK RIVER, ONTARIO
	ECOLE POLYTECHNIQUE	MONTREAL, QUEBEC
	MCMASTER NUC. REACTOR	HAMILTON, ONTARIO
	NRU REACTOR	CHALK RIVER, ONTARIO
	NRX REACTOR	CHALK RIVER, ONTARIO
	SLOWPOKE ALBERTA	UNI. OF ALBERTA, EDMONTON
	SLOWPOKE DALHOUSIE	HALIFAX, NOVA SCOTIA
	SLOWPOKE KINGSTON	KINGSTON, ONTARIO
Chile	SLOWPOKE SASKATCHEWAN	SASKATOON, SASKATCHEWAN
	LA REINA REACTOR	SANTIAGO
	LO AGUIRRE EXPERIMENTAL REACT.	SANTIAGO
China	HTR-10	Nankou, Beijing
Colombia	IAN-R1 R. REACTOR	BOGOTA
Czech Republic	LR-0	Rez
	LVR-15	Rez
	VR-1	Prague
Dem. Republic of the Congo	TRIGA II REACTOR	KINSHASA
Denmark	Danish Decommissioning - DR3	Roskilde
Egypt	ET RR-1	INSHAS
	MPR (MULTI PURPOSE REACTOR)	AEA NUC RES C. near Inshas
Estonia	A.L.A.R.A.	Paldiski
Finland	FiR 1	Espoo
Georgia	Decom. IRT-M	Tbilisi
Germany	AKR-2	Dresden
	BER-II	Berlin
	FH-FURTW.	Furtwangen
	FRM	Garching
	FRM II	Garching
	Helmholtz-Zentrum Geesthacht	Geesthacht
	KFA-FRJ2	Juelich
	Labor-ST	Zittau
	SUR100	Hannover
	SUR-100	Stuttgart
	SUR100 FHU	Ulm
Ghana	SUR100-RWTH	Aachen
	SUR100-TUB	Berlin
	TRIGA Mainz	Mainz
	GHARR-1	LEGON-ACCRA
	GRR-1	Attikis
Hungary	Budapest Res. Reactor	Budapest
	Training Reactor	Budapest
Indonesia	P3TKN	Bandung
	PPNY	Yogyakarta
	RSG-GAS	Serpong
Iran, Islamic Republic of	HWZPR	ESFAHAN
	IR-40	
	LWSCR	ESFAHAN
	MNSR	ESFAHAN
	TEHRAN RES. REAC.(TRR)	TEHRAN

State <sup>a</sup>	Name of Facility	Location
Israel	ISRAEL R. R.-1(IRR-1)	SOREQ
Italy	AGN-201	Palermo
	CEC-Complexe-Essor	Ispra
	CISAM-RTS-1	San Piero a Grado
	CNEN-RB-3	Montecuccolino
	LE.N.A. Pavia	Pavia
	RB-1	Montecuccolino
	TAPIRO-Casaccia	Santa Maria di Galeria
	TRIGA-RC1 Mark II	Santa Maria di Galeria
Jamaica	CNS	KINGSTON
Japan	DCA	Oarai-machi, Ibaraki-ken
	FCA	Tokai-mura, Ibaraki-ken
	HTR	Kawasaki-shi, Kanagawa-ken
	HTTR	Higashi, Ibaraki-ken
	JMTR	Higashi, Ibaraki-ken
	JMTRC	Higashi-gun, Ibaraki-ken
	JRR-2	Tokai-mura, Ibaraki-ken
	JRR-3	Tokai-mura, Ibaraki-ken
	JRR-4	Tokai-mura, Ibaraki-ken
	KINKI	Higashiosaka-shi, Osaka-fu
	KUCA	Osaka
	KUR	Sennan-gun, Osaka
	Musashi Reactor	Kawasaki-shi, Kanagawa-ken
	NCA	Kawasaki-shi
	NSRR	Tokai-mura, Ibaraki-ken
	Rikkyo	Nagasaka, Kanagawa-ken
	TCA	Tokai-mura, Ibaraki-ken
TODAI	Tokai-mura, Ibaraki-ken	
TTR	Kawasaki-shi, Kanagawa-ken	
VHTRC	Tokai-mura, Ibaraki-ken	
Kazakhstan	Kurchatov Test Reactors	Kurchatov
	WWR-K	Almaty
Korea, Republic of	HANARO	Taejon
	Kyung Hee	Suwoon
Latvia	IRT	Salaspils
Libya	IRT-TAJURA	TAJURA
Malaysia	PUSPATI	Bangi, Selangor
Mexico	TRIGA MARK III	OCOYOACAC
Morocco	MA-R1	RABAT, AGDAL
Netherlands	HFR-Petten	Petten
	IRI. HOR	Delft
	LFR-Petten	Petten
Nigeria	NIRR-1	Ahmadu Bello University, Zaria
Norway	HBWR	HALDEN
	JEEP-II	KJELLER
Pakistan	PARR-1	RAWALPINDI
	PARR-2	RAWALPINDI
Peru	CNIP RP-10 R. REACTOR	LIMA
	RP-0 R. REACTOR	Lima
Philippines	PRR-1	Quezon City, Diliman
Poland	ANNA & AGATA	Otwock Swierk
	MARIA	Otwock-Swierk

