

Convention on Nuclear Safety

**Estonian National Report on lessons learned and actions taken
in response to the Fukushima Daiichi nuclear accident**

Second Extraordinary Meeting (August 2012)

Environmental Board, Radiation Safety Department, Estonia

**Tallinn
May 2012**

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1. Foreword

The Convention on Nuclear Safety came into force for Estonia on 4 May 2006. The present report is the Estonian National Report to the Second Extraordinary Meeting of the Convention, focused on the lessons learned and the actions, responses and developments initiated or influenced by the accident at the Fukushima Daiichi NPP.

The activities by Estonian authorities covered in this report were already initiated before the Fukushima accident, but as the scale and severity of the accident became clear, work in progress, if affected, had to be revised and re-evaluated and necessary corrections or further specifications introduced.

Estonia is a State that has no nuclear facilities under the definition given in Convention. There are no plans to build an NPP in Estonia at present time. After the Fukushima accident, the focus of Estonia in nuclear safety is primarily related to the safety of nuclear installations in the neighbouring countries and to the implications that accidents at such installations, should they occur, may have on the health of the population and on the environment. There is a number of NPPs in neighbouring countries close to Estonian borders – the closest one is approximately 70 km away. Therefore, it is of utmost importance for Estonia to fulfil its obligations according to the Article 16, to "take the appropriate steps for the preparation and testing of emergency plans for their territory that cover the activities to be carried out in the event of such an emergency".

This report is structured according to the topics as defined in the Guidance for preparation of National Reports to this Extraordinary Meeting. As there are no nuclear facilities in Estonia, the report covers the topics 4 – National Organizations, 5 – Emergency Preparedness and Post-Accident Management (Off-Site), and 6 – International Cooperation.

The report is prepared by the Environmental Board under the Ministry of Environment.

2. Topic 4 – National Organizations

Development of legal framework is ongoing process, however the Fukushima accident stressed the importance of further defining the roles and responsibilities, means and ways of communication between all the parties involved to ensure an effective decision-making process during crisis situations.

Activity	Schedule	Result
1. Radiological Emergency Risk Assessment	Completed August 2011	Updated
2. Revision of Radiological Emergency Response Plan	Completed August 2011	More detailed responsibilities and communication procedures
3. Revision of Emergency Act	Completed December 2011	More detailed responsibilities and communication procedures
4. Revision of Rescue Act	Completed December 2011	More detailed responsibilities and communication procedures

The Emergency Act provides the legal basis for the crisis management system covering preparedness for and response to emergencies and designates the Ministry of Interior (MI) to act as a national coordination authority, whose function, among others, is to coordinate the arrangements for preparedness and response to radiological emergencies.

The Environmental Board (EB) under the Ministry of Environment functions as a national competent authority in preparedness and response to radiological emergencies. The EB is also responsible for providing environmental and individual radiation monitoring in the Estonian territory.

The Rescue Board (RB) under the Ministry of Interior is the professional organization which responds to an emergency and performs rescue works.

The functions and responsibilities of all State authorities and response organizations to be involved in response to radiological emergencies are summarized in the national Radiological Emergency Response Plan, approved by the Estonian Government on the 4th of August 2011.

3. Topic 5 – Emergency Preparedness and Response and Post-Accident Management (Off-Site)

As Estonia has no nuclear installations on its own territory, accident scenarios involving transboundary release of radioactive materials become particularly important. Estonia has well established, automated Early Notification System in place for emergencies. It is composed of 10 Permanent Monitoring Stations. However, the equipment has been in service since 1990s and needs renewal.

Another identified field that needs strengthening is the capability of taking and analysing environmental samples in emergency situation on rather large area. Therefore the mobile laboratory equipment needs renewal, preferably giving due consideration to harmonization and compatibility with similar equipment in use in neighbouring countries.

In concert with changes in legislative framework, Estonia has revised its Emergency Preparedness and Response procedures, with special attention to communication between the authorities and to the public. In order to assess the arrangements and capabilities of Estonia for preparedness and response to a nuclear or radiological emergency, Estonia hosted the IAEA EPREV Mission in the end of 2011.

Activity	Schedule	Result
1. Swiss-Estonian Cooperation Project on Renewal of Permanent Monitoring Stations Network within the Early Warning System	Started, planned end December 2013	Renewed PMS network of up to 20 stations
2. Project on Acquisition of Mobile Laboratory	Started, planned end December 2013	New mobile laboratory in use, staff adequately trained
3. IAEA EPREV Mission to assess national EPR capabilities in Estonia	2011-09-26 to 2011-10-05, completed	Conclusions available at www.keskkonnaamet.ee

The activities undertaken shall provide for long term reliability of Estonia's capabilities to duly fulfil its obligations under the Convention.

4. International Cooperation

The importance of international cooperation was further highlighted during the Fukushima accident and recovery actions.

Estonia is a Contracting Party to the International Convention on Early Notification of a Nuclear Accident and to the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency. To facilitate international cooperation, the European Union Chemical and Radiological Emergency Management Exercise 2011 EU Cremex 2011 was held in Estonia in May 2011. Even though the planning of the event started much earlier than the Fukushima accident happened, it proved to provide valuable experience in testing arrangements in requesting and receiving international assistance.

Shortly after the Fukushima accident, in line with other European countries, Estonia increased the frequency of taking high-volume air samples and increased the number of radionuclides analysed in those samples. The results were reported to the EURDEP database managed by the European Commission's Joint Research Centre.

Activity	Schedule	Result
1. EU Cremex 2011	May 15-21, 2011	Tested crisis management system and coordination of international assistance
2. Increased exchange of environmental radiation monitoring data with EC JRC	March – May 2011	Tested capabilities of environmental radiation monitoring and sharing of information internationally

5. Summary Table and Conclusions

Summary Table		
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Topic 4 – National Organizations		
1. Radiological Emergency Risk Assessment	Completed August 2011	Updated
2. Revision of Radiological Emergency Response Plan	Completed August 2011	More detailed responsibilities and communication procedures
3. Revision of Emergency Act	Completed December 2011	More detailed responsibilities and communication procedures
4. Revision of Rescue Act	Completed December 2011	More detailed responsibilities and communication procedures
Topic 5 – Emergency Preparedness and Response and Post-Accident Management (Off-Site)		
1. Swiss-Estonian Cooperation Project on Renewal of Permanent Monitoring Stations Network within the Early Warning System	Started, planned end December 2013	Renewed PMS network of up to 20 stations
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3. IAEA EPREV Mission to assess national EPR capabilities in Estonia	2011-09-26 to 2011-10-05, completed	Conclusions available at www.keskkonnaamet.ee
Topic 6 – International Cooperation		
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2. Increased exchange of environmental radiation monitoring data with EC JRC	March – May 2011	Tested capabilities of environmental radiation monitoring and sharing of information internationally

In summary, the experience gained from the aftermath of Fukushima accident has greatly influenced the development of infrastructure and capabilities of Estonia to fulfil its obligations under the Convention, especially in the area of Emergency Preparedness and Response. Estonian authorities are fully committed to further enhance radiological and nuclear safety in Estonia and to participate actively in international cooperation to achieve common goals.