

**Comissão Reguladora para a
Segurança das Instalações Nucleares**

**Convention on Nuclear Safety
Second Extraordinary Meeting**

National Report of Portugal

2012

Convention on Nuclear Safety

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1. Introduction

The Convention on Nuclear Safety (CNS) was signed by Portugal on October 3, 1994, approved by the Parliament by Resolution 9/98, of January 22, 1998 and ratified by Presidential Decree 9/98, of March 19. The instrument of ratification was deposited on May 20, 1998, and the Convention entered into force on August 18, 1998.

As reported in the last review meeting, Portugal has no nuclear installations as defined in the CNS, and all exploration of uranium ore was terminated in the year 2000. The national regulatory infrastructure related to Nuclear Safety and Radiation Protection, in general, as well as the one applicable to the only existing “nuclear” facility, the Portuguese Research Reactor (RPI), are subject to some of the CNS reporting requirements.

The RPI is a swimming pool type research reactor (1 MW) operated by the *Instituto Superior Técnico* (IST), where the *Instituto Tecnológico e Nuclear* (ITN - Nuclear and Technological Institute) was merged in March 2012 by the Decree-Law nr. 29/2012, of February 9. The IST is a School of Engineering of the Technical University of Lisbon, known informally in Portuguese as the Técnico.

Recently, the Decree-Law 30/2012, of February 9, created the COMRSIN (Regulatory Commission for the Safety of Nuclear Installations), establishing it as a national regulatory body for nuclear safety.

2. External Events, Design Issues, and Severe Accident Management and Recovery

The RPI was constructed taking into account the historical seismicity of the region of Lisbon. In the 2007 update of the safety studies of the RPI, an earthquake was taken as initiating event for the Beyond Design Basis Accident. As the power of the RPI is only 1 MW, there is no fuel damage even in the case of a complete loss of water from the pool, regardless of the status of the power supplies. These safety studies were approved by the licensing authority for nuclear installations after a reasoned opinion from an external expert indicated by the IAEA.

Following the Fukushima accident, the operator has updated the information available on tsunami events. Recent literature shows that the tsunami waves following the 1755 earthquake are less than 1m high in the Tagus river at a point close to the RPI. As the reactor is located 30 m above the sea level, this is not a significant issue for the safety of the installation. This update was discussed with the Independent Commission of Radiological Protection and Nuclear Safety (CIPRSN).

Thus it was possible to conclude that additional measures to adjust the conditions of the installations in case of earthquake followed by tsunami will not be required.

3. National Organizations

Recently, the Decree-Law 30/2012, of February 9, created the COMRSIN (Regulatory Commission for the Safety of Nuclear Installations), establishing it as a national regulatory body for nuclear safety only, in response to the transposition of Council Directive 2009/71/Euratom, of June 25, establishing a Community framework for the nuclear safety of nuclear installations, and replaces the CIPRSN. Additionally, it is in discussion the project of the Decree-Law which foresees the national general safety requirements. This new Decree-Law will supplement the principle of primary responsibility for nuclear safety of the licensee, which is already established in the article 12 (1) of the Decree-Law 30/2012.

4. Emergency Preparedness

According to the answer to the topic - External Events, Design Issues, and Severe Accident Management and Recovery, additional measures were not deemed necessary.

5. International Cooperation

Decree Law 36/80, of May 30, ratifies a Portugal-Spain agreement concerning nuclear installations near the border between the two countries – in a strictly legal approach, however, it should be noted that there are no installations presently that fall under that category and to which, therefore, this agreement could be applied.

In order to be able to give information according to the obligations under the Convention on Early Notification of a Nuclear Accident, of which Portugal is part, and also according to Council Decision no. 87/600/EURATOM, Portugal installed an environmental monitoring network, called RADNET, that is managed under supervision of the Portuguese Environment Agency APA. This national detection system is connected to a communication network between the EC and the Member States, through the “European Community Urgent Radiological Information Exchange” ECURIE. Communication about radiological information is exchanged with ECURIE not continuously, but only in case of an emergency. Portugal participates also in the European platforms EURDEP (European Radiological Data Exchange Platform) and RODOS (Real Time On-Line Decision Support for Nuclear Off-site management).

With respect to international emergencies, Portugal participates in respective international activities of the Nuclear Energy Agency NEA (such as Convention Exercises ConvEX) and IAEA (International Nuclear Emergency Exercises INEX).