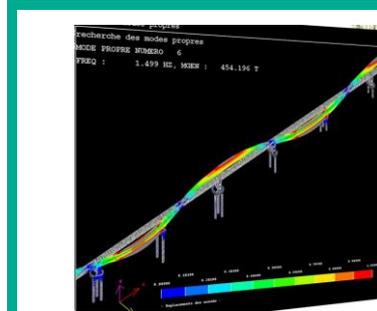


Planning and monitoring of repair and reinforcement works

Footbridge from the PL1 to the crossing of la Durance



Client:

SPSE
BP 14, Route d'Arles
13771 Fos-sur-Mer Cedex

Project manager:

DIADES

Contractor:

Freyssinet

Years:

Planning: 2010 - 2011
Works: 2011 - 2012

Principal features:

260-metre long prestressed concrete structure

Background

The South European Pipeline (SPSE) owns an oil pipeline that crosses the floodplain of the Durance river, south of Avignon, connects to a conduit that serves the Nord-East of France and West Germany from Fos-sur-Mer (Bouches du Rhône – 13).

The oil pipeline was built in 1962, and was in use until the mid 1980s.

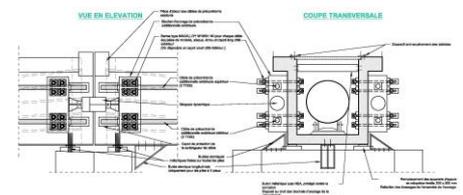
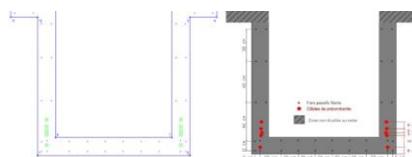
To enable the pipeline to be used again, SPSE wanted the structure to be comply with seismic regulations.

SPSE instructed DIADES to, firstly, carry out the complete diagnosis of the pipeline with LERM (part of the Setec group) and, secondly, structurally reinforce the pipeline in order to ensure its durability and enable it to withstand seismic impulses.

DIADES' task

DIADES carried out the project management, which included the following phases:

- Static and dynamic study of the structure's load-bearing capacity,
- Pre-project design setting out the investigations necessary to perfect the technical solution,
- Project involving the reinforcement of the structure to enable it to withstand possible seismic impulses and to prolong its life expectancy,
- Preparation of the tender documents and assistance with the award of contracts,
- Preparing the specifications for outside inspections necessary to the proper execution of the works,
- Project management of the reinforcement works: project conformity assessment and approval of plans (VISA), supervision of works (DET), instructing, managing and coordinating the contractors (OPC) and approval of works on completion (AOR).



Static and seismic reinforcement of a prestressed concrete structure

Reinforcing the decks and piers to enable the structure to withstand seismic impulses without reinforcing the foundations.

Designing the reinforcement in such a way as to increase the life expectancy of the structure and improving the geometry of the additional exterior prestressing to compensate for any possible future defects in the interior prestressing of the concrete.

diadès

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