

Job Title: CIVIL ENGINEER V - METALS AND MISCELLANEOUS PRODUCTS ENGINEER - IPR#45831

Agency : Department of Transportation

Closing Date/Time: 06/30/2022

Salary: \$6,445 - \$10,210 Monthly

Job Type: Salaried Full Time

County: Sangamon

Number of Vacancies: 1

Plan/BU: NR916 - Protech Teamsters

***This position is covered by the Revolving Door Prohibition Policy.**

This position is a union position; therefore, provisions of the relevant collective bargaining agreement/labor contract apply to the filling of this position.

All applicants who want to be considered for this position MUST apply electronically through the illinois.jobs2web.com website. State of Illinois employees should click the link near the top left to apply through the **SuccessFactors employee career portal.**

Applications submitted via email or any paper manner (mail, fax, hand delivery) will not be considered.

Agency Mission Statement

The Illinois Department of Transportation is seeking to hire a Metals and Miscellaneous Products Engineer.

The IDOT team works diligently to provide safe, cost-effective transportation for Illinois in ways that enhance quality of life, promote economic prosperity and protect our environment. We are problem solvers and leaders, constantly searching for innovations and improvements in support of our commitment to providing the best multimodal transportation system for Illinois.

Our team fosters a culture of inclusivity. We value diversity and hold ourselves to the highest ethical standards as we work together for a common purpose. Team members frequently collaborate with colleagues and others outside the department to best meet customer needs.

Employees enjoy excellent benefits, including health, vision and dental insurance; a retirement plan and deferred compensation options; state holidays and other time off; tuition reimbursement; flexible schedules; and pre-tax benefit programs. The department also offers extensive training and career advancement opportunities.

We invite qualified applicants to apply to become part of our team. We are confident that you will take pride in serving Illinois and its residents and visitors.

Job Responsibilities

This position is accountable for managing the activities of the Bureau of Materials' Metals and Technical Studies Unit which develops and evaluates policies and procedures pertaining to metals and miscellaneous products. This includes developing and evaluating test procedures for metals and miscellaneous products and supervising inspection programs.

Number of fabricators and manufacturers worked with: 500
Programs effected: 200 - 300 awarded construction contracts
Material contract value: \$150 million annually
Number of types of materials tests overseen: 100+ annually
Number of certification audits overseen: 60 - 85 annually

This position reports to the Engineer of Metals and Technical Studies. Reporting to this position are the Metals and Miscellaneous Products Quality Assurance Coordinator, Metals and Miscellaneous Products Laboratory Supervisor, Structural Products Engineer III, Structural Products Engineer II, Structural Products Engineer I, and Structural Products Engineer Trainee.

This position operates in an environment where s/he is responsible for providing guidance to the department related to metal and other miscellaneous products. The incumbent must communicate effectively and diplomatically with reinforcing and structural steel fabricators, producers, and suppliers. S/He works with metal, rubber, metal and plastic pipe, and adhesives to assist in procurement of available quality materials and make decisions as to the impact on quality and durability caused by substitution of products and materials. This position utilizes American Association of State Highway and Transportation Officials (AASHTO) and American Society for Testing and Materials (ASTM) standards to accomplish his/her work.

Typical problems include coordinating with other departmental offices and outside agencies to remain current on changing material specifications. One of the greatest challenges of this position is to maintain uniform quality control of reinforcing steel mills, zinc and epoxy coating facilities, elastomeric bridge bearing fabricators, corrugated metal and plastic pipe plants, and numerous other miscellaneous products through the application of technology, manpower, and testing equipment. An additional challenge is to coordinate efficient field sampling, laboratory testing, and qualification of manufacturing plants and products.

