

Missouri Department of Transportation Job Description

Job Title: Intermediate Chemist

Title Code: R04072

Salary Grade: 8

Exemption Status: Non-Exempt

Supervisory Responsibilities: None

District/Division: Central Office – Construction and Materials

Effective Date: 08-01-2024

Replaces (Effective Date): 08-01-2023

General Summary

The intermediate chemist conducts varied and moderately complex chemical and physical tests and analyses by gravimetric, volumetric, and potentiometric methods, using specialized instruments to determine properties and ensure compliance with specifications. Responsibilities are performed under moderate supervision.

Minimum/Required Qualifications

Bachelor's Degree: Chemistry or related with a Chemistry minor.

Two years of experience in chemical testing procedures.

OSHA 10-Hour Certification required within 90 days.

Special Working Conditions/Job Characteristics

Job requires exposure to moderately adverse and undesirable environmental conditions.

Job requires moderate physical activity.

Job may require operation of vehicles to plow snow and spread ice control materials.

Examples of Work

1. Conducts quantitative and qualitative analyses of bituminous materials, cements, paints, petroleum products, metals, concrete, soils, reflective materials, wood, and other materials used in the construction and maintenance of the state highway system.
2. Performs calculations, maintains records, tracks materials, and prepares reports on all testing activities and results.

3. Demonstrates test procedures during on-site American Association of State Highway and Transportation Officials Materials Reference Laboratory and the Cement and Concrete Reference Laboratory inspections, maintains assigned Quality Systems Manual, and accurately analyzes proficiency samples as required to maintain national laboratory accreditation.
4. Calibrates, repairs, and maintains precision test equipment including pycnometers, pH meters, thermometers, and other test equipment.
5. Contacts and maintains communications with cement, fly ash, slag, power generating stations, sign and related.
6. Inspects established and new, in state and out-of-state, manufacturing facilities for cement, fly ash, and GGBFS for compliance with existing and new qualifications.
7. Provides technical support and training to department personnel.
8. Follows necessary procedures to properly handle and dispose of hazardous and carcinogenic waste generated by laboratory testing.
9. Utilizes specialized testing equipment such as infrared spectrophotometer and inductively coupled plasma spectrophotometer to conduct tests necessary to increase proficiency in equipment usage.
10. Monitors supplies and equipment for availability and requests the re-supply of chemicals and glassware as needed.
11. Performs other responsibilities as required or assigned.

The Missouri Department of Transportation promotes an equal opportunity workplace that includes reasonable accommodation of otherwise disabled applicants and employees. Please see your manager should you have any questions about this policy or these job duties.