State <sup>a</sup>	Name of Facility	Location
Portugal	RPI	Sacavem
Romania	IFIN-HH	Magurele
	Triga Res.& MTR	Pitesti-Mioveni
Serbia	RA-RB	Vinca
Slovenia	TRIGA II	Ljubljana
South Africa	SAFARI-I RESEARCH REACTOR	PELINDABA
Sweden	Studsvik AB and AB SVAFO	Studsvik
Switzerland	AGN 211-P	BASEL
	CROCUS	LAUSANNE
	PROTEUS	WUERENLINGEN
Syrian Arab Republic	MNSR	SYRIA
Tajikistan	Argus Research Reactor	Physical-Tech. Inst., Dushanbe
Thailand	ONRC	Ongkharak, Nakon Nayon
	TRR-1	Bangkok
Turkey	CEKMECE NUC. RES. & TR. CENTRE	ISTANBUL
	ITU-TRR-TRIGA MARK II	ISTANBUL
Ukraine	IR-100 Res. Reactor	Sevastopol
	WWR-M Res. Reactor	Kiev
Uzbekistan	IIN-3M	Tashkent
	WWR-SM	Ulugbek
Venezuela	RV-1 IVIC R. REACTOR	ALTOS DE PIPE
Vietnam	Da Lat Research Reactor	Da Lat, Lam Dong
<b>Conversion plants</b>		
Algeria	Pilot Uranium Conversion Plant	Draria Nuclear Research Center
Argentina	Experimental Dry Conversion	Bariloche
	UF6 PRODUCTION PLANT	PILCANIYEU
	UO2 CONVERSION PLANT	CORDOBA
	Uranium Powder Production Fac.	Las Mesillas, La Rioja Prov.
Brazil	UOC to UF6 Conversion	Ipero, Sao Paulo
Canada	Blind River	Blind River, Ontario
	Port Hope	Port Hope, Ontario
Chile	LAB. EXPERIMENT. DE CONVERSION	SANTIAGO
Iran, Islamic Republic of	UCF	Esfahan
Japan	JCO	Tokai-mura, Ibaraki-ken
	PCDF	Tokai-mura, Ibaraki-ken
Korea, Republic of	DUF4 Conv. Pl.	Taejon
Mexico	FUEL FRBRICATION PILOT PLANT	SALAZAR
Romania	Nat. Uranium Company	Feldioara
South Africa	Conversion Plant(U Plant)	PELINDABA
	HEU/LEU Conversion Plant	PELINDABA
Sweden	RMA	Stenstorp
<b>Fuel fabrication plants</b>		
Algeria	UDEEC	Draria Nuclear Site
Argentina	EXP.PL.FUEL MAT.& POWDER MET.	CENTRO ATOMICO CONSTITUYENTES
	FUEL. FAB. PLANT - FECN	CENTRO ATOMICO EZEIZA
	RES. REAC.FUEL ELEM. FAB.PLANT	CENTRO ATOMICO CONSTITUYENTES
	RES.REAC. FUEL FAB. PLANT	CENTRO ATOMICO EZEIZA
Belgium	FBFC Int.	Dessel
	FBFC Int.	Dessel



