

2014 NUCLEAR SECURITY SUMMIT

NATIONAL REPORT OF THE REPUBLIC OF SOUTH AFRICA

Support for international instruments related to nuclear security

South Africa is party to the *Convention for the Suppression of Acts of Nuclear Terrorism* and the *Convention on the Physical Protection of Nuclear Material* (CPPNM). South Africa has commenced the process towards joining the 2005 *CPPNM Amendment*.

South Africa endorsed the *IAEA Code of Conduct on the Safety and Security of Radioactive Sources*, and subscribes to the Code's supplementary *Guidance on the Import and Export of Radioactive Sources*.

South Africa follows the guidance and recommendations provided by the IAEA in its *INFCIRC/225/Rev.5*, related to the physical protection of nuclear material and nuclear facilities.

South Africa has ratified the thirteen international conventions against terrorism.

Legislative Framework

South Africa has a wide-ranging legislative and regulatory framework that enables relevant South African authorities to deal with issues related to physical protection of nuclear material and safety, which includes the Nuclear Energy Policy of 2008, Nuclear Energy Act, 1999 (Act 46 of 1999) and the National Nuclear Regulator Act, 1999 (Act 47 of 1999). Other related legislation includes Non-Proliferation of Weapons of Mass Destruction Act, 1993 (Act 87 of 1993); National Radioactive Waste Disposal Institute Act, 2008 (Act 53 of 2008); the Hazardous Substances Act, 1973 (Act 15 of 1973); National Strategic Intelligence Act, 1994 (Act 39 of 1994); National Key Points Act, 1980 (Act 102 of 1980); Disaster Management Act, 2002, (Act 57 of 2002); and the Protection of Constitutional Democracy Against Terrorist and Related Activities Act, 2004 (Act No. 33 of 2004).

Co-operation with the IAEA

South Africa conducted the *Integrated Nuclear Infrastructure Review* (INIR) mission with the IAEA in February 2013 with the objective of assessing the country's readiness for the expansion programme. South Africa is the first country with an operating nuclear power reactor to conduct the INIR mission.

Since 2008 the country has been implementing the IAEA *Integrated Nuclear Security Support Plan* (INSSP) with the objective of enhancing the Physical Protection of Nuclear Material.

The country is a Participating State in the IAEA's *Incident and Illicit Trafficking Database* (ITDB).

Nuclear Material

The Nuclear Energy Corporation of South Africa (NECSA) subsidiary, NTP Radioisotopes, is one of the leading suppliers of molybdenum-99.

In 2009 conversion of NECSA's SAFARI reactor, to utilise Low Enriched Uranium (LEU), was completed. The reactor was previously utilizing Highly Enriched Uranium.

South Africa has repatriated foreign-origin spent fuel that was utilised in the SAFARI research reactor.

Support for Nuclear Security-Related International Activities

Radioactive Sources: In cooperation with the IAEA, NECSA developed the so-called mobile hot cell facility, providing developing countries with a specialized facility to safely and securely store high-activity radioactive sources after being used in medical applications and/or to secure orphan sources.

UNSCR 1540: South Africa chaired the United Nations Security Council Committee established pursuant to Resolution 1540 (2004). South Africa hosted the *Workshop on the Implementation of Security Council Resolution 1540 (2004) for African States* in South Africa during November 2012, and will host the *Workshop for the implementation of UNSC Resolution 1540 (2004) for English-speaking Member States* in South Africa during April 2014.

Workshops: South Africa conducted the following workshops with the objective of enhancing nuclear security at its nuclear installations:

- Regional Workshop on Foundations of Physical Protection of Facilities Holding Nuclear or other Radioactive Material, 15-19 April 2013 in Cape Town.
- National Workshop on the maintenance and Review of the Design Basis Threat, 21-23 October 2013 in Pretoria.
- Regional Training Course on Nuclear Security Detection Architecture, 02-06 December 2013 in Cape Town.

Enhanced Efforts to Combating Illicit Trafficking in Nuclear and Radiological Materials

South Africa is continuing with its programme to recover, consolidate and return disused and orphan radioactive sources throughout Africa and some non-African countries.

South Africa is in the process of finalising the establishment of the nuclear forensics capability.

South Africa, through NECSA, participates in the safe recovery and storage of radioactive sources and with regard to combating illicit trafficking of nuclear material.

NECSA's SHARS technology and personnel are being utilised by the IAEA on missions to recover radioactive sources.

Establishment of Centres of Excellence and Support

South Africa participates in the international network for Nuclear Security Training and Support Centres. South Africa recognises the need for a Nuclear Security Support Centre to coordinate nuclear security activities in the country and is committed to establishing such a Centre to ensure sustainability of expertise in the nuclear security field.