TBM Operators (EPB)

STRABAG Inc.- Pickering, ON (Ontario, Canada)

Job Description

Job Summary:

TBM operators must be able to maintain the line and grade of the tunnel while steering the TBM, as well as fully operate the Earth Pressure Balance Machine (EPBM). Qualified candidates will be required to execute the erection of segmental tunnel lining, grouting of annular gap behind the segmental tunnel lining, mucking operations within the TBM and the extension of supply pipes and rail track.

Essential Duties and Responsibilities:

- Maintain line and grade of the tunnel, possessing extensive knowledge of TBM tunneling guidance system and ring prediction program
- Responsible for TBM operations in accordance with the manufactures guidelines. This covers all machine parameters to be used along the tunnel including:
  - Maintenance of face pressure within the bulkhead and screw conveyor
  - Ensure accuracy of specified thrust load for each ram or group of rams to avoid cracking of the segmental lining
  - Monitoring grease consumption for the bearing sealing system to seal against face pressure, hydrostatic and annular grout pressure
- Responsible for monitoring the excavated material throughout the mining cycle to minimize the risk of over breaks
- Ensure building tolerances are in compliance with applicable regulations specified in the contract during the erection of the segmental tunnel lining (including plane, lips and steps) The segments shall be carefully handled during erection and bolting without damaging the TBM gaskets.
- Implementation of the annular grouting procedure behind the secondary lining. This includes verifying and confirming the pump ability of the primary grout before the starting of the mining and the volume and pressure of grout injection through the tail skin
- Responsible for the use of Soil conditioning agents during the mining operations in approved mixes to handle the geotechnical and groundwater conditions expected along the tunnel alignment
- Supervision of Mucking operations and spoil handlings within the TBM, as well as works related to extension of supply pipes and rails
- Assist Tunnel Engineers/Superintendents regarding tunneling shift reports and daily records
- Assist mechanical team with assembly and disassembly of the TBM’s before the initial drive as well as cutting head and cutting tool inspection
• Required to familiarize themselves with the approved emergency procedures, contingency plans, communication procedures and rescue plans. Must be prepared to take charge of all emergency situations within the TBM
• Responsible for identifying and communicating any and all safety hazards

Desired Skills & Experience

Knowledge and Skills:

• TBM Operator is very knowledgeable in the mechanics (including hydraulics) within the TBM and is able to trouble-shoot any problems that may be encountered
• Familiar with Method statements/ work procedures/ break in/ break out procedures
• Team player with excellent coordination and communication skills
• Ability to read prints/plans and grade stakes

Qualifications:

• Must have a minimum of 5+ years’ experience as a soft ground TBM Operator and 2+ years’ experience as an Earth Pressure Balance Machine Operator

Company Description

STRABAG Inc. is part of the STRABAG SE (Societas Europea) Group a large European operation involved internationally in various fields of the construction industry. As one of the leading providers of construction services in Central and Eastern Europe, STRABAG SE employs over 73,500 people at more than 500 locations. Specifically, STRABAG and its group companies are involved in road construction, building construction and other construction such as bridges, railways, power plant and dams. STRABAG has extensive experience in tunneling and specialized underground engineering and project development.

The company has been selected as the design-build contractor for the Niagara Tunnel Project. The project will enable Ontario Power Generation to increase generation of renewable electricity. In addition, The Regional Municipality of York has awarded STRABAG the high profile Southeast Collector Truck Sewer Project. This project is essential for the future development and expansion of the York Region.