

Deliverable B 3-2

Technical Report of the pilot plant operation (design, operation, productivity etc.) - FINAL

The Start Up and Commissioning phases of a new plant and equipment present both a major technical and a management challenge. An organization's personnel must familiarize themselves with new equipment, processes and technologies, develop the relevant operating and safety procedures.

Processing plant commissioning embraces activities such as cleaning, flushing, verifications, leak tests, performance evaluation and functional tests essential for bringing a newly installed plant or facility into routine operation.

Correct commissioning is vital to the satisfactory operation of any plant or facility and it is essential that sufficient time and resources be allocated to different stages of the commissioning and startup.

Special efforts are needed to ensure safety and reliability at commissioning. Since commissioning, startup and shutdown activities have been responsible for many accidents, failures and other issues, these activities merit special attention.

This deliverable is a technical report containing methods followed by MOH on commissioning, including pre-commissioning, core commissioning, startup, post-commissioning and operation of the pilot plant in MOH facilities in the context of LIFE DIANA. Difficulties and challenges faced during commissioning, startup and operation of the pilot plant are described in this deliverable, as well.

In this context, this deliverable contains information regarding the installation and the operation phase of the pilot plant which is located within the refinery area in Agioi Theodori, in Corinth. In particular, the top view of the plant as well as the P&ID have been defined and provided.

Moreover, the process flowsheet is presented where it is obvious that the scale-up stabilization process includes an initial mixing of the hazardous refinery sludge with the stabilizing mineral, followed by the main core of the process in which the produced pollutants are immobilized and restrained. The relative process flow and pilot unit specifications including human job positions have been determined accordingly.

This is the final technical report of pilot 1 which includes all the technical details throughout the pilot operation.