



Cooling water canal at the TPU litoral of Almería

Almería, Spain / 2019

Owner
Client
Scope

ENDESA GENERACIÓN, S.A.
ENDESA GENERACIÓN, S.A.
diagnosis and intervention start up



On March 2019, ENDESA GENERACIÓN, S.A. hired FHECOR Ingenieros Consultores within the framework of its maintenance policy, to elaborate the inspection works and subsequent tasks of the cooling water canal at the 'Litoral de Almería' Thermal Production Unit, in Carboneras.

The aforementioned structure is a canal whose length overtakes 500 m. FHECOR technicians inspected the buried section, where the canal is divided in two ducts. The inspected surface reached the 2700 m².

In order to enter to the canal's interior a maintenance stop which lasted only 4 hours was taken into advantage. Thus, the challenge was to optimize the visual inspection works, non-destructive in situ tests and extraction of concrete samples within such a short period of time. In addition, because of the structure's features, works at height and in confined spaces were required. Furthermore, a rescue team support was necessary during the whole procedure.

Later tasks consisted of tests results interpretation, diagnosis, structural verification, estimation of the life span, and developing the required procedures.

The project consists in the main foundations design, including Tekla® 3D model regarding formwork as well as the embedded elements and steel structure.

Calculation of main foundation, including dynamic checkings by a solid elements model on SAP2000® with frequency analysis as well as transient dynamic analysis.



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