CABLE STATION FACILITIES – Southern Europe

Client: TyCom Global Network

Value: £100m

Description:

Cable Stations form the shore-based link to undersea fibre optic cables connecting major cities around the world. Earth Tech were appointed to participate in the design of eight stations around the Mediterranean, the cable stations and related facilities will serve as the backbone of a fiber optic network that provides high-speed telecommunications services throughout the world.. The work involves site selection, multi-disciplinary design, M&E procurement, project and contract management. The facilities require extensive HVAC control and are all to be completed within a very short design and construction period.

Earth Tech provided turnkey siting, permitting, design, and construction services for 11 telecommunications buildings and outside plant (OSP) facilities in Northern Germany, United Kingdom, Mediterranean, and Florida as part of Phase 1 of the Tyco Global Network (TGN). The TGN system will ultimately span 250,000 undersea kilometers and link terrestrial networks on six continents.

Earth Tech assembled an international team of 40 designers and technical professionals from the USA, UK, and Canada to complete the conceptual design. A team of permit professionals worked with local partners to ensure all local, regional, and national permits were obtained to support the facility construction schedule. Work was being conducted simultaneously at sites in Spain, Portugal, Italy, France, Greece, and Israel, requiring compliance with a broad range of government regulations; conformance with diverse ordinances, building codes, zoning standards, and permits; and a multitude of languages and dialects. Earth Tech developed alliances with local A/E firms and general contractors.

Earth Tech completed the design and construction of three cable stations, one terminal repeater station, and two telehouses located in Spain and Portugal. Earth Tech completed the design and over 50 percent of the construction for two cable stations, one terminal repeater station and two telehouses in Italy, Greece, and France.

All facilities were equipped with:

- Precision-controlled environmental systems to protect sensitive telecommunications equipment
- Redundant mechanical and electrical systems without single failure points
- Computer-controlled building management systems (BMS) with remote terminal access for monitoring and control of building systems
- Electrical systems featuring uninterrupted power supply (UPS) and backup generators
- State-of-the-art fire detection and fire suppression systems with Inergen Gas and pre-action systems
- Security systems featuring controlled access, surveillance, and detection

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