

EXECUTIVE SUMMARY

At the request of the Government of the Netherlands, an international team of senior safety and radiation protection experts met with representatives of the Ministry of Economic Affairs (EZ), the Ministry of Health, Welfare and Sport (VWS) and the Ministry of Infrastructure and Environment (I&M) of the Netherlands from 3 to 13 November 2014 to conduct an Integrated Regulatory Review Service (IRRS) mission. The purpose of the IRRS mission was to perform a peer review of the Netherlands's national regulatory framework for nuclear and radiation safety. As recommended by the IAEA Nuclear Safety Action Plan, special attention was given to regulatory implications in the national framework for safety of the TEPCO-Fukushima Daiichi accident.

The IRRS mission covered all nuclear and radiological facilities and activities regulated by the Netherlands. The review compared the Netherlands regulatory framework for safety against IAEA safety standards as the international benchmark for safety. The mission was also used to exchange information and experience between the IRRS review team members and the Dutch counterparts in the areas covered by the IRRS.

The IRRS team consisted of 20 senior regulatory experts from 17 IAEA Member States, five IAEA staff members, one IAEA administrative assistant and two observers. The IRRS team carried out the review in the following areas: responsibilities and functions of the government; the global nuclear safety regime; responsibilities and functions of the regulatory body; the management system of the regulatory body; the activities of the regulatory body including the authorization, review and assessment, inspection and enforcement processes; occupational exposure control of nuclear facilities, development and content of regulations and guides; emergency preparedness and response; medical exposure control; public and environmental exposure control; transport, and waste management and decommissioning.

In addition, two policy issues were discussed. These were the Dutch approach of implementing safety requirements through license conditions rather than regulations, and the separation of inspection of regulated facilities and activities from those of policy making, the development of legislation and licensing activities.

In preparation for the IRRS mission the Netherlands conducted a self-assessment and prepared a preliminary action plan to address weaknesses that were identified. The results of the self-assessment and supporting documentation were provided to the team as advance reference material for the mission. During the mission the IRRS team performed a systematic review of all topics by reviewing the advance reference material. Team members also observed regulatory activities and conducted interviews and discussions with management and staff from the Directorate of Nuclear Installations and Safety (NIV) and the Netherlands Enterprise Agency (RVO) from the EZ Ministry; management and staff from KFD, TAN, HGS of the Inspectorate for Human Environment and Transport and representatives from the Ministry of Health, Welfare and Sport (VWS). IRRS team members observed inspections at various facilities.

Throughout the mission, the IRRS review team was extended full cooperation in the regulatory, technical, and policy issues by all parties in a very open and transparent manner.

The possible implications of the TEPCO Fukushima Daiichi accident on nuclear and radiation facilities in the Netherlands were well recognized by the Dutch regulators in the past, and that the IRRS team did not find any unresolved important related issue.

The IRRS review team observed that all Dutch counterparts were committed to provide as good as possible regulatory functions covering a small but complex and diverse nuclear programme and a diverse range of activities with radioactive sources in the country. The most significant challenge at the time of the mission was a complexity of regulatory responsibilities divided among many administrations within several ministries.

The IRRS team found that the main challenge that faces the Netherlands over the next several years is a consolidation of several authorities into the single independent administrative authority.

The IRRS review team identified two good practices and made recommendations and suggestions that indicate where improvements are necessary or desirable to continue enhancing the effectiveness of regulatory functions in line with IAEA safety standards.

The good practices identified by the IRRS review team are the Dutch system for protection from orphan sources of ionizing radiation in scrap metal and the regulatory body's initiative to create an international forum of nuclear regulators of countries operating nuclear power plants of German origin.

The IRRS review team identified certain issues warranting attention or in need of improvement and believes that consideration of these would enhance the overall performance of the regulatory system. Most important are:

- National policies on nuclear and radiation safety, radioactive waste management and associated financial provisions for decommissioning and disposal should be consolidated with a special emphasis on assuring sustainability of human resources in the future.
- The new regulatory body should ensure that its structure and organization promote a common safety culture which will enable regulatory functions to be discharged in an integrated and coordinated manner.
- The regulatory body should be assured independence from undue political influence. The communication and cooperation between different parts of the regulatory body should be enhanced. Sufficient resources should be made available.
- The integrated management system of the regulatory body should be finalized and should include descriptions of all relevant processes, systematic training and qualification of regulatory staff, consolidation of the various safety-related records systems and document management systems.
- The regulatory body should further develop and periodically review regulations and guides to improve consistency, clarity and transparency in the licensing processes of the different facilities and activities to

strengthen the regulatory framework in the area of emergency preparedness and response as well as patient and public protection.

- Inspections should be systematically planned and prioritized. Inspection findings should be effectively tracked and the effectiveness of enforcement should be periodically reviewed.

The IRRS team noted that the Dutch Council of Ministers decided on 24 January 2014 that the expertise in the area of nuclear safety and most of the expertise on radiation protection will be brought together in a single new administratively independent Authority in the course of 2015. Once in place the new regulatory body will be the Authority for Nuclear Safety and Radiation Protection (ANVS) under the Minister of Infrastructure and the Environment. Therefore, the Netherlands has already begun to address several of the recommendations and suggestions identified by the IRRS team. An IAEA press release was issued at the end of the IRRS Mission.