



STATE OF COLORADO

CLASS SERIES DESCRIPTION
JULY2015

ENVIRONMENTAL PROTECTION SPECIALIST

I3A11* TO I3A6**

Specialty Areas

- A. Air Quality
- B. Consumer Protection
- C. Land Resources
- D. Health Physics
- E. Waste Management
- F. Water Quality
- G. Generalists

DESCRIPTION OF OCCUPATIONAL WORK

This class series uses six levels in the Physical Sciences and Engineering Occupational Group and describes professional scientific application work in monitoring, controlling, preserving, reclaiming, or regulating the environment and natural resources in which people live and work. Positions apply the theories, principles, and models of the physical sciences to planning, implementation, and evaluation of programs aimed at preserving and improving the use of these physical, natural resources and protecting the public health. Positions monitor and inspect facilities and the environment to determine their qualities and identify pollutants and contaminants. Positions work with private companies and governmental agencies to enforce laws and regulations aimed at protecting the public health and safety and/or remediating the environment. Positions work in providing public services as they issue permits, inspect, monitor compliance, and reclaim and revitalize the natural resources and the environment. They also work with contractors and private corporations in preventing hazards or pollutants from entering the environment. Positions review plans, remedial action and design documents, and proposals for compliance with regulations, laws, and policies. The work typically includes researching, developing, and writing regulations. Some positions oversee projects or programs oriented towards removing pollutant or contaminant hazards from existing sources by managing state and federal projects in these areas.

The classes in this series range from the entry level through the second-level supervisor. This class series is distinguished from other scientist or specialist classes by its focus on, and work directly with environmental issues, problems, or programs by applying the physical sciences as defined for the above specialty areas.

INDEX: The Environmental Protection Intern and Specialist I begin on this page, the Environmental Protection Specialist II begins on page 3, the Environmental Protection Specialist III begins on page 6, the Environmental Protection Specialist IV begins on page 8, and the Environmental Protection Specialist V begins on page 10.

ENVIRONMENTAL PROTECTION INTERN

I3A11*

CONCEPT OF CLASS

This class describes the entry level. Work is designed to train positions for a higher level in the class series. Although tasks are similar to those of the higher levels, assignments are structured and performed with direction and assistance from others. Positions carry out established work processes and operations by learning to apply and follow procedures, techniques, rules, and regulations. Once training has been completed, the position is to be moved to the next level. Positions should not remain in this class indefinitely.

ENVIRONMENTAL PROTECTION SPECIALIST I I3A2T*

CONCEPT OF CLASS

This class describes the first-working level to this series. Positions in this level learn the procedures, regulations, policies, and statutes dealing with projects or programs in a specialty area. Either as a team member or under the direction of a supervisor or work leader, positions review plans or applications for compliance with specified requirements, search records for background or precedent materials, analyze information, and provide recommendations on inspection or follow-up actions with the consultation of supervisors. Some positions inspect facilities, sites, plants, construction, or operations to obtain information and collect data. The work may include monitoring reclamation or clean-up projects for conformance with contractual obligations. Some positions review or verify public complaints on pollutants, emissions, or waste discharges.

FACTORS

Allocation must be based on meeting all of the three factors as described below.

Decision Making -- The decisions regularly made are at the operational level, as described here. Within limits set by the specific process, choices involve deciding what operation is required to carry out the process. This includes determining how the operation will be completed. For example, positions develop the inspection guides or decide the frequency and scope for conducting compliance reviews. Positions also determine the best way to handle complaints or decide how to analyze environmental pollution data. By nature, data needed to make decisions are numerous and variable so reasoning is needed to develop the practical course of action within the established process. Choices are within a range of specified, acceptable standards, alternatives, and technical practices. For example, in analyzing water issues, positions decide potential impacts based on established alternative treatment solutions.