State <sup>a</sup>	Name of Facility	Location
	N.V. BN	Dessel
Brazil	Fuel Fabrication Plant-FEC	RESENDE
Canada	Cameco, PORT HOPE	PORT HOPE, ONTARIO
	FUEL ENG. MET. CHE. OP.	CHALK RIVER, ONTARIO
	FUEL FABRICATION FACILITY	CHALK RIVER, ONTARIO
	GE, Hitachi INC., TORONTO	TORONTO, ONTARIO
	GE, Hitachi PETERBOROUGH	PETERBOROUGH, ONTARIO
Chile	UNIDAD DE METALUR. FISICA(UMF)	SANTIAGO, CHILE
Egypt	FMPP (FUEL MANUF. PILOT PLANT)	INSHAS, 35 KM N/NE FROM CAIRO
	R & D - NFL	Inshas Nuc. Res. Center, Cairo
France	MELOX. MARCOULE	Chusclan
Germany	ADV. NUCLEAR FUELS	Lingen
	Siemens MOX II	Hanau
India	NFC	HYDERABAD
	NFC - NU	HYDERABAD
Indonesia	IEBE	Serpong
	IPEBRR	Serpong
Iran, Islamic Republic of	FMP	Isfahan
	FUEL FABRICATION LABORATORY	ESFAHAN NUC. TECH. CNTR (ENTC)
Italy	FN-Bosco Marengo	Bosco Marengo
Japan	GNF-J	Yokosuka-shi, Kanagawa-ken
	J-MOX	Oaza Obuchi, Rokkasho-mura
	MNF	Tokai-mura, Ibaraki-ken
	NFI Kumatori-1	Sennan-gun, Osaka
	NFI Tokai-1	Tokai-mura, Ibaraki-ken
	NFI Tokai-2	Tokai-mura, Ibaraki-ken
	PFPF	Tokai-mura, Ibaraki-ken
	PPFF	Tokai-mura, Ibaraki-ken
Kazakhstan	UMP	Ust-Kamenogorsk
Korea, Republic of	KNFFP	Taejon
Romania	SN NFP Subsidiary	Mioveni
South Africa	LEU FUEL FABRICATION PLANT	PELINDABA
	MTR Fuel Fabrication Plant	PELINDABA
Spain	ENUSA Fab. Juzbado	Juzbado
Sweden	Westinghouse Electric	Vaesteras/Finnslaetten
Turkey	NUCLEAR FUEL PILOT PLANT	ISTANBUL
<b>Reprocessing plants</b>		
Egypt	Hydrometallurgy unit	Inshas, Cairo
France	AREVA NC - UP2 et UP3	La Hague
Germany	WAK / VEK	Eggenstein-Leopoldshafen
India	PREFRE	TARAPUR Maharashtra State
Iran, Islamic Republic of	MIX FACILITY	End of North Karegar in Tehran
Italy	So.G.I.N. SpA - Impianto EUREX	Saluggia
	So.G.I.N. SpA - Trisaia	Rotondella
Japan	CPF	Tokai-Mura, Ibaraki-Ken
	RETF	Tokai-mura, Ibaraki-ken
	RRF	Ibaraki-ken
	RRP	Kamikita-gun, Aomori-ken
	SCF	Tokai-mura, Ibaraki-ken
	TRP	Tokai-mura, Ibaraki-ken

