Audit of the monitoring of nuclear power plant decommissioning

Swiss Federal Nuclear Safety Inspectorate, decommissioning fund for nuclear facilities and disposal fund for nuclear power plants

Key facts

Until 2019, there were five nuclear power plants operating in Switzerland. In the same year, Mühleberg became the first of them to cease generation activities for economic reasons. The Swiss Federal Nuclear Safety Inspectorate (ENSI) monitors nuclear power plants in terms of technical aspects, until the plants no longer present a radiation risk. To finance the decommissioning of the power plants and the waste disposal costs, the Confederation set up two independent funds under public law, in 1984 and 2000 respectively. These are run by the decommissioning fund for nuclear facilities and disposal fund for nuclear power plants (STENFO). The funds are financed by, firstly, contributions from the plant operators and, secondly, long-term returns on fund assets. Owing to the decommissioning of Mühleberg and the preparations for the decommissioning of Beznau, STENFO already made initial decommissioning payments to both operators in 2019.

Starting with the Mühleberg decommissioning, the Swiss Federal Audit Office (SFAO) conducted its first audit of the payout process from the STENFO decommissioning fund and the flow of information on decommissioning activities between STENFO and ENSI. In addition, the SFAO also examined in depth whether the recommendations from international peer reviews – regular exercises in which ENSI's activities are evaluated – flow into the ongoing process to improve ENSI's supervision.

STENFO's payout process is effective, but there is room for improvement

STENFO currently has no long-term experience with paying out fund assets. It works with three instruments, which were only engaged fully for the first time in 2020. Based on the cost study, STENFO defines the credit framework for payouts for the subsequent five assessment periods. Each year, the operators draw up a cost schedule showing the planned decommissioning and waste disposal costs for the following year; it forms the basis for STENFO's payments on account. The operators submit a quarterly short report containing the most important information. At the end of the year, the operators prepare a year-end account statement, which STENFO uses to pay out the difference after deduction of the payments on account. STENFO employs an external project overseer for quality assurance purposes. In addition, the year-end account statement is checked and commented on by the operator's internal auditors. ENSI prepares an annual progress report. STENFO would have access to the operator's documents, but has so far not availed itself very much.

The first use of the process described shows that STENFO has chosen a well-functioning monitoring tool. However, there is potential for improvement and more precision, for which reason the SFAO recommends that the effectiveness of the monitoring process be periodically reviewed and any improvements be implemented. In particular, the SFAO sees potential for optimisation in risk assessment and cost projections, and in the transparency of the final cost projection.

Need for action on the cooperation between STENFO and ENSI

As the nuclear supervisory authority, ENSI must be able to act independently, in accordance with the law. However, in order to ensure a consistently high quality level, ENSI is legally obliged to take part in periodic international peer reviews in addition to engaging in certified quality management. ENSI implements the recommendations and suggestions from these reviews comprehensively and in a targeted way.

There is a need for action as regards the coordination of technical and financial supervision. In the current environment, ENSI merely checks the operators' annual progress reports for correctness. No further exchange takes place between STENFO and ENSI. As a result, there is a risk that ENSI will not become aware of major financial and timetable discrepancies in decommissioning early enough.

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