Complexity -- The nature of, and need for, analysis and judgment is patterned, as described here. Positions study scientific data and reports to determine what it means and how it fits together in order to get practical solutions in the form of compliance actions or cleanup plans. Guidelines in the form of regulations, standards, or limits exist for most situations. For example, in inspecting for product safety, regulations exist for most types of products. Judgment is needed in locating and selecting the most appropriate of these guidelines which may change for varying circumstances as the task is repeated. This selection and interpretation of guidelines involves choosing from alternatives where all are correct but one is better than another depending on the given circumstances of the situation. As an example, waste discharge limits exist for most types of permits and a position chooses the more appropriate.

Line/Staff Authority -- The direct field of influence the work of a position has on the organization is as an individual contributor. The individual contributor may serve as a resource or guide by advising others on how to use processes within a system or as a member of a collaborative problem-solving team.

ENVIRONMENTAL PROTECTION SPECIALIST II 13A3**

CONCEPT OF CLASS

This class describes the fully-operational program specialist. Positions in this level decide the particular operations of their assigned area. Some positions also serve as a member of a multi-disciplinary team evaluating, planning, and implementing a natural resource protection, recovery, remediation, reclamation, or removal project. This involves such things as planning and developing remedial action plans; estimating fiscal and manpower requirements for projects; evaluating applications for permits and licenses; analyzing the public health or environmental impacts of industrial and manufacturing operations, and formulating plans to mitigate their impacts on human health and the environment; conducting tests and studies relating to any of the environmental media; inspecting for and investigating sources of pollutants, diseases, safety hazards, or contaminants; recommending enforcement actions against violators; training others on environmental and public health programs and educating the public on issues and solutions to problems; and preparing reports on program activities and objectives. Some positions also set field inspection procedures, establish quality control measures, certify monitoring equipment operations, and evaluate data for compliance with regulations. Positions may also develop alternative plans for mitigating environmental impacts on natural resources, ecosystems, or on public health. As a fully-operational program specialist, this class differs from the Environmental Specialist I class in the Purpose of Contact factor and in either the Decision Making or Complexity factor. Either the Decision Making or the Complexity must be at the higher of the levels listed below.

FACTORS

Allocation must be based on meeting all of the three factors as described below.

Decision Making -- The decisions regularly made are at the operational level, as described here. Within limits set by the specific process, choices involve deciding what operation is required to carry out the process. This includes determining how the operation will be completed. For example, positions develop the inspection guides or decide the frequency and scope for conducting compliance reviews. Positions also determine the best way to handle complaints or decide how to analyze environmental pollution data. By nature, data needed to make decisions are numerous and variable so reasoning is needed to develop the practical course of action within the established process. Choices are within a range of specified, acceptable standards, alternatives, and technical practices. For example, in analyzing water issues, positions decide potential impacts based on established alternative treatment solutions. NOTE: For this class, this level of Decision Making must be with Complexity at the Formulative level.

OR

The decisions regularly made are at the process level, as described here. Within limits set by professional standards, the agency's available technology and resources, and program objectives and regulations established by a higher management level, choices involve determining the process, including designing the set of operations. For example, positions decide the processes for accomplishing unit work based on higher management's program limits and objectives. This may entail

such things as setting the permit process, analysis, and approvals or setting the reporting process for safety complaints or recalls. The general pattern, program, or system exists but must be individualized. As an example, a position decides the individualized process to remediate certain kinds of land which is polluted. This individualization requires analysis of data that is complicated. Analysis is breaking the problem or case into parts, examining these parts, and reaching conclusions that result in processes. This examination requires the application of known and established theory, principles, conceptual models, professional standards, and precedents in order to determine their relationship to the problem. As an example, establishing a permitting process entails deciding what agencies need to review or comment, whether existing processes can cover all types of applications for permits, and whether all background information is readily available to analyze the applications. New processes or objectives require approval of higher management or the agency with authority and accountability for the program or system.

Complexity -- The nature of, and need for, analysis and judgment is patterned, as described here. Positions study scientific data and reports to determine what it means and how it fits together in order to get practical solutions in the form of remediation plans or environmental mitigation.

