



Full worldwide EPC capability from a single source

Project

Enerflex was hired to equip an operational natural gas processing facility with a CO₂ removal unit capable of processing 235 mmscf/d of natural gas utilizing an MDEA amine process. The CO₂ removal unit was needed to increase the facility's gas production capacity in order to fulfill supply contracts with major industrial consumers in Western Australia.

The major units consisted of inlet flow distribution and filtration, two identical three-level processing trains (each providing 50 percent of the facility's capacity), heat-medium circulation and a piperack with interconnecting piping to the battery limits. This project was made more challenging by an aggressive delivery schedule and site constraints. The facility's lease area was very small and located on Varanus Island within an environmentally protected area. Enerflex had to follow special procedures to avoid disturbing the island's wildlife and turtle nesting grounds.

Location

Varanus Island, Western Australia

Result

Enerflex's single-source capability brought together the equipment and in-house expertise to complete the project from design to start-up. Enerflex began by designing the CO₂ removal unit's site plan to conserve lease space. We followed through by fabricating the processing equipment modules in Canada, procuring major loose-shipped equipment (i.e. heat exchangers, coolers and towers) from local suppliers, and arranging the delivery of equipment and people to the site in accordance with environmental regulations. Our in-house engineers and trades people handled all aspects of construction, including civil, mechanical and structural engineering plus foundation and piping installation under hotwork permit conditions at an operational gas processing facility. We also provided start-up support and operator training.

Enerflex drew upon its design and logistics experience to execute the project on budget and shorten the original project schedule by six weeks. We arranged transportation of the Train 1 processing-equipment modules to Australia from Canada using a Russian Antonov transport plane – saving the six to eight weeks typically needed to ship equipment across the Pacific Ocean.