

POSITION DESCRIPTION

This position description serves as the official classification document of record for this position. Please complete the information as accurately as you can as the position description is used to determine the proper classification of the position.	
2. Employee's Name (Last, First, M.I.)	8. Department/Agency ENVIRON, GREAT LAKES & ENERGY
3. Employee Identification Number	9. Bureau (Institution, Board, or Commission)
4. Civil Service Position Code Description Geologist-A	10. Division Materials Management Division (MMD)
5. Working Title (What the agency calls the position) Senior Geologist	11. Section Hazardous Waste
6. Name and Position Code Description of Direct Supervisor BRIDGFORD, DALE R; ENVIRONMENTAL MANAGER-3	12. Unit Technical Support Unit
7. Name and Position Code Description of Second Level Supervisor TYSON, KIMBERLY M; STATE ADMINISTRATIVE MANAGER-1	13. Work Location (City and Address)/Hours of Work 525 W. Allegan St, Lansing Michigan / 80 Hours per pay period
14. General Summary of Function/Purpose of Position This position serves as a senior level geologist for the Hazardous Waste (HW) Program. The primary function of this position is to manage and administer the hydrogeological investigation, evaluation, and recommended actions for selected projects that are hydrogeologically complex, more technically complex, and/or controversial under Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 111), and the administrative rules promulgated thereunder, and the federal Resource Conservation and Recovery Act of 1976 (RCRA). This position also functions as a HW Program project manager on an as needed basis for administrative and technical reviews of RCRA/Part 111 corrective action work at hazardous waste treatment, storage, or disposal facilities (TSDF).	

15. Please describe the assigned duties, percent of time spent performing each duty, and what is done to complete each duty.

List the duties from most important to least important. The total percentage of all duties performed must equal 100 percent.

Duty 1

General Summary:

Percentage: 50

Serve as lead geologist on HW Program corrective action projects by providing review and evaluation at technically complex and/or controversial Part 111 facilities.

Individual tasks related to the duty:

- Review and comment on site investigation plans in relation to determining the rate and extent of contaminant migration.
- Review and provide technical comments on site investigation reports in relation to site history, geological conditions, hydrogeologic characterization, sampling data, groundwater flow, and sampling methods.
- Review proposals for corrective measures to control environmental and human health exposures to assure compliance with current Part 111 regulations.
- Review environmental monitoring proposals and long-term operation and maintenance plans at corrective action sites.
- Review and research new and/or innovative remediation technology.
- Conduct inspections and split samplings of various environmental media during site investigations to assure corrective measures are effective.
- Conduct construction inspections regarding the installation of various corrective measures such as landfill liners and caps, monitoring wells, subsurface cut-off walls, clay dikes, dewatering systems, purge systems, in-situ treatment, predictive modeling verification, etc.
- Conduct Corrective Action Final Cover, and Corrective Action Monitoring and Maintenance (CAMM) Inspections at Part 111 facilities as required in the fiscal year RCRA Grant Work Plan to determine if a facility is adequately addressing all monitoring and maintenance requirements.
- Complete human exposures controlled (CA725) and groundwater controlled (CA750) United States Environmental Protection Agency (U.S. EPA) Environmental Indicator (EI) forms; draft construction complete (CA550), Performance Standards Attained (CA900/CA999) determinations; coordinate with HW Program project team members to complete Ready for Anticipated Use (CA800) forms as necessary to meet fiscal year RCRA Grant Work Plan commitments

Duty 2

General Summary:

Percentage: 25

Evaluate groundwater and other environmental sampling data from various monitoring systems to determine facility compliance with operating licenses, federal interim status regulations, and Michigan environmental standards.

