

Critical infrastructure protection audit – Supervision of water retaining facilities

Swiss Federal Office of Energy

Key facts

There are risks associated with the operation of water retaining facilities. In Switzerland, a sound legal framework ensures the regulation and supervision of water retaining facilities and the clear allocation of responsibilities. The Federal Department of the Environment, Transport, Energy and Communications (DETEC) is responsible for ensuring that water retaining facilities achieve an accepted level of safety. DETEC delegated the operational technical safety supervision to the Swiss Federal Office of Energy (SFOE). Specifically, this task is performed by the Supervision of Dams Section, which is part of the Supervision and Safety Division.

Operators of water retaining facilities are responsible for the safety of their facilities, in accordance with the Water Retaining Facilities Act (WRFA) and the Water Retaining Facilities Ordinance (WRFO). The Dams Section is responsible for the direct supervision of 215 large water retaining facilities and the overall supervision of 182 small facilities that are under cantonal supervision.

The Swiss Federal Audit Office (SFAO) audited the extent to which the Dams Section adequately performs direct supervision and overall supervision of water retaining facilities. On the whole, the audit showed a positive picture. The SFAO sees room for improvement with regard to the development and introduction of a safety management system.

Direct supervisory activities are carried out according to specifications, but there is no integration into an institutional safety management system

With regard to the safety concept of the Dams Section and the direct supervision of the 215 large facilities, the audit provided a good picture. The section's safety concept is based on national legislation and its structure, instruments and levels are based on international recommendations for the supervision of water retaining facilities. The statutory instruments and required levels of supervision are applied and there is no evidence that supervisory services are not being provided.

The section's safety concept is not integrated into a basic framework as part of a safety management system at the SFOE or Supervision and Safety Division levels. There is no planning and reporting system covering all hierarchical levels of supervision, which makes it difficult to track the progress of work, the results of inspections, quality assurance and resource management. The SFAO recommends introducing such a basic framework at the Supervision and Safety Division level and including the technical specialists from the Dams Section.

Regulatory activities and overall supervision are being performed, but despite progress, the overall supervision should be conceptually challenged

The other key supervisory activities – overall supervision and regulation – are performed by the Dams Section, in some cases with considerable time and effort. However, the definition of a quality assurance obligation in a safety management system is lacking, particularly in the context of regulation, which is the basis for supervision. The same is true of a strategy and management system for basic research. The latter is particularly important for the prompt revision of directives so that they reflect the latest scientific and technical developments.

For several years now, the Dams Section has been specifically requesting the legally required data from the cantonal supervisory authorities. The effectiveness of the overall supervision can only be assessed to a limited extent due to the lack of a defined objective. This should be integrated into a new basic framework as part of a safety management system.

Original text in German