State <sup>a</sup>	Name of Facility	Location
<b>Enrichment plants</b>		
Argentina	Mock-up Laboratory	Pilcaniyeu
	Mol Exc & Iso-Sep Tech R&D Lab	Centro Atomico Bariloche
	URANIUM ENRICHMENT PLANT	PILCANIYEU
Australia	Silex	
Brazil	Isotopic Enrich.Lab.(LEI)	IPERO, SAO PAULO
	LASER SPECTROSCOP.LAB.(AR/LAS)	SAN JOSE DOS CAMPOS
	U-235 Centrifuge Enr. Plant	Resende
	Uran.Enrich.Pilot Plant(USIDE)	Ipero, Sao Paulo, Brazil
China	Shaanxi	Han Zhang, Shaanxi Province
France	Georges Besse II	Bollene
Germany	UTA 1 and UTA 2	Gronau
Iran, Islamic Republic of	FEP	Natanz
	FFEP	20 km northeast to Qom City
	PFEP	Natanz
Japan	CTF	Kitakami-gun , Aomori-ken
	NEP	Tomata-gun, Okayama-ken
	REP	Kamikita-gun, Aomori-ken
Netherlands	Urenco Nederland	Almelo
South Africa	KLD	Pelindaba
United Kingdom	Urenco E22, E23, A3	Capenhurst
<b>Separate storage facilities</b>		
Argentina	CENT.ST.IRR.SP.FISS.M.(DCMFEI)	CENTRO ATOMICO EZEIZA
	CENT.STORE SP.FISS.MAT.(DCMFE)	CENTRO ATOMICO CONSTITUYENTES
	DUE	Centro Atomico de Ezeiza
	Irrad. Res. React. Fuel Store.	CENTRO ATOMICO EZEIZA
	NUCLEAR MATERIAL STORAGE	CENTRO ATOMICO CONSTITUYENTES
	STORAGE BUNKER	CENTRO ATOMICO EZEIZA
Armenia	SSFS	Metsamor
Australia	Bulk Storage Facility	Lucas Heights, Sutherland
Belgium	Belgoprocess	Dessel
	Belgoprocess	Dessel
	ELBEL. DL. DS	Beveren
	Wet Store	Tihange
Brazil	Aramar Store	IPERO
Bulgaria	DSFSF KNPP 2	Kozloduy
	SFSF Kozloduy 1	Kozloduy
Canada	ACEL RESEARCH	PINAWA, MANITOBA
	DP DRY STORAGE	TIVERTON, ONTARIO
	DWMF	Darlington, ONTARIO
	FPSF	Chalk River Laboratories
	GENTILLY I	GENTILLY, QUEBEC
	NMSF	CHALK RIVER, ONTARIO
	PUFDSF	PICKERING, ONTARIO
	SPENT FUEL CANISTER STORAGE	CHALK RIVER, ONTARIO
	Waste Storage Facility	CHALK RIVER, ONTARIO
	Waste Storage Facility	CHALK RIVER, ONTARIO
	WUFDSF	TIVERTON, ONTARIO, NOG 2TO, CN
Czech Republic	ISFS Dukovany	Dukovany
	ISFS Temlin	Temelin

State <sup>a</sup>	Name of Facility	Location
	Radioactive Waste Rep. Richard	Litomerice
	VAO, HLWS	Rez
Denmark	DD Storage	Roskilde
	DD Waste	Roskilde
Finland	SF Repository	Olkiluoto
	TVO-KPA-STORE	Olkiluoto
Germany	Adv. Nuclear Fuels UF-6 Lager	Lingen
	AVR-BL	Juelich
	BZA Ahaus	Ahaus
	Energiewerke Nord GmbH	Lubmin
	EWN. ZLN	Lubmin
	HDB	Eggenstein - Leopoldshafen
	Kernmateriallager 87	Rosendorf
	KFA-AVR	Juelich
	KFK-FR-2	EGGENSTEIN-LEOPOLDSHAFEN
	NCS-Lagerhalle	Hanau
	PTB-Spaltstofflager	Hanau
	SZK Kruemmel	Geesthacht
	SZL Biblis	Biblis
	SZL Brokdorf	Brokdorf
	SZL Brunsbuettel	Brunsbuettel
	SZL Emsland	Lingen (Ems)
	SZL Grafenrheinfeld	Grafenrheinfeld
	SZL Grohnde	Emmerthal
	SZL Gundremmingen	Gundremmingen
	SZL Isar	Essenbach
	SZL Neckarwestheim	Neckarwestheim
	SZL Philippsburg	Philippsburg
	SZL Unterweser	Stadland
	TBH (B) 87.2	Rosendorf
	TBL-G	Gorleben
Hungary	Cent. Isotope Store	Budapest
	MVDS	Paks
India	TAPS AFR	TARAPUR, MAHARASHTRA STATE
Indonesia	TC and ISFSF	Serpong
Iran, Islamic Republic of	KWS	Karaj
Iraq	Tuwaitha Location C	Tuwaitha
Italy	Centro di Comune di Ricerca	Ispra
	Dep. Avogadro	Torino
	ESSOR STORAGE	Ispra
	Lab.Misure Nucleari PERLA	Ispra
	NUCLECO S.p.A.	Roma
Japan	Fugen	Tsuruga-shi, Fukui-ken
	Fuku-I-CSFS	Futaba-gun, Fukushima-ken
	JAERI Mutsu	Mutsu-shi, Aomori-ken
	KUFFS	Sennan-gun, Osaka
	NFI Kumatori-2	Sennan-gun, Osaka
	Ningyo R & D	Tomata-gun, Okayama-ken
	RFSC	Mutsu-shi, Aomori-ken
Kazakhstan	Baikal-1 DSFS	Kurchatov
	BN-350 Temp. Storage	Aktau
	Ulba Thorium Storage	Ust-Kamenogorsk

