

Technodyne International Ltd. is an engineering design company within the TGE/CIMC Group, specialising in the basic and detailed design of cryogenic storage tanks for hydrocarbon products for a worldwide network of clients in the oil and gas industry.

For the further expansion of our international team in our office in München, Germany, we are seeking with immediate effect:

### **Senior Structural Design Engineer (m/f/d)**

#### **Purpose of the position:**

Experienced Civil Engineer for performing and be responsible for basic and detailed structural design and engineering of concrete structures for tankage and plant projects.

#### **Main activities and responsibilities:**

- Support for FEED/Bids package and provide MTOs/ABOMs and General Arrangement data for refrigerated liquid gas
- (RLG) storage tanks
- Sizing of structural concrete elements, especially for concrete tanks
- Assist project managers / engineers with project scheduling and setting deadlines
- Evaluate geotechnical, Seismic Hazard Assessment, and Quantitative Risk Analysis reports
- Interpretation of dynamic design calculations
- Execution of pre-stressing calculations (tendon elongation) incl. translation into FT detail and reinforcement drawings
- Prepare civil project specifications and review / formulate proposed construction method statements by constructors
- Perform and check design calculations for other civil structures, e.g. substations, stair tower, pipe racks, etc.
- Perform storage tank linear and non-linear FEM calculations; single load cases, symmetric and nonsymmetric load cases, liquid spill, adjacent tank/valve fire, blast, etc. Prepare and check of calculations and MTOs performed within the group
- Feed and support CAD technicians with translating design calculation results into reinforcement drawings and checking of engineering drawings. Review/Interpret soil, seismic assessment and dynamic soil structure interaction reports prepared by other parties
- Pre-design of tank foundation concept and advise on soil improvement concepts. Execution and/or interpretation of settlement calculations. Perform and/or interpret of raft and pile foundation settlement calculations considering pile group effect and liquefaction
- Perform structural design of underground structures e.g. piles, diaphragm walls under static and dynamic loading.
- Preparation of Structural Design Deliverable (write ups) for approvals i.e. design calculations, calculation notes, etc. Checking of civil engineering documents and structural design calculations prepared by subcontractors
- Provision of technical support for the construction sites
- Continuous improvement of TCS's structural design and work processes, interfaces and design standards.
- Possible duty as Technical Project Manager, site advisor/TGE representative on tankage projects

#### **Qualifications, skills, abilities:**

- Degree in Civil / Structural Engineering (Dipl. Ing; M.Sc.; B.Sc; Dipl.Ing (FH))
- Minimum of 5 years work experience in the oil & gas/construction industry in a similar position
- Profound knowledge and experience in design and execution of pre-stressed concrete, reinforced concrete structures
- Profound understanding of dynamics of structures and earthquake resistance design
- Profound knowledge in the linear and non-linear design of pre-stressed concrete structures

- Knowledge of national and international design codes and standards
- Industry knowledge in civil engineering, construction sequence and civil construction methods
- Experience in MS-Office and typical structural design software tools, preferably SOFISTIK
- High self-motivation, self-organisation ability, integrity, team spirit, assertiveness
- Leadership and communication capabilities
- Flexibility for worldwide business and mission trips
- Fluent business and technical English

We offer positions with the opportunity of promotions and career progression with comprehensive training schedules and it is our aim to always employ the best person for the position.

If you are interested in working in a dynamic international team then we look forward to receiving your application in writing by email with the reference “**Senior Structural Design Engineer (m/f/d)**”

**Required documents: Motivation letter and updated CV**

**Contact: Dawn Cabell, Technodyne International Ltd. 4<sup>th</sup> Floor, Black Horse House, Leigh Road, Eastleigh, Hants, SO50 9FH.**

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**Tel: +44 (0) 23 80629929**

**Deadline for applications: 20.08.2020**