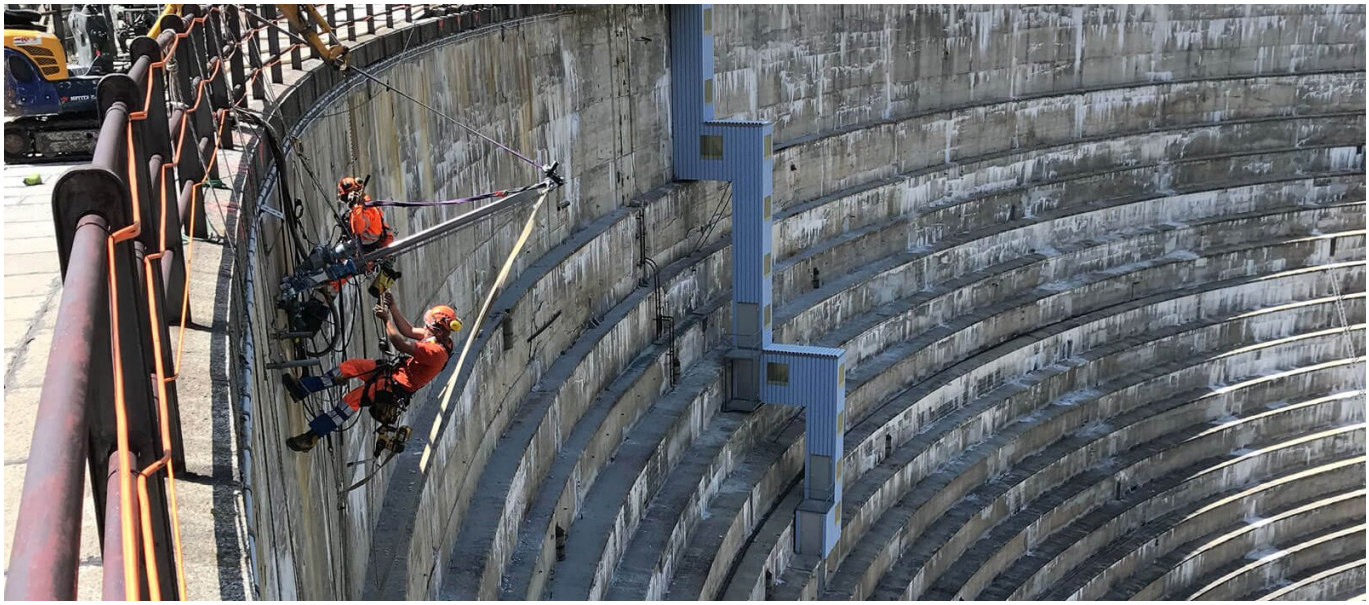
Staumauer Spitallamm – Grimsel









SHORT DESCRIPTION

The new double-curvature arch dam will be built directly in front of the existing dam. The old dam will remain in place and will be flooded at a later date.

THE PROJECT

Kraftwerke Oberhasli AG (KWO) has tasked a joint venture, consisting of Frutiger AG (project lead), Implenia and Ghelma AG Baubetriebe, with replacing the Spitallamm dam on Lake Grimsel. Implenia has a 42.5% stake in the joint venture. The volume of the contract amounts to around CHF 100 million in total.

The existing Spitallamm dam was completed in 1932. Now, almost 90 years later, it is to be replaced. The new double-curvature arch dam will be built directly in front of the existing dam. The new structure has the same crest height as the existing arch-gravity dam and offers the possibility of a height increase at a later stage in order to enlarge Lake Grimsel. The dam is 113 metres high (without enlargement of the lake). The old dam will remain in place and will be flooded at a later date, with a tunnel being used to ensure that the water level is balanced hydraulically. In addition to some further underground construction, the order also includes preparation of the material for production of the more than 223,000 m^3 of concrete. Building work began in summer 2019 and is scheduled to be completed in 2026.

Implenia is contributing its tried-and-tested expertise in the field of infrastructure and underground construction to the

joint venture. Implenia has already had the opportunity to showcase its expertise in this domain in a previous project to increase the height of the Vieux Emosson dam (in Valais, Switzerland).

SERVICES IN DETAIL

- Max. height 113 m
- Crest length 212 m
- Crest width 8 m
- Max. width of footing 20 m
- Concrete volume 223,000 m^3

CHALLENGES

The construction site for replacing the Spitallamm dam is on the road over the Grimsel Pass, at a height of between approx. 1,650 m above sea level (Gerstenegg) and 1,980 m above sea level (Grimsel Hospice).

FACTS

Location	Grimsel , Switzerland
Status	Under construction
Construction volume (value of our services)	98 M CHF
Start of construction	May 2019
Completion	October 2025
Building owner	Kraftwerke Oberhasli AG (KWO)
Project designer	Kraftwerke Oberhasli AG (KWO)
Construction management	Kraftwerke Oberhasli AG (KWO)
Construction management	Kraftwerke Oberhasli AG (KWO)

SERVICES

Civil engineering

Power plant expansion