DEPARTMENT OF NATURAL RESOURCES
POSITION DESCRIPTION

WORKING TITLE: Regional Waste and Materials Management Engineer-Senior
CLASSIFICATION TITLE: Waste Management Engineer
WORK LOCATION: Northeast Region – (Green Bay) Headquarters Office and Northern or West Central Region – (Spooner or Eau Claire) Headquarters Office

PURPOSE OF THE POSITION: Under general supervision of the Regional Waste and Materials Management Supervisor, this position is responsible for planning, coordination and implementing the engineering aspects of the Waste Materials and Management Program.

The primary duties and responsibilities of the position are to conduct and coordinate evaluations of engineering design, construction and operation of existing and proposed recycling, solid waste and hazardous waste management and disposal facilities; of closure, long-term care and monitoring for operating solid and hazardous waste facilities and to determine adequacy with respect to site conditions, sound environmental engineering design principles, and to state and/or federal standards and regulations; to evaluate the compatibility of the existing or proposed site design and construction techniques with the environment; to evaluate, inspect and document the performance of these systems for compliance with standards and regulations; to develop, revise and improve programs for recycling facilities, and landfill water and gas site controls; to provide technical assistance and guidance to the public on designing, constructing and operating waste and materials management facilities and landfills; to provide expert testimony and support for enforcement actions; to encourage adoption and use of recycling methods at project planning and implementation stages; to coordinate activities with other Department programs and governmental agencies; to conduct evaluations of beneficial use projects for high-volume industrial wastes; and to provide technical assistance and engineering guidance to industries on the beneficial use of high-volume industrial wastes.

This position involves project management responsibilities for project reviews. This position makes independent decisions while doing complex engineering work assignments.

GEOGRAPHIC SCOPE AND TRAVEL REQUIREMENTS: This position is located in the Northern or West Central part of the state (Spooner or Eau Claire office) and has responsibility for waste and materials management facilities in the assigned counties throughout the Region and other areas of the state as assigned by the supervisor. Frequent travel is required within the assigned counties, with occasional travel to other locations in the state for inspections, training, meetings or conferences. This position is part of the Waste and Materials Management Program, and the person serves as a member of the Landfill Technical Group and other statewide teams as assigned by the supervisor.

RESPONSIBILIITIES AND DUTIES:

50% A. Perform the engineering review and project management of Plans of Operations, Site Construction Documents, Closure Plans, Remedial Action Plans and Plan Modifications for existing and/or proposed waste management and disposal facilities, hazardous waste treatment, storage & disposal (TSD) facility siting and exemptions for beneficial waste reuse.

A1. Coordinate the engineering review with legal staff; program hydrogeologists, chemists, and other engineers; with other Department

programs (i.e., wastewater treatment, water quality, air quality, water regulations and zoning), and other agencies where other approval or permits may be required such as DHS, OSHA, EPA, DOT, PSC, FAA, DATCP.

A2. Analyze relevant field conditions, collected site data and review published data relevant to the submitted plans and reports; review the submitted proposed design, construction, operation, long-term care maintenance and remedial action details in terms of State Statutes, Administrative Code requirements, engineering standards, engineering principles and practices, environmental siting factors, public health, safety and welfare, feasibility requirements, administrative orders, EPA criteria, accuracy and other applicable federal and state requirements; and determine the adequacy and inadequacies of the submitted plans and reports.

A3. Prepare reports in a format that will provide for documentation of all decisions which are subject to judicial review. This includes findings of facts, conclusions of law and special conditions of approval not covered by law or administrative codes. The special conditions have the force of law.

A4. Meet with applicants and consultants regarding conflicts over technical review and on the resolution of conflicts arising from the determination. Provide technical expertise to legal staff.

A5. Attend preconstruction meetings, and perform inspections during critical steps of facility construction. Properly document these events.

A6. Coordinate with waste and materials management hydrogeologists and other staff to conduct site compliance inspections and to collect specific data relevant to the inspection responsibilities.

A7. Prepare testimony, interrogatories, depositions, general correspondence, Governor's letters, Secretary's letters, letters for federal and state elected officials and mass media information on Department determinations.

A8. Represent the Department as an expert witness at public hearings, contested case hearings and in courts of law concerning the determination.

20% B. Conduct and/or coordinate with other program staff to conduct Department audits, investigations, evaluations, inspections and documentation of newly developed, existing or closed sites for compliance with and enforcement of environmental regulations, plan approval conditions, and court and administrative orders.

B1. Inspect and investigate failure of design, construction or operation; hazards to health, safety or welfare; nuisance conditions; and compliance with environmental regulations, approval conditions, and administrative measurements and tests.

B2. Evaluate data collected by the Department or by the regulated entity to

determine compliance with program requirements and environmental adequacy of facility performance.

B3. Document for the case file and for enforcement purposes the findings of the inspection, investigation and evaluation.

B4. Report findings to the environmental enforcement program staff for appropriate action.

B5. Advise the permit holder of observations, test results, violations of regulations and/or orders, and suggest actions to improve design and achieve compliance.

B6. As necessary, prepare special plan approval conditions, recommend provisions contained in administrative or consent order stipulations, and/or court order stipulations to bring the facility in compliance with environmental standards and regulations.

10% C. Consult with and provide technical assistance to the public, consultants, other program staff or other governmental agencies on waste and materials management issues.

C1. Provide information and technical assistance on program policies and procedures, Wisconsin Administrative Codes, State Statutes and related regulations including relevant federal EPA requirements.

