



Swedish Government, Ministry of the Environment and Energy

103 33 Stockholm

Statement of SSM's views

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Statement of the Swedish Radiation Safety Authority concerning RD&D Programme 2016

Statement of the Swedish Radiation Safety Authority

The Swedish Nuclear Fuel and Waste Management Company (SKB) has submitted the RD&D Programme 2016 to the Swedish Radiation Safety Authority (SSM) for review and evaluation under Section 12 of the Act on Nuclear Activities (1984:3).

SSM suggests that the Government issue a decision stating that the licensees of nuclear power reactors have, through SKB's presentation, performed their obligations under Section 12 of the Act on Nuclear Activities.

Moreover, SSM suggests that the Government urge the reactor licensees and SKB to take into account the collected assessments and points of view presented in the Authority's review report.

The matter in hand

SKB has been commissioned by the licensees of nuclear power reactors to prepare the programme for research, development and demonstration (the RD&D programme) which, in accordance with Section 12 of the Act on Nuclear Activities, must be submitted to the Authority every third year for review and evaluation. SKB submitted the RD&D Programme 2016 on 29 September 2016, in accordance with Section 25 of the Ordinance on Nuclear Activities (1984:14).

SSM has reviewed and evaluated the RD&D Programme 2016 in accordance with the criteria stated in Section 26 of the Ordinance on Nuclear Activities. The present statement of SSM's views and the accompanying review report (Appendix 1) provide a summary account of the outcome of this review and evaluation.

SSM has distributed the RD&D Programme 2016 to a broad range of referral bodies comprising approximately 70 organisations for their comments. At the end of this period of consultation, by 31 December 2016, 35 of these organisations had provided responses, of which 14 communicated that they refrained from commenting. An additional two referral bodies submitted viewpoints after the deadline for responses. A compilation of general comments communicated by the referral bodies is presented in the review report, together with the Authority's overall points of view on the RD&D Programme 2016. The more detailed viewpoints of the referral bodies are presented in connection with the review report's various sections discussing the review. A separate compilation of the responses from referral bodies is included in Appendix 2.



In its decision concerning the RD&D Programme 2013, the Government imposed the condition that SKB and the reactor licensees must, prior to reporting on subsequent RD&D programmes, continue to consult with SSM on matters relating to development of decommissioning plans and dismantling studies. In addition, the Government imposed the condition that SKB should ensure improved clarity and structure in future RD&D programmes, as well as clarifying how research and development activities are planned, justified and evaluated for the purpose of meeting the requirements imposed by Sections 10 and 11 of the Act on Nuclear Activities.

The consultations that were carried out in preparation for submission of the RD&D Programme 2016 dealt with not only the accounts of plans and strategies provided by the reactor licensees regarding decommissioning and dismantling of the nuclear power plants and Ågesta district heating plant, but also SKB's planned measures to clarify the programme and more clearly present how research and development activities are planned, justified and evaluated.

SSM's advisory committee for matters relating to radioactive waste and spent nuclear fuel considered the main elements of SSM's review of the RD&D Programme 2016 at its meeting on 2 February 2016.

Grounds for the decision

Compliance with Section 12 of the Act on Nuclear Activities

Under Section 12 of the Act on Nuclear Activities, a party licensed to own or operate a nuclear power reactor must, in consultation with the other licensees of nuclear power reactors, prepare, or arrange to have prepared, a programme for the comprehensive research and development work, in addition to other measures that are needed for safe management of nuclear waste and spent nuclear fuel, as well as safe decommissioning and dismantling of nuclear facilities.

SKB has been commissioned by the reactor licensees to draw up the RD&D programme and has submitted it to the Authority in accordance with Section 25 of the Ordinance on Nuclear Activities.

In accordance with Section 26 of the Ordinance on Nuclear Activities, SSM has performed a review and an evaluation of this programme in the following areas:

1. planned research and development work,
2. reported research findings,
3. alternative options for management and storage, and
4. the measures intended to be taken.