State <sup>a</sup>	Name of Facility	Location
Korea, Republic of	Acrylonitrile Plant	Ulsan
	NMSF	KAERI Site in Taejon
	Uranium Residue Storage Fac.	KAERI-DAEJEON
Lithuania	SNFS-1	Visaginas
	SNFS-2	Visaginas
Netherlands	COVRA	Vlissingen-Oost
	HABOG	Vlissingen
Poland	ZUOP	Swierk
Portugal	Inst. de Armazenagem	Sacavem
Romania	CNE Cernavoda IDSFS	Cernavoda
Russian Federation	IUEC Storage Facility	Angarsk
Slovakia	JAVYS ISFS	Jaslovske Bohunice
	JAVYS Nuclear Store	Jaslovske Bohunice
South Africa	BULK STORAGE FACILITY	PELINDABA
	E-Building	VALINDABA
	HEU Storage Vault	PELINDABA
	Koeberg Castor Storage Fac.	Cape Town
	THABANA PIPE STORE	PELINDABA
	WASTE STORAGE FACILITY	PELINDABA
	Y-Plant Storage Facility	PELINDABA
Spain	Z-Plant	PELINDABA
	Asco ATI	Asco
	ATI	Almonacid de Zorita
	CN Trillo	Trillo
Sweden	SKB Clab Store	Oskarshamn
Switzerland	SAPHIR	P.SHERRER INS.(PSI) WUERENLIN.
	ZWIBEZ KERNKRAFTWERK BEZNAU	KERNKRAFTWERK BEZNAU
	ZWILAG	WUERENLINGEN AARGAU
Ukraine	Chernobyl NPP-SFS	Chernobyl
	Chernobyl SNFSF-2	Chernobyl
	Khmelnitski FF Storage	Neteshin
	Rovno FF Storage	Kuznetsovsk
	Sth. Ukraine FF Storage	Yuzhnoukrainsk
	Zaporozhe FF Storage	Energodar
	ZAPOROZHE SFS	ENERGODAR
United Kingdom	SMP Export Facility	Sellafield
	SNM Store 9	Sellafield
	THORP Product Store	Sellafield
United States of America	KAMS Storage	Savannah River Site, USA
<b>Other facilities</b>		
Algeria	AURES I	Birine Nucl.Site (Ain Oussara)
Argentina	Alpha Laboratory	CENTRO ATOMICO CONSTITUYENTES
	ENRICHED URANIUM RECOVERY LAB.	CENTRO ATOMICO EZEIZA
	FISSION PRODUCTS DIVISION	CENTRO ATOMICO EZEIZA
	LAPEP	Centro Atomico Ezeiza
	TRIPLE ALTURA LABORATORY (LTA)	CENTRO ATOMICO EZEIZA
	URANIUM POWDER FAB. PLANT	CENTRO ATOMICO CONSTITUYENTES
Australia	R & D Labs	Lucas Heights, Sutherland
Belgium	Belgoprocess	Mol

