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Title

Radiological impact assessment as basis for a review of protection strategies in Germany

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Text

The implementation of the EU Basic Safety Standards triggered a new radiological impact assessment for nuclear and radiological events in Germany. Nine different categories of events were considered in this assessment, including e.g. domestic NPP accidents, NPP accidents in foreign countries, accidents in nuclear facilities, transport accidents, terroristic acts involving radioactive substances, satellite crashes. The radiological impact was assessed for a set of exemplary radioactive releases in each category, taking into account of several thousands of realistic weather scenarios in total. The decision support system RODOS was used for the

assessment. The impact was assessed in terms of e.g. radionuclide contamination of the environment, exposure of the public, affected areas and persons. Furthermore, the response of various radiological monitoring systems (e.g. the gamma dose rate monitoring network) was investigated. The results of the assessment finally allowed for a review of protection strategies for nuclear and radiological events in Germany.