

## Study Committee B1

Insulated cables

10881\_2022

### Decommissioning of a self-contained fluid-filled cable: operating method and risks mitigation

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#### Motivation

- Whether for environmental or technical reasons the decommissioning of industrial sites requires the restoration of the concerned area, so the industrial installation shall therefore be completely including underground cables.
- The removal operation must therefore be carried out in such a way as to avoid any risk for people, the environment and other installations.

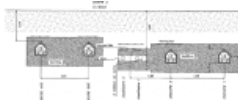
#### Description of cable installation

- 4 underground links of Self-Contained Fluid-Filled (SCFF) cables,
- 820mm<sup>2</sup> and 800mm<sup>2</sup> Cu
- 23 kg / m. The length of
- 800m = 9.6 km of cable

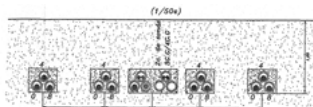


#### Laying Methods

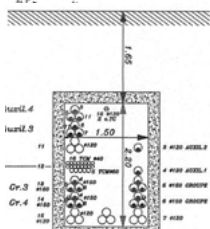
- Every cable was installed in three different laying methods.
- Buried and filled troughs.



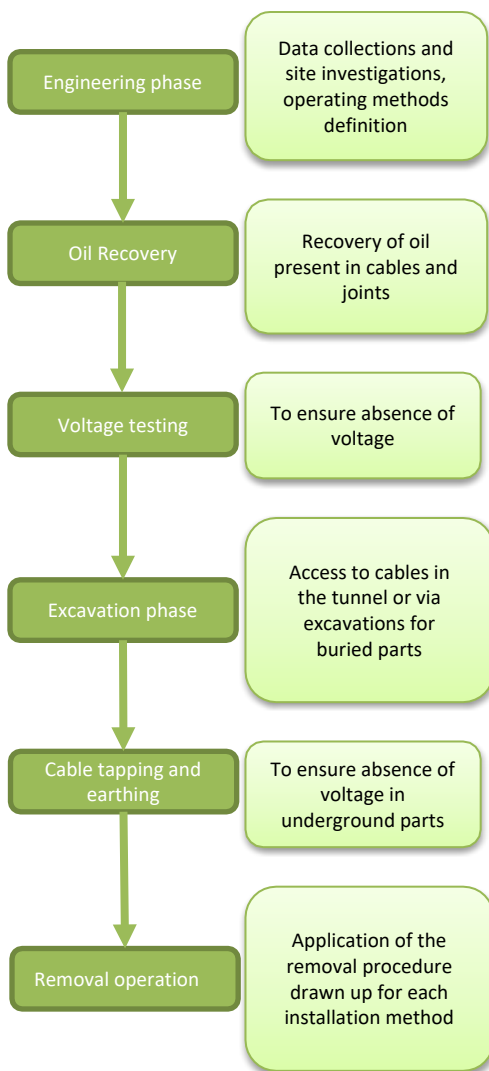
- Ducts.



- Tunnel.



#### Project Phases



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#### Excavation

- Excavation every 40m was necessary for cables in buried troughs.



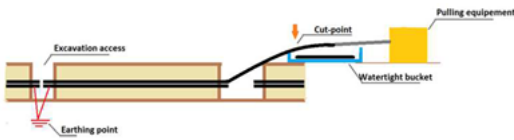
#### Oil Recovery

- 1800 litres of oil was recovered from the central hole in the cables.

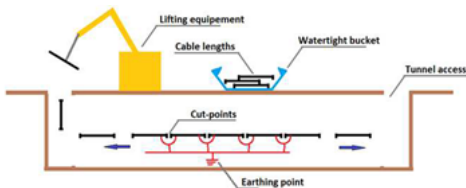


#### Removal methods

- For cables in troughs and ducts



- for cables in the tunnel



#### Voltage testing and grounding

- Excavation every 40m was necessary for cables in buried troughs.



#### Risk mitigation

Electrical risk

Mechanical risks

Induction

lifting, earthmoving,  
cutting

health risk

Pollution risks

Asbestos

Oil, Lead

#### The project feedback

- The technologies and condition of the cables and the accessories.
- All available information about other underground installations located nearby.
- The laying method used at each point of the cable route which has a high impact on the feasibility of the project.
- The preparation of the project shall be done with other utilities that interface with the cable route.
- The feedback of other similar projects