(Job Responsibilities continued)

The incumbent is accountable for advising and counseling district personnel, departmental offices, and other agencies on specifications and procedures necessary for producing quality fabrication and manufacturing and certifying construction products tested by the Bureau of Materials. S/He is accountable for new product investigations which include devising test procedures, evaluating results, and making recommendations as to the quality of the products. This position prepares reports and correspondence to assist the Engineer of Metals and Technical Studies in providing notification of the Bureau of Materials' decisions and recommendations. The incumbent prepares and updates the department's Manual for Materials Inspection, researches other test methods and procedures, and recommends revisions of the specifications to accommodate the use of new commodities, processes, and technologies. This position researches and advises the department's technical personnel, consultants, and contractors on a wide variety of material specifications. S/He assists with updating the material and producer/supplier coding system for the state-wide materials management system and schedules sample preparation and prioritization of the laboratory testing program. Additionally, the incumbent prepares policies and implementation activities of the various producer certification programs in the Metals and Technical Studies Unit. The incumbent interprets tests results, resolves problems in fabrication and certification procedures, and counsels manufacturers and departmental personnel on specifications and procedures. The incumbent serves on several National Transportation Product Evaluation Program (NTPEP) committees covering a broad range of metals and miscellaneous materials. NTPEP committees are comprised of representatives of every participating AASHTO member department, the Federal Highway Administration (FHWA) and industry associations. The committees develop NTPEP guidelines by establishing policies and operating procedures in accordance with stated program goals and an annual test program and makes decisions and appointments to execute it.

(Job Responsibilities continued)

The incumbent accomplishes responsibilities through the following staff:

Metals and Miscellaneous Products Quality Assurance Coordinator, who is responsible for coordinating field inspection and testing for certification programs reinforcing steel, metal, timber, rubber, adhesive, and plastic products; maintaining the specifications library; and making recommendations for keeping specifications current with product use and technological advancements.

Metals and Miscellaneous Products Laboratory Supervisor, who is responsible for competent testing of contractual metals and miscellaneous materials used in the state's highway construction and maintenance programs and scheduling and coordinating all work performed in the Bureau of Materials' machine shop.

Structural Products Engineer III, who under general supervision is accountable for effecting the application of materials testing technology in actual field situations; promoting uniform materials testing and practices throughout the state; inspecting facilities, products, and materials; collecting and analyzing data; assisting in writing specifications; and assisting district personnel in solving materials problems as they arise in a job environment.

Structural Products Engineer II, who under direct supervision is accountable for effecting the applications of materials testing technology in actual field situations; promoting uniform materials testing and practices throughout the state; inspecting facilities, products, and materials; collecting and analyzing data; and assisting district personnel in solving materials problems as they arise in a job environment.

Structural Products Engineer I, who under immediate supervision is accountable for effecting the application of materials testing technology in actual field situations, collecting and analyzing data, and assisting district personnel in solving materials problems as they arise in a job environment.

Structural Products Engineer Trainee, who under immediate supervision assists in effecting the application of materials testing technology in actual field situations, collecting and analyzing data, and assisting district personnel in solving materials problems as they arise in a job environment.

(Job Responsibilities continued)

The incumbent performs work with a minimal amount of supervision and has wide latitude in performing the functions of this position. Within the Bureau of Materials' established guidelines and procedures, the incumbent exercises judgment to recommend to district personnel the rejection of products which are not in compliance with the specifications.

Internal contacts include managers in the Bureau of Materials to discuss, advise, and procure information regarding specifications, test procedures, and new products. S/He has frequent contact with the Bureau of Design, Bureau of Construction, Bureau of Bridges and Structures, and Bureau of Operations regarding the interpretation of specifications and recommendations for revisions and field investigations. The incumbent also has considerable contact with district personnel concerning procedures of inspection of metals and miscellaneous products and commodity purchases. S/He has frequent contact with production facilities fabricators, both in-state and out-of-state to clear up disagreements regarding interpretations of specifications and shop plans. Externally s/he has contact with the state's purchasing agent regarding departmental purchases. The incumbent serves on several National Transportation Product Evaluation Program (NTPEP) committees covering a broad range of metals and miscellaneous materials. This position requires occasional in-state and out-of-state travel which may include overnight stays.