C2. Discuss and evaluate design concepts, construction procedures, operation methods, closure requirements and long-term care needs.

C3. Prepare instructional or training materials relating to waste and materials management.

C4. Provide design guidance and criteria in the areas of engineering design, construction, site operation, closure, long-term care, and remedial action for correcting environmental problems.

C5. Provide engineering assistance, recommendations and advise the hydrogeologist in the co-review of Initial Site Reports, Pre-Feasibility Reports, Feasibility Reports, and Site Investigations Reports.

C6. Provide field inspection support to program hydrogeologists conducting geological surveys, groundwater investigations and groundwater quality sampling.

C7. Keep up-to-date on the latest technical developments by review of technical publications, inspection of new technologies and procedures, meeting with industry and attendance at formal training sessions.

10% D. Serve as a co-lead and assist in 2-3 technical expertise areas; and 1 focused work area to lead for their assigned facilities for the waste management engineering program and serve as statewide expert.

D1. As the statewide expert in the specified area of expertise, provide technical assistance to Department staff, engineering consultants and the public. Serve on statewide teams as necessary to provide expertise.

D2. Provide technical assistance and recommend policy and guidance related to the specified area of expertise.

5% E. Technical assistance

E1. Coordinate, collaborate and provide technical assistance related to Environmental Repair and Response program activities.

E2. Provide technical assistance to the Bureau of Environmental Analysis and Review, including preparing written environmental assessments, environmental impact statements and providing expert testimony at environmental impact statements hearings.

E3. Coordinate, collaborate and provide technical assistance to various DNR programs (i.e., storm water, wastewater, drinking water, water regulation and zoning and water quality management).

E4. Coordinate, collaborate and provide technical assistance to U.S. EPA, U.S.G.S. and other State agencies.

5% F. Initiate enforcement actions when outreach, technical assistance, and training do not bring facilities into compliance with State Statutes and Administrative Codes, or for situations where threats to human health or the environment are serious.

F1. Explain appropriate regulations to facilities when violations have or appear to be occurring.

F2. Provide technical assistance and training to systems operators to try to bring facilities back into compliance.

F3. Document alleged violations and follow-up actions in appropriate files and data bases.

F4. Prepare enforcement requests and route to supervisor for review when situations warrant such action.

Knowledge, Skills and Abilities:

1. Knowledge of environmental, chemical or civil engineering with a focus on the environment
2. Knowledge of environmental engineering concepts, principles and practices applicable to landfill design
3. Knowledge of basic Wisconsin and Federal solid waste laws and regulations; and principles, practices and techniques related to waste and materials management

4. Knowledge of and the ability to apply an understanding of water quality, environmental chemistry, soil or geotechnical engineering concepts
5. Skill in Microsoft Office applications, including Word, Excel, and Power Point
6. Ability to communicate effectively in both oral and written formats
7. Skill in public presentation with the ability to present technical information to meetings of peers, local government and the business community
8. Skill in training other staff, program partners and customers in waste management regulations, best practices, and DNR proceedures
9. Knowledge of Wisconsin and Federal solid and hazardous waste management laws, including state statutes and administrative rules, and policies pertaining to the Waste and Materials Management Program
10. Knowledge of solid waste policy and trends relating to waste minimization
11. Knowledge of state-of-the-art landfill design, construction and operation
12. Ability to independently conduct inspections of regulated facilities
13. Knowledge of best management practices related to beneficial use of industrial byproducts
14. Knowledge of Environmental Enforcement Techniques, having completed training offered by Environmental Enforcement staff
15. Ability to conduct environmental sampling per enforcement protocol as necessary, using proper QA/QC techniques

Positions included in these series have duties and responsibilities of such a nature that it is required (by federal or state law or by position analysis) that the incumbent have one of the following:

- Registration as a Professional Engineer as determined by the Department of Safety and Professional Services per s. 443.04, Wis. Stats.;
- a specific record, issued by the professional engineering section of the Department of Safety and Professional Services, showing 4 years or more of experience in engineering work of a character satisfactory to the professional engineering section and satisfactory completion of the fundamentals of engineering exam;
- have graduated from a recognized college or university with a degree in a related engineering field such as civil, chemical, electrical, environmental, or mechanical engineering; or has successfully completed the DNR engineering equivalency examination;
- have equivalent professional training and practical experience so as to be deemed a professional engineer as defined in Department of Safety and Professional Services per s. 443.01, Wis. Stats. AND also deemed to be qualified to engage in professional engineering practice as determined by the Department of Safety and Professional Services per s. 443.04 or 443.05, Wis. Stats.

Physical Requirements and Environmental Factors:

Strength Requirements
Sedentary work (exerting up to 10 pounds of force occasionally and/or a negligible amount of force frequently) about 90% over a year's time.
Light work (exerting up to 20 pounds of force occasionally and/or up to 10 pounds of force frequently) less than 10% over a year's time.

Physically, this position will spend 50 percent or more time indoors, doing work on computers, attending meetings and working with other DNR staff. This position will also spend time

outdoors performing compliance and construction inspections, and solid waste complaint investigations. A person in this position must be able to perform field work safely in remote locations during inclement weather and environmental conditions. A person in this position must have the ability to navigate rough terrain.

Environmental Factors: Very occasionally, the position may need to respond to complaints or environmental emergencies during times of extreme weather conditions.

Equipment Used: Basic office computer equipment. Environmental sampling equipment, including devices for sampling soil, groundwater, and liquid/solid waste.