Individual tasks related to the duty:

- Conduct Comprehensive Groundwater Monitoring Evaluations (GME) at Part 111 land disposal facilities as required in the fiscal year
- RCRA Grant Work Plan to determine the validity and adequacy of facility groundwater monitoring systems, sampling and analysis programs, and statistical analysis of groundwater data.
- Conduct Operation and Maintenance (OAM) Inspections at Part 111 land disposal facilities as required in the fiscal year RCRA Grant Work Plan to determine if a facility's groundwater monitoring program is being adequately maintained and conducted in accordance with the approved plan.
- Conduct Postclosure Cap (PC Cap) inspections at Part 111 land disposal facilities as required in the fiscal year RCRA Grant Work Plan to evaluate compliance with applicable requirements.
- Review and evaluate environmental monitoring data (groundwater, soil, surface water) for compliance with the operating license or environmental standards. Reviews include location of samples, evaluation in relation to hydrogeological setting, field procedures and sampling methods, detection limits, statistical analysis, reporting deadlines, and appropriate cleanup criteria.
- Review and develop responses to Annual Groundwater Reports to determine compliance with monitoring requirements.
- Provide technical expertise and support to enforcement and district staff for sampling inspections or other geotechnical issues (investigations, inspections, or reviews).

Duty 3

General Summary:

Percentage: 15

Review complex and/or controversial facility hazardous waste operating license applications for compliance with hydrogeological, location, environmental monitoring, and closure regulations of Part 111 and RCRA. Conduct inspections and provide review and oversight of soil boring and monitor well drilling activities at Part 111 facilities to assure proper subbase geological conditions and to evaluate boring/well location, logging, depths, drilling technology, soil sampling techniques, and well construction and installation.

Individual tasks related to the duty:

- Review and evaluate hydrogeological studies contained in license applications for compliance with Part 111, including geologic siting criteria, identification of aquifers, groundwater flow direction, & appropriate monitoring zones.
- Review and evaluate environmental monitoring proposals contained in license applications for compliance with rules and regulations of Part 111, including groundwater, soil, and surface water.
- Assure that detection monitoring programs are capable of detecting releases, and that corrective action plans adequately characterize and remediate the site to protect public health and the environment.
- Assure that monitoring plans have appropriate sampling methods, analytical techniques, quality analysis/quality control procedures, considerations for vertical and horizontal gradients, aquifer thickness, solubility and specific gravity of potential contaminants, degradation products, decontamination, preservation, shipping, and appropriate statistical procedures.
- Attend meetings and public hearings, present findings of the application review, and discuss state requirements regarding permit applications with industry, consultants, local and regional government officials, the U.S. EPA, and the general public.
- Review, evaluate, and provide recommendations for the installation of groundwater monitoring system and alternate monitoring systems and establishment of long-range monitoring programs and schedules. Review and provide advice regarding well construction and plugging/abandonment techniques for any well replacement or termination of monitoring proposals. Conduct visual inspections/ records reviews to assure that proper and approved soil boring and monitor well drilling and installation procedures are being followed.
- Assure adequacy of any geophysical testing performed for verification of sub-base geological materials and assist with the testing as appropriate.
- Produce field reports describing inspections conducted, test boring and well logs completed, and data collected (soil description, well construction details, etc.).

Duty 4

General Summary:

Percentage: 5

Serve as HW Program project manager for assigned sites overseeing administrative and technical reviews of RCRA/Part 111 corrective action work at TSDFs.

Individual tasks related to the duty:

- Serve as the primary contact person for specific assigned sites.
- Coordinate reviews from Department staff and other agencies for assigned sites.
- Complete technical and administrative reviews of plans and other submitted information to assure compliance with RCRA/Part 111 corrective action requirements.
- Draft letters that approve submittals or deny the submittal and request modifications and resubmittal.
- Arrange and participate in public meetings and hearings for assigned sites to facilitate discussion of public comment as per RCRA/Part 111 requirements.

Duty 5

General Summary:

Percentage: 5

Serve as the HW Program representative on special projects and committees as assigned.