The effectiveness of the position is measured by the ability of the incumbent to provide knowledgeable consultation and interpretation of inspections and testing, make decisions and recommendations that will assure that quality products are economically purchased, and utilize management skills to create a cooperative working environment.

Principal Accountabilities

1. Provides consultation and interpretation of inspections and testing to ensure the materials meet departmental specifications.
2. Confers with fabricators, producers, and suppliers to assist in the procurement of available quality products for the construction and maintenance of the state's highway system.
3. Prepares and updates the department's Manual for Materials Inspection, researches other test methods and procedures, and recommends revisions of the specifications to accommodate the use of new commodities, processes, and technologies.
4. Prepares reports and correspondence to assist the Engineer of Metals and Technical Studies in providing notification of the Bureau of Materials' decisions and recommendations.
5. Oversees the updating of the material and producer/supplier coding system for the state-wide materials management system and schedules sample preparation and prioritization of the laboratory testing program.
6. Prepares policies and implementation activities of the various producer certification programs in the Metals and Technical Studies Unit.
7. Conducts on-site field visits to evaluate fabricated products to aid district personnel in making decisions regarding compliance to specifications.
8. Correlates evaluations of tests being performed and research of other test methods and procedures to ensure the department is economically purchasing high-quality materials.
9. Serves on several National Transportation Product Evaluation Program (NTPEP) committees covering a broad range of metals and miscellaneous materials and participates with regional and national testing initiatives.
10. Selects, trains, and motivates a competent staff to accomplish objectives.
11. Ensures subordinates comply with all departmental safety rules, practices, and procedures.
12. Performs duties in compliance with departmental safety rules. Performs all duties in a manner conducive to the fair and equitable treatment of all employees.
13. Performs other duties as assigned.

Qualifications

Position Requirements

- Current registration as a Licensed Professional Engineer in the state of Illinois
- Five years of experience in civil engineering
- Occasional in-state and out-of-state travel which may include overnight stays
- Valid driver's license

Position Desirables

- Supervisory and administrative experience
- Working knowledge of steel fabrication and production of metal, rubber, and plastic pipe
- Strong oral and written communication skills
- Ability to make decisions on quality and durability of products and materials
- Working knowledge of AASHTO and ASTM standards
- Strong knowledge of mechanics or materials

Work Hours: 8:00 A.M. - 4:30 P.M. Monday-Friday

Work Location: 126 E Ash St Springfield, IL 62704-4766

Office: Office of Highways Project Implementation/Bureau of Materials

Agency Contact: DOT.CO.BPM.EmploymentApplications@Illinois.gov

Job Family: Transportation

APPLICATION INSTRUCTIONS

Use the "Apply" button at the top right or bottom right of this posting to begin the application process.

If you are not already signed in, you will be prompted to do so.

State employees should sign in to the career portal for State of Illinois employees – a link is available at the top left of the [Illinois.jobs2web.com](https://illinois.jobs2web.com) homepage in the blue ribbon.

Non-State employees should log in on the using the “View Profile” link in the top right of the [Illinois.jobs2web.com](https://illinois.jobs2web.com) homepage in the blue ribbon. If you have never before signed in, you will be prompted to create an account.

If you have questions about how to apply, please see the following resources:

State employees: Log in to the career portal for State employees and review the [Internal Candidate Application Job Aid](#)

Non-State employees: on [Illinois.jobs2web.com](https://illinois.jobs2web.com) – click “Application Procedures” in the footer of every page of the website.

The main form of communication will be through email. Please check your “junk mail”, “spam”, or “other” folder for communication(s) regarding any submitted application(s). You may receive emails from the following addresses:

- donotreply@SIL-P1.ns2cloud.com
- systems@SIL-P1.ns2cloud.com