Guidelines in the form of regulations, legal rights, or contamination limits exist for most situations. For example, in inspecting health and food products, inspection standards are specified by federal or state regulations. Judgment is needed in locating and selecting the most appropriate of these guidelines which may change for varying circumstances as the task is repeated. This selection and interpretation of guidelines involves choosing from alternatives where all are correct but one is better than another depending on the given circumstances of the situation. As an example, positions must interpret the potential impacts of hazardous wastes based on the specific type of waste or materials available to treat or remove the waste, and the human proximity to exposure. NOTE: For Complexity at this level, Decision Making must be at the Process level.

OR

The nature of, and need for, analysis and judgment is formulative, as described here. Positions evaluate the relevance and importance of physical science theories, concepts, and principles in order to tailor them to develop a different approach or tactical plan to fit specific circumstances. While general policy, precedent, or non-specific practices exist, they are inadequate so they are relevant only through approximation or analogy. For example, state health standards may address product safety but they may be inadequate when choosing the appropriate standard to use with evaluating a new consumer product. Positions then must apply the appropriate safety principle to the issue. In conjunction with theories, concepts, and principles, positions use judgment and resourcefulness in tailoring the existing guidelines so they can be applied to particular circumstances and to deal with emergencies. As an example, following a chemical waste spill, positions must adapt the available clean-up guidelines to deal with the emergency. This may involve changing clean-up actions to account for different chemical properties of dissipation.

Line/Staff Authority -- The direct field of influence the work of a position has on the organization is as an individual contributor. The individual contributor may explain work processes and train others. The individual contributor may serve as a resource or guide by advising others on how to use processes within a system or as a member of a collaborative problem-solving team. This level may include positions performing supervisory elements that do not fully meet the criteria for the next level in this factor.

ENVIRONMENTAL PROTECTION SPECIALIST III

13A4**

CONCEPT OF CLASS

This class describes work leader or a project or team leader working with environmental issues. Positions at this level perform some elements of supervision over others. Typically, these positions assign and monitor work, train newly assigned team members, evaluate work progress and provide redirection when necessary, establish priorities and schedules for work accomplishment, and provide input into performance and tenure to the positions' unit supervisor. This class differs from the Environmental Specialist II class in the Line/Staff Authority factor and may have a higher level of Decision Making or Complexity.

FACTORS

Allocation must be based on meeting all of the three factors as described below.

Decision Making -- The decisions regularly made are at the process level, as described here. Within limits set by professional standards, the agency's available technology and resources, and program objectives and regulations established by a higher management level, choices involve determining the process, including designing the set of operations. For example, positions decide the processes for accomplishing unit work based on higher management's program limits and objectives. This may entail such things as setting the permit process, analysis, and approvals or setting the reporting process for safety complaints or recalls. The general pattern, program, or system exists but must be individualized. As an example, a position decides the individualized process to remediate certain kinds of land which is polluted. This individualization requires analysis of data that is complicated. Analysis is breaking the problem or case into parts, examining these parts, and reaching conclusions that result in processes. This examination requires the application of known and established theory, principles, conceptual models, professional standards, and precedents in order to determine their relationship to the problem. As an example, establishing a permitting process entails deciding what agencies need to review or comment, whether existing processes can cover all types of applications for permits, and whether all background information is readily available to analyze the applications. New processes or objectives require approval of higher management or the agency with authority and accountability for the program or system.

Complexity -- The nature of, and need for, analysis and judgment is formulative, as described here. Positions evaluate the relevance and importance of physical science theories, concepts, and principles in order to tailor them to develop a different approach or tactical plan to fit specific circumstances. While general policy, precedent, or non-specific practices exist, they are inadequate so they are relevant only through approximation or analogy. For example, state health standards address product safety but are inadequate for choosing the appropriate standard to use with evaluating a new consumer product. Positions then must apply the appropriate safety principle to the issue. In conjunction with theories, concepts, and principles, positions use judgment and resourcefulness in tailoring the existing guidelines so they can be applied to particular circumstances and to deal with emergencies. As an example, following a chemical waste spill, positions must adapt the available clean-up guidelines to deal with the emergency. This may involve changing clean-up actions to account for leaching processes that work differently in colder weather.

