STATE OF INDIANA CLASSIFICATION SPECIFICATION	**Class Title:** Environmental Chemist 1		**Class Code:** 001IC1
	FLSA Status: Exempt	**Salary Schedule:** RDS	**Effective Date:** 10-17-14
	Summary: Incumbent utilizes specialized technical knowledge of numerous state and federal regulations in evaluation of air, water, waste and soil data in agency required plans.		

Duties:

- Determines the chemical impact of regulations on the environment and on other programs and proposes revisions to existing regulations or formulation of new regulations;
- Performs peer review evaluations of environmental chemistry reports and data validation memoranda;
- Leads and serves as an agency environmental chemistry representative to cross-media, inter-agency, interstate and regional task forces, committees and work groups;
- Mentors and trains environmental chemistry lower-level staff and office technical staff with regards to environmental chemistry related issues;
- Provides technical and regulatory consultation to intra-agency staff, other public agencies, private contractors, consultants, responsible parties, lawyers and the public regarding sampling and analytical criteria, analytical data evaluation, site characterization and remediation methods for cases involving possible contamination of the environment and endangerment of human health;
- Interprets federal and state laws and rules to determine best methods for implementing new technologies and methodologies in and across disciplines;
- Interprets federal guidelines and regulations and develops internal guidance on chemistry and related sciences to support program operation and development;
- Negotiates, establishes and maintains program contracts and technical specifications for work in chemistry or related disciplines with potential vendors, including the determination of audit procedures and penalties, to implement and meet agency requirements;
- Manages and administers contract compliance and determines acceptability of work products;
- Functions as a liaison with federal agencies to interpret revisions in federal regulations and develops and implements appropriate changes in state rules and policies;
- Initiates and standardizes chemistry monitoring research and monitoring techniques;
- Implements and facilitates modifications to agency processes and procedures;
- Writes chemistry specifications and guidance for the regulated community and other general public customers to achieve compliance with vague regulations and standards, agency objectives and/or unwritten agency policy;
- Writes internal guidance for chemistry and related sciences to support program areas to deal with these new needs;
- Evaluates extremely high profile field sampling, laboratory analytical processes, site characterizations and other chemistry related factors for technical feasibility and adequacy in the review of agency required plans and permit applications;
- Evaluates sampling documentation, analytical data and laboratory QA/QC reports for quality assurance criteria and technical adequacy to meet project data quality objectives (DQOs);
- Plans sampling events, develops sampling and analysis plans and may perform sampling or project oversight of contractor sampling to support project data quality objectives;
- Assists in investigating known or suspected sites of environmental concern to the agency;
- Prepares reports for staff regarding evaluations performed, recommends approval, modification or denial of plans, permit applications and closure demonstrations based upon findings;
- Performs related duties as required.

Job Requirements:

- Broad knowledge of agency program processes as related to the discipline of chemistry;
- Broad knowledge of all federal policies, guidelines, goals and procedures of the relevant program area;
- Broad knowledge of analytical, organic and inorganic chemistry related to environmental monitoring and its application to the relevant program areas;
- Broad knowledge of, and the ability to interpret and apply, a wide range of regulations, statutes and guidelines;
- Working knowledge of biology, toxicology, biochemistry and geology as needed for the environmental regulations and program development;
- Broad knowledge of environmental quality assurance/quality control as applicable to laboratory operating procedures, audit processes and contract requirements;
- Working knowledge of legal and court procedures for collection of evidence;
- Working knowledge of word processing, spreadsheets and other application software;
- Working knowledge of the Occupational Health and Safety Administration laboratory safety practices and procedures;
- Ability to write narrative reports and prepare effective presentations;
- Ability to use chemistry expertise in developing and proposing new policies, procedures and guidance to improve the section's and branch's programs;
- Ability to conduct intensive research for environmental monitoring advancements of the programs and to determine resolutions and new approaches to various problems, many of which are unprecedented;
- Effectively communicate, both orally and in writing complex, technical chemistry concepts;
- Ability to determine critical project elements and establish and meet program objectives;
- Ability to assimilate and integrate knowledge and information related to chemistry, the related disciplines of biology, toxicology, biochemistry and geology and the principles of environmental protection to specific situations.

Difficulty of Work:

Work requires broad judgment and innovative thinking in interpreting and proposing major environmental program modifications. Incumbent develops procedures, policies, training plans, guidance documents and regulations for new state programs based upon federal guidelines. Incumbent must determine if new federal regulations and guidelines require changes in current operations. Guidelines are vague, non-existent or contradictory, of which the incumbent must interpret and apply in order to develop, test and implement new technologies which have statewide impact. Work is often difficult when determining regulatory authority and responsibility among various state and federal agencies, as clear-cut policy and protocol are not defined. Work involves dealing with groups and technologies, which have conflicting objectives on multi-faceted problems requiring a high level of decision-making, diplomacy and non-routine problem solving. Synthesizing all relevant state and federal laws, regulations and guidance that may overlap or be in direct conflict, to formulate sound, statewide technical policy may be extremely difficult.

Responsibility:

Incumbent receives broad, general direction from the supervisor as well as project priorities. Incumbent and supervisor discuss the needed changes and process improvements and the incumbent must then utilize their own technical abilities and resources to test and implement the modifications. Work is reviewed upon project completion or upon critical milestones as projects may extend across many years. Work is reviewed for effectiveness and impact upon the agency's mission. Errors in judgment could go undetected and may result in major costs to the regulated community and have major impact on human health and the environment. Since the incumbent must develop and implement statewide policy, which would then be executed by lower-level chemists, errors in programmatic design may affect many or all sites across the state. This may lead to various undetected contaminant problems causing illness, disease or death. Incumbent is responsible for the design and implementation of technological studies and research. Established or modified technical programs and processes are the basis by which lower - level chemists make site specific decisions. Technical recommendations are instrumental in shaping the direction and improved effectiveness of the agency's statewide chemistry programs.

Personal Work Relationships:
Incumbent works with a wide variety of individuals including the public, political activist groups, consultants, agency personnel, contract facilities, the regulated community and representatives of federal, state and local government. These contacts are for the purpose of interpreting, developing and gaining support of, and compliance with, rules, laws, regulations and contract agreements. Contacts may have a significant impact on the development and modification of chemistry processes in agency programs.

Work Environment:
Incumbent performs majority of duties in office setting but also in a field setting as needed. The incumbent is required to use advanced safety equipment on some sites. Such equipment and safety gear may cause heat exhaustion and heat stress during the performance of normal field activities. There is always the potential of unknowingly being exposed to possible carcinogenic or mutagenic materials which may pose immediate or future health risks to incumbent.