The Authority has produced a review report encompassing detailed assessments of the information presented in the RD&D Programme 2016. The detailed assessments pertaining to items 1 and 2 above are covered in Chapters 4 to 8 in the review report. SSM's overall points of view on alternative options for management, handling and storage are presented in section 3.8, with detailed commentary presented in Chapter 11. SSM's overall points of view regarding the measures planned to be taken are presented in the respective sections of the review report.

The Authority's review has taken into consideration not only SKB's applications to SSM and the Land and Environment Court concerning a repository system for spent nuclear fuel, submitted in March 2011, but also SKB's applications submitted in December 2014



to SSM and the Land and Environment Court for permission to expand the repository for short-lived radioactive waste (SFR). In its review of the RD&D Programme 2016, SSM does not forestall the results of assessments in matters that are the subject of SSM's review and processing of these applications in preparation for future Government decisions.

In the assessment of SSM, SKB and the reactor licensees have met the conditions imposed by the Swedish Government in connection with decisions concerning the RD&D Programme 2013 (ref. nos. M2014/930/Ke, M2014/1495/Ke) regarding their need to consult with SSM in matters relating to development of decommissioning plans and dismantling studies, and the need for SKB to ensure that subsequent RD&D programmes have improved clarity and improved structure, as well as clearly present the approach to planning, justification and evaluation of research and development activities for the purpose of meeting the requirements imposed by Sections 10 and 11 of the Act on Nuclear Activities.

SSM's overall assessment is that the reported research and development work is sufficiently comprehensive, and that the planned measures for safe management of nuclear waste and spent nuclear fuel, in addition to safe decommissioning and dismantling of nuclear facilities, are sufficient to meet the requirements of Sections 10 and 11 of the Act on Nuclear Activities. Consequently, SSM is of the view that the licensees of nuclear power reactors comply with Section 12 of the Act on Nuclear Activities.

SSM considers that the reactor licensees' and SKB's reporting on the RD&D Programme 2016 demonstrates progress in their work towards meeting their obligations to develop and implement solutions to enable compliance with requirements imposed for safety and radiation protection regarding decommissioning work and final management of all spent nuclear fuel and nuclear waste in the Swedish system. At the same time, however, SSM notes that there is still a need over the long term for research and development within the areas of management and final disposal of residual products from nuclear power generation, as well as decommissioning and dismantling of nuclear power plants.

Other comments

In the assessment of SSM, SKB's presentation conveys an effective overview and gives an understanding of SKB's and the reactor owners' overall planning as a basis for the Authority's assessments of the RD&D Programme.

SSM is thus of the view that the changed structure of the RD&D Programme 2016 compared with the previous RD&D programme, together with the additional material accounting for SKB's management and control of the work activities, have contributed to clarifying how research and development activities are planned, justified and evaluated.

SSM notes that an account of the programme for development and establishment of a repository for long-lived waste (SFL) is delayed. SKB stated in the previous RD&D programme that a safety evaluation of SKB's conceptual design for SFL was to be completed in 2016 and reported on in the RD&D Programme 2016. SKB's revised plans imply that the safety evaluation will be finalised during 2018 and thus accounted for no earlier than in the RD&D Programme 2019.

Against the background of the value that SKB attributes to the outcome of this safety evaluation, SSM wishes to clearly emphasize the importance that the outcome from the evaluation is of sufficient scope, level of detail and quality in order to underpin guiding decisions on the orientation of ongoing activities. Consequently, in preparation for future presentations of RD&D programmes in addition to the licence application, SSM intends to



closely monitor SKB's continuing efforts on refining conceptual designs for, and the siting of, a repository for long-lived waste.

This matter has been decided by Director General Mats Persson. Analyst Bengt Hedberg was rapporteur. Final administration of this matter has also involved the participation of department director Johan Anderberg, head of section Ansi Gerhardsson, and senior legal adviser Pernilla Sandgren.

SWEDISH RADIATION SAFETY AUTHORITY

Mats Persson

Bengt Hedberg

Appendices

1. SSM's review report
2. Compilation of consultation responses
3. RD&D Programme 2016

Copies distributed for information only

Swedish Nuclear Fuel and Waste Management Company (SKB)
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OKG AB
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