Repair of hydroelectric power station spillways

ID: 9852

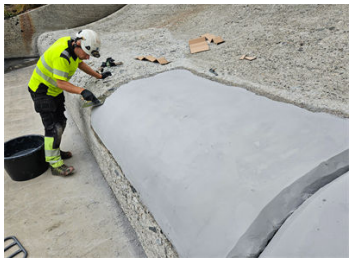
Industry:	*Power*	Customer Location:	*North of Sweden*
Application:	*FPA-Floor Problem Areas*	Application Date:	*July 2024*
Substrate:	*Concrete*		
Products:	*Belzona 4111 (Magma-Quartz),Belzona 4911 (Magma TX Conditioner)*		

Problem

The problem was porous concrete that both erodes and draws moisture at certain times of the year leading to frost cracking. This has led to some corrosion also affecting the reinforcement. So it all accelerates with each passing season

The spillway shows what it looked like before we started work

Here the surface is grit blasted, and loose parts are identified and tapped away so we have a firm and good surface to continue the repair.



Once the surface has been blown clean, apply a coat of Belzona 4911 adhesion primer with anti-corrosion properties. Then overlay the existing surface with Belzona 4111.

Here is the finished result, the edge is coated with Belzona 4111 so no more frost cracking or erosion problems

Application Situation

Considering that we were able to complete this project in two days and that Belzona 4111 has a chemical cure and is very dense, there were many benefits for the customer.

Application Method

We used blasting equipment for the blasting, then we blew the whole surface clean with a leaf blower, then we mixed Belzona 4111 with a bucket mixer. Surface preparation with classic tools used when working with concrete

Belzona Facts

The client had previously tested different variants of conventional concrete, both sprayable and hand-applied variants. The customer's experience was that these require a very long time to be commissioned and that adhesion and porosity often led to frost cracking and being back to square one a year later.