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# Federal Act on Water Retaining Facilities (Water Retaining Facilities Act, WRFA)

of 1 October 2010 (Status as of 1 January 2013)

The Federal Assembly of the Swiss Confederation, on the basis of Article 76, paragraph 3 of the Federal Constitution<sup>1</sup>, and having considered the Federal Council Dispatch dated 9 June 2006<sup>2</sup>, decrees:

# **Chapter 1: General Provisions**

# Art. 1 Purpose

This Act regulates the safety of water retaining facilities and liability for damage caused by the release of water from water retaining facilities.

#### Art. 2 Scope

- <sup>1</sup> This Act applies to water retaining facilities which meet the following specifications:
  - a. the storage height above the low-water level of the reservoir or above ground level is at least 10 metres;
  - b. the storage height is at least 5 metres and the reservoir has a storage capacity of more than 50,000 cubic metres.
- <sup>2</sup> The federal supervisory authority (Art. 22) may:
  - a. declare water retaining facilities that are smaller than specified above to be subject to this Act if they have a particular risk potential;
  - exclude water retaining facilities from the scope of this Act if it is demonstrated that they do not have a particular risk potential.

AS 2012 5985

- 1 SR 101
- <sup>2</sup> BBl **2006** 6037

#### Art. 3 Definitions

<sup>1</sup> Water retaining facilities are installations designed to dam or store water or mud. They are also structures intended to retain sediment, ice and snow or for the temporary retention of water (retention basins).

- <sup>2</sup> Large water retaining facilities are installations:
  - a. with a storage height of at least 25 metres;
  - b. with a storage height of more than 15 metres and a storage capacity of more than 50,000 cubic metres;
  - c. with a storage height of more than 10 metres and a storage capacity of more than 100.000 cubic metres:
  - d. with a storage capacity of more than 500,000 cubic metres.

# Art. 4 Water retaining facilities on bodies of water bordering neighbouring countries

- <sup>1</sup> For water retaining facilities on bodies of water bordering neighbouring countries, the Federal Council may stipulate special provisions or agree special provisions with the neighbouring countries.
- <sup>2</sup> For this purpose, the Federal Council may deviate from the provisions on the applicable legislation and place of jurisdiction specified in federal legislation or international treaties.

## **Chapter 2: Safety of Water Retaining Facilities**

# **Section 1: Construction and Operation**

#### Art. 5 Basic principles

- <sup>1</sup> Water retaining facilities must be designed, constructed and operated in accordance with the state of the art in science and technology so that their safety is guaranteed for all foreseeable operating and loading cases.
- <sup>2</sup> For the purpose of specifying measures, special attention must be paid as far as possible to the economically viable utilisation of hydropower. Measures are specified by the supervisory authority in consultation with the owner of the facility and, insofar as the measures concerned are of a structural nature and no agreement can be reached with the owner of the facility, following consultation with recognised specialists in the engineering and energy industries.
- <sup>3</sup> It must be possible to empty the reservoir in order to carry out inspections and maintenance operations and it must be possible to lower the level of water therein if there is any imminent threat. For this purpose, water retaining facilities must at least be equipped with a bottom outlet of adequate dimensions, or with bottom sluice gates of adequate dimensions. The Federal Council may permit exceptions for special categories of water retaining facilities.

<sup>4</sup> It must be possible to divert floods safely when the reservoir is filled to its maximum capacity.

# **Art. 6** Planning approval and construction

- <sup>1</sup> Any person wishing to construct or modify water retaining facilities requires planning approval from the relevant licensing authority.
- <sup>2</sup> Where the construction or modification of an installation has to be approved on the basis of other legal provisions, at the same time as the decision on approval in accordance with those legal provisions a decision shall be made on whether to grant planning approval under this Act.
- <sup>3</sup> Planning approval must be granted if the technical safety requirements are complied with.
- <sup>4</sup> The application for planning approval must include all the information required to carry out the technical safety assessment.
- <sup>5</sup> The supervisory authority examines the application. If the supervisory authority is not the licensing authority, it shall inform the latter of the result of its technical safety assessment. If deemed necessary for ensuring the technical safety of the installation, the supervisory authority shall specify conditions concerning its construction.
- <sup>6</sup> When making its decision, the licensing authority considers the result of the technical safety assessment and the requested conditions for ensuring the technical safety of the installation.
- <sup>7</sup> The licensing authority shall order special structural measures if these are required to protect the installation against acts of sabotage.
- <sup>8</sup> During the construction phase, the supervisory authority shall verify whether the specified technical safety requirements are complied with.

