

AKOSOMBO DAM – VOLTA RIVER AUTHORITY – GHANA

The **AKOSOMBO Dam** (also referred to as the Volta Dam), is a hydroelectric dam on the Volta River in southeastern Ghana in the Akosombo gorge and part of the **Volta River Authority**.

The construction of the dam started in 1961 and was finished in 1965.

The **AKOSOMBO Dam** was called "the largest single investment in the economic development plans of Ghana."



Its original electrical output was 912 MW, which was upgraded to 1,020 MW in a retrofit project that was completed in 2006.



Above: the six penstocks (before **ZINGA** application)
Right: 450 ton crane.



In 2009 talks started about recoating the exterior of 6 penstocks and cranes (450T ; 85T and mobile hoist cranes) that are part of the Akosombo Hydroelectric Project. In 2012 the application on 10,000m² with the **Zingametall coatings** started following their approval in 2010.



February 2012: one penstock coated with **ZINGA**, the second penstock scaffolded.



April 2012: one penstock finished with **ZINGACERAM PU**, the second penstock protected with **ZINGA**



November 2012: three penstocks finished with **ZINGACERAM PU**, the fourth penstock scaffolded.



March 2013: four penstocks finished with **ZINGACERAM PU**.



April 2013: five penstocks finished with **ZINGACERAM PU**.



End of June 2013: All six penstocks finished with **ZINGACERAM PU**.

ZINGA Ghana was the project coordinator of the maintenance works and **Witson Mechanical Company** was the contractor responsible for the surface preparation and coating application.

System:

ZINGA	1 x 60 µm DFT
ZINGACERAM HS	1 x 80 µm DFT
ZINGACERAM PU	1 x 100 µm DFT



In 2020, **8 years after application**, a visit with a **ZINGA** representative was organized to inspect the state of both the penstocks and the crane at the **AKOSOMBO** Dam. The **ZINGA** system on both structures was in perfect condition and in excellent state.



The color difference on the penstocks is due to a layer of dust on the surface.

The dark spots on the 450 Ton crane legs are webs of local spiders.