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Date _____



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POSITION DESCRIPTION

FLSA/Comps Status: Nonexempt/Hourly
Job Title: Driller/Shotcrete Nozzle Operator
Reports to: Project Superintendent and Project Foreman
EPA Factors: (1) Seniority (2) Merit (3) Experience

Department: MCSI
Date: 4/30/2021
Location: Grand Junction, CO/Western CO

General Purpose of Position:

Driller: Set up and operate self-propelled or truck-mounted drilling machine to bore holes at construction site.
Shotcrete Nozzle Operator: tends the hose through which wet mix concrete is pumped and then sprayed.

Essential Position Functions and Responsibilities:

Driller: Operates drilling unit to drill holes for piers and underpinning.

Shotcrete Nozzle Operator:

1. Spraying a wet concrete mixture that is conveyed through a high-pressure hose/nozzle onto a designated surface as instructed.
2. Batching, mixing, transporting, applying, finishing, testing, and cleaning-up shotcrete materials.
3. Must be familiar with the different methods of shotcrete application and the appropriate use of a method for a particular design, surface, or function.

General Job Duties:

Driller:

1. Position and stabilize machine, using jacks, and lowers drill shaft into position.
2. Move levers to start and advance drill into soil or rock formation.
3. Stops drill to add, position, and replace drill stems, burners, casings, cables and hoses.
4. Observes operation to detect binding or stoppage of drill.
5. Removes drill when specified depth has been reached.
6. Replaces broken or worn parts, using hand tools.
7. Lubricates and cleans equipment.
8. Keep electric cables and water hoses clear of machine treads or tires.
9. Observes ground surface and machine operation for indications of unsafe conditions.
10. Collects ore samples for laboratory analysis.
11. Observes type of earth formation penetrated to determine need for lowering casing into hole to seal off water and prevent cave in of soft formations.
12. Records depths from which core samples are taken or depths at which piers are driven.
13. Other recorded information. Drill logs.
14. May replace bits as they become worn, chipped or lost.
15. May operate water pump to pump water down bore hole to cool drill bit.
16. Maintain good contractual relationship w/ customer and clients.

Shotcrete Nozzle Operator:

1. Applies cement mortar or concrete to exposed earth, masonry, wood forms, steel, or other surfaces.
2. Tends hose through which concrete or cement is pumped to fill forms and crevices or to coat surfaces.
3. Moves and holds supply hose as spraying progresses, using rope sling or harness.
4. Drags screed over finished surface to cut and clean spots from surface.
5. Cuts and squares corners, using trowel.

6. Assists workers engaged in erecting and moving scaffolds and in coupling and uncoupling pipe.
7. Assists in application of reinforcement materials such as steel rods, steel mesh and/ or fibers.
8. Conduct preconstruction field trials of shotcrete production and application prior to starting production shotcreting. make field trials, and construct test panels on wood forms (if required).
9. Clean loose material, mud, rebound, and other foreign matter from all surfaces which are to receive shotcrete.
10. Submit results of shotcrete testing samples and proposed shotcrete mix design to supervisor.
11. Conduct preconstruction field trials of shotcrete production and application prior to starting the actual job.
12. Applies shotcrete mixture as approved by inspector, engineer, or supervisor at a uniform rate to insure adherence of material to the treated surface with minimum rebound and maximum density.
13. Confirms mix proportions of cement, aggregate, and admixtures to obtain the specified strengths, entrained air content, and set times specified.
14. Prepare production test panels (if required).
15. Apply shotcrete as per project specifications, designs, and procedures.
16. May assist in obtaining in-place test cores from completed work.
17. Operates and/or is familiar with boom-lifts (manlift) or similar equipment.

Position Requirements:

1. **Minimum Education and Experience:** Must be familiar with concrete pumping equipment and compressors and their operations and safety procedures; Must have working knowledge of forming, grades, and screeding; Should be familiar with basic concrete technology and the effects of all environmental conditions and any necessary precautions. Knowledge of general math.
2. **Minimum Required Skills, Ability, Licensing, Certification, Training, etc.:** Class A CDL and medical card. Shotcrete Nozzleman certification through ACI (American Concrete Institute) is preferred but not required. A documented minimum of 200 hours as a nozzleman/apprentice is required. Good public relations skills, ability to represent MCSI in positive manner.
3. **Tools, Equipment, or Machines Required to Operate:** Must own personal hand tools; must be able to operate drills, power saws and other powered equipment; Should be familiar with shotcrete equipment, technology, mix designs, and procedures.
4. **Physical Requirements:**
 - a. **General:** walk, stand, sit, type, use hands to finger, handle or feel objects or tools, reach with hands and arms, talk, listen, hear, read, see, lift, bend, climb in/out of equipment.
 - b. **Lifting:** 100 pounds + at one time, at least one time daily or as necessary, possibly several times daily.
 - c. **Exposure to Elements:** Outside elements i.e. sun, wind, dust, rain, mud, snow, ice, cold, heat, noise
 - d. **Handling of Dangerous Equipment:** grinders, saws, heavy tools, heavy equipment, vehicles, high velocity air-pressured hose, powered hand tools.
 - e. **Other Hazardous Working Conditions:** Other crews working within work area while MCSI crews are present. Working at heights and during winter conditions.
 - f. **Scheduled Work Hours:** 6:00-7 am – 3-4:00 pm, ½ hour for lunch, 10 minute break morning and afternoon, unless otherwise specified. Some Saturday and overtime work may be required.

Judgment/Decision Making: Driller occasional, Certified ACI Nozzleman continuous quality control and for shotcrete laborers.

Supervision:

1. **Position Receives Direction From:** Superintendent and project foreman. Other supervision may be received.
2. **Position Directs:** other workers assisting with drilling equipment and shotcrete.

ALL EMPLOYMENT IS AT-WILL, MEANING THAT EITHER THE EMPLOYEE OR EMPLOYER MAY TERMINATE THE EMPLOYMENT RELATIONSHIP AT ANYTIME WITH OR WITHOUT CAUSE OR PRIOR NOTICE.