Individual tasks related to the duty:

- Serve as the HW Program representative on special projects and committees as assigned.
- Attend meetings and participate in conference calls/with committee members and stakeholders.
- Develop and maintain the knowledge/expertise necessary to complete assignments.
- Research specialty areas and develop specialized expertise, as necessary.
- Share information in specialty areas with HW Program staff, Department representatives, and the U.S. EPA.
- Answer technical and administrative questions to support HW Program needs.
- Provide input on Policy and Procedure and Guidance documents.
- Provide expert witness testimony on assigned projects, as necessary.

16. Describe the types of decisions made independently in this position and tell who or what is affected by those decisions.

- Approval or denial of work plans and completed work in regard to hazardous waste management corrective action activities. Decisions affect the facility's compliance status, cost of remediation/operation, and potential impacts to human health and the environment.
- Determination of hazardous waste management facility compliance based on review of environmental monitoring reports. Decisions affect the facility's compliance status, cost of monitoring programs, and potential impacts to human health and the environment.
- Determination of adequacy of environmental monitoring plans for hazardous waste management facilities. Decisions affect the facility's compliance status, cost of monitoring programs, and potential impacts to human health and the environment.
- Assessment of adequacy of groundwater and soil remediation plans. Decisions affect the facility's compliance status, cost of remediation/operation, and potential impacts to human health and the environment.
- Determination of adequacy of postclosure cap activities, maintenance, and monitoring. Decisions affect the facility's compliance status, cost of remediation/operation, and potential impacts to human health and the environment.
- Verify materials specifications at hazardous waste facilities with an operating license or corrective action under Part 111. This includes soil boring or monitoring well drilling activities to provide oversight and review of location, logging, depths, drilling technology, soil sampling techniques, well installation materials and installation, etc. Decisions affect the facility's compliance status, cost of remediation/operation, and ability to discern potential impacts to human health and the environment.
- Conduct geological administrative completeness reviews of Part 111 license applications. Decisions affect the facility's ability and cost to operate and potential impacts to human health and the environment.
- Conduct extensive geological reviews of Part 111 license applications to determine geologic adequacy of the site. Decisions affect the facility's ability and cost to operate and potential impacts to human health and the environment.
- Conduct geological reviews of closure and postclosure plans submitted for hazardous waste management units to ensure that they provide long term protective controls and monitoring. Decisions affect the facility's compliance status, cost of remediation/operation, and ability to discern potential impacts to human health and the environment.
- Develop environmental monitoring license conditions, license language, and corrective action requirements and performance standards for Part 111 operating licenses. Decisions affect the facility's ability and cost to operate and potential impacts to human health and the environment.

17. Describe the types of decisions that require the supervisor's review.

Decisions where there is no precedent, operating procedures, or guidance document on an important case or technical situation where a precedent may be set, interpretation of regulation which may set precedent, or determination of work priorities where a major conflict arises. This position would then (with management support) be instrumental in developing a guidance document for initial or baseline decision-making.

18. What kind of physical effort is used to perform this job? What environmental conditions in this position physically exposed to on the job? Indicate the amount of time and intensity of each activity and condition. Refer to instructions.

Much physical effort in the field is necessary to oversee and conduct the gathering of geological data, hydraulic calibration data, geophysical investigations, confirmation data for statistical indications, construction/installation inspections for determining site acceptability and collecting of monitoring data to evaluate site performance. Visits to existing disposal areas may be hazardous due to heavy equipment operating during construction activities, traversing irregular terrain or exposure to toxic chemicals which may be present.

19. List the names and position code descriptions of each classified employee whom this position immediately supervises or oversees on a full-time, on-going basis.