State <sup>a</sup>	Name of Facility	Location
	CEN-LAB-PU	Mol
	I.R.E.	Fleurus
	IRMM.Geel	Geel
	SCK-CEN Lab.	Mol
Brazil	(LADESI)-COPESP	SAO PAULO
	FUEL DEVELOPMENT & TECH. FAC.	SAO PAULO, BRAZIL
	LABGENE	IPERO, ARAMAR, SAO PAULO, BR
	NUC. FUEL & INSTR. DEVEL. LAB.	SAO PAULO
	NUCLEAR MAT. LAB.-LABMAT	IPERO
	REPROCESS.PROJ.(IPEN-CNEN/SP)	SAO PAULO
Czech Republic	Lab. & Stores, Centr. Anal.Lab	Rez
	UJP	Prague
Denmark	Danish Decommiss. - Hotcell	Roskilde
Egypt	Molybdenum Production Unit	Inshas, Cairo
	NCB	Inshas
Georgia	Razmnozhitel-1	Tbilisi
	Sukhumi Inst.	Sukhumi
Germany	Inst. Kernchemie	Mainz
	JRC-ITU	Eggenstein-Leopoldshafen
	KFA-HZ	Juelich
	Lab. Juelich	Juelich
	PKA Gorleben	Gorleben
	WAK-Heisse Zellen der HVT	Eggenstein-Leopoldshafen
Indonesia	RMI	Serpong
Iran, Islamic Republic of	JHL	Tehran Nuc Res Center, Tehran
Italy	CNEN-ISTEC	Santa Maria di Galeria
	Impianto Plutonio	Santa Maria di Galeria
	OPEC 2-CAS	Santa Maria di Galeria
Japan	FMF	Higashi, Ibaraki-ken
	IRAF	Higashi-gun, Ibaraki-ken
	JAERI Oarai R & D	Higashi, Ibaraki-ken
	JAERI Tokai	Tokai-mura, Ibaraki-ken
	JNC Oarai R & D	Higashi, Ibaraki-ken
	JNC Tokai R & D	Tokai-mura, Ibaraki-ken
	Kumatori	Sennan-gun, Osaka
	Mitsui Iwakuni-Ohtake	Kuga-gun, Yamaguchi-ken
	Mitsui Osaka	Takai-shi, Osaka-fu
	NDC Fuel Hot Lab	Tokai-mura, Ibaraki-ken
	NERL	Tokai-mura, Ibaraki-ken
	NFD	Higashi, Ibaraki-ken
	NRF	Tsukuba-shi, Ibaraki-ken
	Showa	Kawasaki-shi, Kanagawa-ken
	Sumitomo-Chiba	Sodegaura-shi, Chiba-ken
	UML	Higashi, Ibaraki-ken
Korea, Republic of	ACPF	AT KAERI SITE, DAEJON
	DFDF	Taejon
	HFFL	Taejon
	IMEF	Taejon
	KAERI R&D Facility	Taejon
	PIEF	Taejon
	PRIDE	KAERI-DAEJEON
Libya	TAJURA URANIUM R&D FACILITY	TAJURA

State <sup>a</sup>	Name of Facility	Location
Netherlands	GCO/ECN Lab.	Petten
Norway	RESEARCH LABORATORIES	KJELLER
South Africa	DECONTAM. & WASTE RECOVERY PL.	PELINDABA
	HOT CELL COMPLEX	PELINDABA
	NU AND DU METALS PLANT	PELINDABA
Spain	C.A. El Cabril	El Cabril
Switzerland	CERN	SWITZERLAND
	E.I.R.	WUERENLINGEN
Ukraine	Chernobyl Conditioning	Chernobyl
	Chernobyl Unit 4 Shelter	Chernobyl
	KHFTI	Kharkov
	Sevastopol Subcritical Assy.	Sevastopol

<sup>a</sup> An entry in this column does not imply the expression of any opinion whatsoever on the part of the Agency concerning the legal status of any country or territory or of its authorities, or concerning the delimitation of its frontiers.

**Note:** The Agency was also applying safeguards at 17 facilities in Taiwan, China

**Note:** Additionally under Agency safeguards were 529 locations outside facilities (LOFs) in 107 States and in Taiwan, China.