

6 SAFETY RECOMMENDATIONS

6.1 Radiation source life cycle management

The accident indicates negligent behaviour in ensuring preparedness for deviations with regards to measures aimed at decommissioning small radioactive waste and the related final disposal, such as the implementation of measures relating to the breakage of the radiation source and the treatment of a broken source. To improve safety, OTKES recommends that:

All parties involved with treatment of minor radioactive waste are to follow the established measures for ensuring the integrity of radiation sources, as described in the radiation safety instructions, for the reception, transport, treatment and packaging for final disposal of radiation sources. [2017-S10]

The necessary measures are already described in the authorities' instructions and the instructions of the current operator. The adequacy of the measures, the expertise needed and the suitability of the tools must be evaluated, and all the necessary improvements must be made. In the future, all the work phases in the implementation of the measures must be documented. In addition, preparedness for extraordinary events must be improved, especially with regards to accidents that are not dependent on the operator's own actions, such as a fire in the building in which the operations are carried out or a traffic accident during transport.

6.2 The binding nature of authorities' instructions concerning radiation sources

The operators in the sector have different views on the binding nature of radiation safety instructions. For this reason, many practices are in use in the sector, for example, with respect to taking swab samples during the treatment of radiation sources. According to the current instructions, the monitoring of individual radiation sources ends when they are dismantled. In order to unambiguously clarify the binding nature of the radiation safety instructions, the Safety Investigation Authority recommends that:

The Radiation and Nuclear Safety Authority unambiguously specifies which parts of the radiation safety instructions are binding and which parts intended as guidelines, in addition to overseeing the implementation of the instructions through uniform regulatory practice and communicating about the matter to all operators in the sector. [2017-S11]

6.3 Cooperation between the highest supervisory bodies for radiation and nuclear safety

Uniform procedures have not been established for the treatment, storage and final disposal of radioactive waste generated outside of nuclear power plants (apart from the state). Granting of such licences and the related supervision has been dispersed among various authorities. Approved procedures are in place at Finnish nuclear power plants for the treatment and final disposal of radioactive waste generated at the plants but the operating licences of nuclear power plants do not permit the final disposal of untreated waste. In order to establish

procedures for waste generated outside of nuclear power plants, the Safety Investigation Authority recommends that:

The Ministry of Social Affairs and Health and the Ministry of Economic Affairs and Employment jointly establish procedures for granting licences for and managing radioactive waste in order to ensure that all radioactive waste generated in Finland can be handled, stored and disposed of safely in our country in the event that returning it to the manufacturing country via the importers proves inappropriate or impossible. [2017-S12]

It is possible to continue to agree on the implementation of the state's waste management obligations with the operators who are currently in charge of the final disposal of radioactive waste and the state's waste, such as nuclear power companies. The Ministry of Social Affairs and Health is responsible for ensuring that such agreements cover all the services required in the implementation of waste management. The Ministry of Economic Affairs and Employment is responsible for ensuring that the operating licences of final repositories also permit the selling of treatment and final disposal services to the state and to actors who handle waste management on behalf of the state.

6.4 Communications at STUK

STUK has an operating model for communications during situations that require full preparedness. However, the media may become interested in topics and events that STUK has not defined as requiring preparedness. Furthermore, in the current operating environment of the media, communication takes place immediately and around the clock. STUK must be prepared to communicate also outside the office hours both under normal conditions and during events in which it cannot be determined immediately whether preparedness is required or not.

STUK's communication instructions valid at the time of the incident were 17 years old and some parts of the instructions contradicted one another. The communication instructions are currently being updated and, in practice, STUK has already made the transition, for example, to start using the social media. In order to improve communications at STUK, the Safety Investigation Authority recommends that:

STUK establishes communication procedures that guarantee functional communications during situations that require full, basic and enhanced preparedness, which are of interest to the media and the public. The internal instructions for communications must be updated and harmonised. STUK must also ensure preparedness for carrying out communications in both official languages of Finland (Finnish and Swedish) and in English also outside of office hours. [2017-S13]