#### **Art. 7** Commissioning

- <sup>1</sup> In order for a water retaining facility to be commissioned or recommissioned, a licence must be obtained from the supervisory authority.
- <sup>2</sup> Applications for a licence must include all the information required to carry out a technical safety assessment.
- <sup>3</sup> The supervisory authority examines the information provided by the applicant and verifies whether the technical safety requirements are complied with. If deemed necessary to ensure the technical safety of the installation, the supervisory authority shall specify conditions concerning its commissioning and its operation.

#### Art. 8 Operation

- <sup>1</sup> The operator must ensure that:
  - a. the safety of the population and environment is guaranteed;
  - b. the outlet and relief works are adequate and functional.

# <sup>3</sup> The operator must:

- maintain the water retaining facility properly, repair damage and rectify safety defects without delay;
- retrofit or modify the facility if the supervisory authority requires such action in order to rectify safety defects;
- c. permit the installation and use of national monitoring and measurement systems, and grant inspection bodies access to such systems.
- <sup>4</sup> The supervisory authority shall evaluate the reports and verify whether the technical safety requirements have been complied with. It shall also carry out periodical inspections of the facility.
- <sup>5</sup> If deemed necessary for ensuring the technical safety of the facility, the supervisory authority shall specify conditions for the continued operation of the facility.
- <sup>6</sup> Water retaining facilities must be monitored and maintained until such time as they are no longer able to retain or confine water, mud and other materials. If there is no operator, the owner of the land shall be responsible for these obligations.

# Art. 9 Influence of other structures and installations on safety

Before an authority may decide on the construction or modification of a structure or installation which could have a negative impact on the safety of an existing water retaining facility, it shall consult the supervisory authority.

# **Section 2:** Emergency Concept

# **Art. 10** Precautionary measures in the event of an emergency

- <sup>1</sup> The operator shall take precautions for the event that the safe operation of the water retaining facility can no longer be guaranteed as the result of behaviour anomalies, natural events or acts of sabotage.
- <sup>2</sup> In the event of an emergency, it must take all necessary measures to avoid endangering persons, property and the environment.

## **Art. 11** Water-alarm system

- <sup>1</sup> The operator of a water retaining facility with a storage capacity of more than 2 million cubic metres must operate and maintain a water-alarm system in the near zone.
- <sup>2</sup> The operator of a water retaining facility with a storage capacity of less than 2 million cubic metres which represents a high potential risk within its inundation

<sup>&</sup>lt;sup>2</sup> The operator shall carry out all inspections, measurements and tests that are required to assess the condition and behaviour of the water retaining facility, and shall have the results evaluated without delay. The operator shall submit all corresponding reports to the supervisory authority.

zone must operate and maintain a water-alarm system in the near zone insofar as he is ordered to do so by the supervisory authority.

<sup>3</sup> The term "near zone" refers to the area that would be flooded within two hours following a sudden total collapse of the facility.

## **Art. 12** Protection of the population in the event of an emergency

- <sup>1</sup> In the event of an emergency, with the aid of the available civil protection instruments and structures, the federal government, cantons and communes are responsible for distributing instructions to the population concerning the behaviour they should adopt and, if necessary, for their evacuation.
- <sup>2</sup> In the event of a military threat, the authority designated by the Federal Council may issue special instructions.

## Chapter 3: Liability

# **Art. 13** Exemption from the scope of application of this Act

The provisions of this Chapter do not apply to water retaining facilities that serve the sole purpose of protecting against natural hazards.

### **Art. 14** Liability on the part of operators

- <sup>1</sup> The operator of a water retaining facility is liable for damage to persons and property that is caused when risks associated with the flow of large quantities of water, mud or other materials materialise.
- <sup>2</sup> The operator is also liable for costs, with the exception of loss of income, that are incurred as the result of measures ordered by the authorities to prevent or reduce an imminent threat.
- <sup>3</sup> Liability as operator applies to any person who owns, constructs or operates a water retaining facility. If the operator is not the owner of the facility, the latter shall be held jointly and severally liable with the operator.
- <sup>4</sup> The federal government, cantons, communes or other public bodies or institutions are also liable in accordance with the provisions of this Act if they operate water retaining facilities.

## **Art. 15** Exemption from liability

If the operator of a water retaining facility proves that the damage was due to force majeure, gross negligence on the part of the injured person, sabotage, acts of terrorism or acts of war, he shall be exempted from liability.