# National Progress Report: Denmark

March 31, 2016

Since the 2014 Nuclear Security Summit, Denmark has strengthened nuclear security implementation and built up the global nuclear security architecture by…

**…Strengthening Nuclear and Other Radioactive Material Security**

- Denmark maintains a high level of security regarding nuclear and radioactive materials stored at the Danish national nuclear site at Risoe, and for radioactive sources used in industry, health care and research as well. The security of radioactive sources in Denmark is regulated through legislation and associated orders, closely reflecting the recommendations provided in the IAEA Nuclear Security Series as well as the IAEA Code of Conduct.
- Security measures related to nuclear facilities are graded according to the state of decommissioning or plans for decommissioning for these facilities. Denmark has no operational nuclear reactors, neither for power production nor research purposes. In 2014, police and military special forces conducted an exercise at the national nuclear facility site at Risoe. In addition, an inspection of computer systems with safety and security functions at the national nuclear site was carried out in the same year.
- The Danish Health Authority underpins a system for establishing and maintaining a high level of security for radioactive sources in Denmark with a graded focus on security and reference to "Categorization of Radioactive sources, IAEA, RS-G-1.9, 2005". As part of this effort, the Danish Health Authority launched an inspection campaign focusing on the security of blood irradiator facilities using Cs-137. The campaign started in 2015 and will continue in 2016 to focus on the security of such sources with a particular terrorism threat potential.
- From 2015 through 2017, The Danish Health Authority initiated an inspection campaign of industrial radiographers using sealed source irradiators. The campaign draws on the experience and feedback from the IAEA ISEMIR project, and includes a review of safety as well as security aspects of the use of sealed sources in industrial radiography.
- A revised nuclear emergency preparedness plan came into force in 2014. The plan uses an all-hazards approach and sets out roles and responsibilities for the governmental agencies which have a role during a nuclear or radiological emergency. These include Danish Emergency Management Agency, the Danish Health Authority, Danish Police, Danish Defense and Danish Veterinary and Food Administration. The plan ensures fast and coordinated decision making through a joint national operational staff and makes sure that all

relevant national resources will be available during an accidents or incident with nuclear/radiological materials.

- *Denmark is committed to strengthening nuclear security through reviews and updates as needed of the security infrastructure for nuclear and radioactive materials in Denmark. As part of the implementation of the Basic Safety Standards Directive**[1]**, Denmark plans to call for an IAEA IRRS mission including a security module, in order to address nuclear security aspects in a manner consistent with the state of decommissioning or plans for decommissioning of nuclear facilities in Denmark.*

**…Minimizing Nuclear and other Radioactive Materials**

- Following inspections of the security of blood irradiator facilities using Cs-137, operational activities at one facility were terminated in 2014 and another facility is planned for termination in 2016, in both cases due to the perspectives of continued operations under a strengthened security regime. The total number of Cs-137 based blood irradiator facilities in Denmark is thus expected to be 12 by the end of 2016.
- *Denmark is committed to improving security of high activity sources in blood irradiator facilities through limiting the number of such sources in Denmark. The Danish Health Authority will actively promote this goal by selectively accepting applications for new blood irradiator facilities based on x-ray technologies and not high activity sources.*

**…Supporting Multilateral Instruments**

- Denmark ratified the CPPNM in 1991 and approved the 2005 amendment to the CPPNM in 2010. Denmark ratified ICSANT in 2007.
- Denmark and Greenland has signed an agreement concerning the special foreign-, defense- and security policy issues related to the possible future mining and export of uranium in Greenland in January 2016. While Denmark is responsible for non-proliferation matters in the Kingdom of Denmark, especially safeguards, security and dual-use exports, the agreement establish a framework for at shared approach to ensure compliance with the Kingdom of Denmark's international non-proliferation obligations. The agreement underlines the joint Danish and Greenlandic commitment to observe the highest international standards comparing with other uranium supplier states. The agreement also serves as a basis for forthcoming Danish legislation for Greenland on safeguards and export

controls, including export of uranium being subject to nuclear cooperation agreements to provide assurances that exports are properly protected and used for peaceful purposes. As part of the agreement, the territorial restrictions regarding six nuclear conventions for Greenland will be lifted. This includes the International Convention for the Suppression of Acts of Nuclear Terrorism and the Amendment to the Convention on the Physical Protection of Nuclear Material.

- *Denmark is committed to lifting the reservations made when ratifying the CPPNM and approving its amendment and when ratifying ICSANT so that these instruments will also apply to Greenland*
- *Denmark is committed to continue to strengthen the non-proliferation of the Kingdom of Denmark as Greenland moves towards supplier status. This will include implementing new legislation on safeguards and export-controls for Greenland, ensuring high level of security in Greenland and lifting of the territorial restrictions of six nuclear conventions for Greenland.*

**…Collaborating with International Organizations**

- In collaboration with the Nordic countries Denmark continues to develop the so-called Nordic Manual (NORMAN) with guidelines for notification of neighboring countries in the event of accidents and incidents, such as e.g. sources out of regulatory control. The work is done within the framework of the Nordic Emergency Preparedness Group under the auspices of the Directors of the Nordic Radiation Protection and Safety Authorities.
- The Danish Emergency Management Agency has over the past few years significantly upgraded the nuclear training program for first responders. This means that Denmark can now on short notice deploy a number of highly skilled field assistance teams in nuclear detection. The teams can map a radioactive contamination, perform nuclide identification and estimate doses.
- Denmark is a dedicated contributor to the IAEA's Nuclear Security Fund. The most recent contribution of DKK 8,000,000 was made in December 2014 and aims to support the implementation of the IAEA's Nuclear Security Plan for 2014-2017and subsequent plans. This brought Denmark's contribution to the Fund to a total of DKK 26,000,000.
- Denmark subscribed to the Joint Statement on Strengthening Nuclear Security Implementation made by a number of states in the context of the 2014 NSS and has

supported the initiative to open up this statement for subscription by further IAEA Member States.

- *Denmark is committed to enlisting relevant national operational assets to IAEA Response and Assistance Network (RANET) in 2016. Operational units with radionuclide detection and identification capability will be made available for RANET together with advanced systems and expertise for dispersion calculation and decision support.*

[1] Council Directive 2013/59/Euratom of 5 December 2013 laying down basic safety standards for

protection against the dangers arising from exposure to ionising radiation, and repealing

Directives 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom and

2003/122/Euratom