Missouri Department of Transportation Job Description

Job Title: Chemical Laboratory Director

Title Code: R04727

Salary Grade: 12

Exemption Status: Exempt

Supervisory Responsibilities: Full Supervision

District/Division: Central Office – Construction and Materials

Effective Date: 10-01-2025

Replaces (Effective Date): 01-01-2025

General Summary

The chemical laboratory director plans and directs the activities of the chemical and cement testing sections of the materials laboratory and its activities with districts, divisions, and federal agencies. Responsibilities are performed under general supervision.

Minimum/Required Qualifications

- Bachelor's Degree: Chemistry
- Over nine years of experience in chemical testing procedures, including supervisory or administrative responsibilities.
- OSHA 10-Hour Certification required within 90 days.

Special Working Conditions/Job Characteristics

- Job requires occasional, statewide, and out-of-state, overnight travel.
- A postsecondary degree is the best measure to ensure candidates possess required knowledge of elemental properties (organic/inorganic), cement digestion and analysis, instrumental analysis of unknowns using inductively Coupled Plasma (ICP) Spectrophotometry or FTIR Spectroscopy, analysis of coatings using Toxic Characteristics Leaching Procedure (TCLP), use of acids and bases, dilution determinations, needed concentrations of chemicals, bench chemistry, and chemical analysis test reporting.

Examples of Work

1. Plans and directs activities of the chemical and cement testing sections of the materials laboratory; schedules and assigns work to staff, reviews progress and checks work.

2. Makes inspection trips to refineries, emulsion plants, asphalt terminals, paint plants, fly ash plants, cement plants, and construction projects; recommends adding or deleting suppliers based on their performance.

3. Reviews, develops, and assists in preparing new or modifying existing specifications on materials.

4. Serves and participates in various state and national level organizations.

5. Directs investigational testing and analysis of new or improved materials; makes recommendations based on test results and submitted data.

6. Prepares budget, recommends and approves expenditures, and maintains records for the chemical laboratory section of the central laboratory.

7. Directs preparation of accreditation inspections; supervises testing and reporting of proficiency samples.

8. Evaluates and determines test procedures, standards, and equipment; reviews test reports for conformance to testing procedures.

9. Reviews test reports and approves/rejects material for use; initiates or answers correspondence regarding the approval/rejection of materials.

10. Performs supervisory responsibilities.

11. Performs other responsibilities as required or assigned.