Line/Staff Authority -- The direct field of influence the work of a position has on the organization is as a work leader or staff authority. The work leader is partially accountable for the work product of two or more full-time equivalent positions, including timeliness, correctness, and soundness. At least one of the subordinate positions must be in the same series or at a comparable conceptual level.

Typical elements of direct control over other positions by a work leader include assigning tasks, monitoring progress and work flow, checking the product, scheduling work, and establishing work standards. The work leader provides input into supervisory decisions made at higher levels, including signing leave requests and approving work hours. This level may include positions performing supervisory elements that do not fully meet the criteria for the next level in this factor.

OR

The staff authority is a pacesetter who has a unique level of technical expertise in a field or profession that, as part of the assignment, is critical to the success of an agency. It is an essential component of the work assignment that has been delegated by management to the position. This authority directly influences management decisions within an agency. For example, management relies on such a position when making decisions regarding the direction that policy or a program should take in the staff authority's field of expertise. Managers and peers recognize and seek this level of technical guidance and direction regarding the application of a program or system within the agency or to its clients. As an example, an agency authority advises peers and managers on expected side effects of new radiation hazards or the impacts of new emission control technology on the state's ability to meet EPA standards.

ENVIRONMENTAL PROTECTION SPECIALIST IV 13A5**

CONCEPT OF CLASS

This class describes the unit supervisor or senior authority level. In addition to the work described in lower classes, positions in this level supervise others involved in any of the specialty areas of this series. As unit supervisors, positions have accountability for actions and decisions that can impact subordinates' pay, status, or tenure. Positions that function as senior authorities have direct influence over the decisions of others beyond agency boundaries. This class differs from the Environmental Specialist III on its Line/Staff Authority factor and possibly in Decision Making.

FACTORS

Allocation must be based on meeting all of the three factors as described below.

Decision Making -- The decisions regularly made are at the process level, as described here. Within limits set by professional standards, the agency's available technology and resources, and program objectives and regulations established by a higher management level, choices involve determining the process, including designing the set of operations. For example, positions decide the processes for accomplishing unit work based on higher management's program limits and objectives. This may entail such things as setting the permit process, analysis, and approvals or setting the reporting process for safety complaints or recalls. The general pattern, program, or system exists but must be individualized. As an example, a position decides the individualized process to remediate certain kinds of land which is polluted. This individualization requires analysis of data that is complicated. Analysis is breaking the problem or case into parts, examining these parts, and reaching conclusions that result in processes. This examination requires the application of known and established theory, principles, conceptual models, professional standards, and precedents in order to determine their relationship to the problem. As an example, establishing a permitting process entails deciding what agencies need to review or comment, whether existing processes can cover all types of applications for permits, and whether all background information is readily available to analyze the applications. New

processes or objectives require approval of higher management or the agency with authority and accountability for the program or system.

Complexity -- The nature of, and need for, analysis and judgment is formulative, as described here. Positions evaluate the relevance and importance of physical science theories, environmental concepts, and principles in order to tailor them to develop a different approach or tactical plan to fit specific circumstances. As an example, positions adapt reclamation or remediation concepts to individual site circumstances in formulating a remedial action plan. While general policy, precedent, or non-specific practices exist, they are inadequate so they are relevant only through approximation or analogy. In conjunction with theories, concepts, and principles, positions use judgment and resourcefulness in tailoring the existing guidelines so they can be applied to particular circumstances and to deal with emergencies. For example, positions tailor existing test concepts to evaluate new alternative fuels for emission control purposes.

Line/Staff Authority -- The direct field of influence the work of a position has on the organization is as a unit supervisor or senior authority. The unit supervisor is accountable, including signature authority, for actions and decisions that directly impact the pay, status, and tenure of three or more full-time equivalent positions. At least one of the subordinate positions must be in the same series or at a comparable conceptual level. The elements of formal supervision must include providing documentation to support recommended corrective and disciplinary actions, signing performance plans and appraisals, and resolving informal grievances. Positions start the hiring process, interview applicants, and recommend hire, promotion, or transfer.