Additional Subordinates

20. This position's responsibilities for the above-listed employees includes the following (check as many as apply):

- | | | | |
|----------------------------|------------------------------------|----------------------------|-----------------------------------|
| <input type="checkbox"/> N | Complete and sign service ratings. | <input type="checkbox"/> N | Assign work. |
| <input type="checkbox"/> N | Provide formal written counseling. | <input type="checkbox"/> N | Approve work. |
| <input type="checkbox"/> N | Approve leave requests. | <input type="checkbox"/> N | Review work. |
| <input type="checkbox"/> N | Approve time and attendance. | <input type="checkbox"/> N | Provide guidance on work methods. |
| <input type="checkbox"/> N | Orally reprimand. | <input type="checkbox"/> N | Train employees in the work. |

22. Do you agree with the responses for items 1 through 20? If not, which items do you disagree with and why?

Yes

23. What are the essential functions of this position?

Conduct hydrogeological reviews and environmental monitoring data evaluations in support of the state HW Program's licensing and compliance activities. Perform environmental sampling inspections to evaluate facility operating performance to ensure that public health and the environment are protected. Review and approve corrective action work plans, track compliance with work schedules, and oversee work in the field. The ability to use personal protective equipment in accordance with state and federal law is an essential function of this position. At this time, the ability to use a respirator is an essential function of this position.

24. Indicate specifically how the position's duties and responsibilities have changed since the position was last reviewed.

New position

25. What is the function of the work area and how does this position fit into that function?

This position is assigned to a work area responsible for providing technical support and expertise for Michigan's HW Program. The HW Program (state and federal) has extensive and intricate requirements for hydrogeological evaluation, environmental monitoring, closure, and corrective action program responsibilities. This position is integral in this program because the determinations directly affect whether a HW operating license can be issued, denied, or modified; whether a facility closure can be approved; whether wells or borings are correctly constructed, located, or abandoned for effective environmental monitoring to protect Michigan's resources; and whether an interim or final corrective measure is appropriate and will perform as proposed and ensure long-term containment and protect human health and the environment. This position also tracks and monitors completion of specific RCRA Grant commitments for inspections to assist the Section in achieving fiscal year contractual obligations to the EPA (for both quantity and quality).

26. What are the minimum education and experience qualifications needed to perform the essential functions of this position.

EDUCATION:

Possession of a bachelor's degree in geology, geological science, hydrogeology, geophysics, or geological, petroleum, or mining engineering.

EXPERIENCE:

Geologist 12

Three years of professional experience in carrying out geological activities to protect, develop and maintain natural resources equivalent to a Geologist, including one year equivalent to Geologist P11.

Alternate Education and Experience

Geologist 9 - 12

Possession of a bachelor's degree in environmental geoscience, earth science, or environmental science with 15 semester (23 quarter term) credits in the following core geology classes: physical geology, sedimentology/stratigraphy, mineralogy/petrology, structural geology and field instruction; additionally, the candidate must have 21 semester (32 quarter term) credits in elective geology coursework; and two courses each in calculus, chemistry and physics. This may be substituted for the educational requirement.

KNOWLEDGE, SKILLS, AND ABILITIES:

This position requires extensive technical knowledge in the area of hydrogeology, statistics, site investigation and remediation procedures, and an understanding of complex environmental regulations. Also, the ability to communicate well in writing and verbally. The ability to work with diverse groups to come to a consensus and strong customer service skills are necessary.

CERTIFICATES, LICENSES, REGISTRATIONS:

- 40-hour or 24-hour Safety Training with annual updates; required Hazardous Waste Operations and Emergency Response training).
- National Incident Management System (NIMS) Training with updates every 3 years (ICS-100, ICS-200, and IS-700).
- CPR and First Aid Training.
- A valid Michigan Driver's License is preferred.
- Annual Health Monitoring.
- Annual Respirator Fit Test.

NOTE: Civil Service approval does not constitute agreement with or acceptance of the desired qualifications of this position.

I certify that the information presented in this position description provides a complete and accurate depiction of the duties and responsibilities assigned to this position.

Supervisor

Date

TO BE FILLED OUT BY APPOINTING AUTHORITY

Indicate any exceptions or additions to the statements of employee or supervisors.

None

I certify that the entries on these pages are accurate and complete.

RYAN STARKWEATHER

1/31/2023

Appointing Authority

Date

I certify that the information presented in this position description provides a complete and accurate depiction of the duties and responsibilities assigned to this position.

Employee

Date