OR

The senior authority is a pacesetter who has a unique level of technical expertise in a field or profession that, as part of the assignment, is critical to the success of an agency. It is an essential component of the work assignment that has been delegated by management to the position. This authority directly influences management decisions beyond the agency. Managers and peers seek this level of technical guidance and direction as the designer of a statewide system or in a subject area for other areas of state government. Managers and peers, both internally and externally to the agency, rely on this pacesetter when making decisions regarding the direction that policy, programs, and systems should take in the pacesetter's field of expertise. An example is an authority on computer modeling of air pollution problems where managers and peers within and outside the agency rely on its counsel in developing solutions to environmental problems.

ENVIRONMENTAL PROTECTION SPECIALIST V

I3A6**

CONCEPT OF CLASS

This class describes the second-level supervisor or leading authority. In addition to work described by the lower classes in this series, positions in this level direct multiple units in carrying out the programs established by its agency. Leading authorities are required to exert direct influence beyond the state's boundaries in an environmental subject. This class differs from the Environmental Specialist IV class on the Decision Making and Line/Staff Authority factors.

FACTORS

Allocation must be based on meeting all of the three factors as described below.

Decision Making -- The decisions regularly made are at the interpretive level, as described here. Within limits of the strategic master plan and allocated human and fiscal resources, choices involve determining tactical plans to achieve the objectives established by the higher management (strategic) level. This involves establishing what processes will be done, developing the budget, and developing the staffing patterns and work units in order to deploy staff. For example, positions in this class determine the structure of sub-units, the manpower and budget required to meet competing demands between parts of a program, and set the work plans to meet program objectives. This level includes inventing and changing systems and guidelines that will be applied by others statewide. As an example, positions establish the permitting or regulatory processes used by units statewide. By nature, this is the first level where positions are not bound by processes and operations in their own programs as a framework for decision making and there are novel or unique situations that cause uncertainties that must be addressed at this level. As an example, positions decide how programs need to be changed to better enforce regulations established by boards or commissions. Through deliberate analysis and experience with these unique situations, the manager or expert determines the systems, guidelines, and programs for the future. For example, positions decide whether programs will have an educational component in addition to the regulatory nature of their program.

Complexity -- The nature of, and need for, analysis and judgment is formulative, as described here. Positions evaluate the relevance and importance of physical science theories, environmental concepts, and principles in order to tailor them to develop a different approach or tactical plan to fit specific circumstances. As an example, positions adapt reclamation or remediation concepts to individual site circumstances in formulating a remedial action plan. While general policy, precedent, or non-specific practices exist, they are inadequate so they are relevant only through approximation or analogy. In conjunction with theories, concepts, and principles, positions use judgment and resourcefulness in tailoring the existing guidelines so they can be applied to particular circumstances and to deal with emergencies. For example, positions may tailor existing test concepts to evaluate new alternative fuels for emission control purposes.

OR

The nature of, and need for, analysis and judgment is strategic, as described here. Positions develop guidelines to implement a program that maintains the agency's mission. Guidelines do not exist for most situations. In directive situations, positions use judgment and resourcefulness to interpret circumstances in a variety of situations and establish guidelines that direct how a departmental/agency program will be implemented. For example, such positions establish strategic operating plans for their program areas to cover multiple situations ranging from simple, localized waste cleanup projects to regional or multi-state efforts requiring interstate agreements and cooperative projects with active federal involvement.

Line/Staff Authority -- The direct field of influence the work of a position has on the organization is as a manager or leading authority. The manager must be accountable for multiple units through the direct supervision of at least two subordinate Unit Supervisors; and, have signature authority for actions and decisions that directly impact pay, status, and tenure. Elements of formal supervision must include providing documentation to support recommended corrective and disciplinary actions, second-level signature on performance plans and appraisals, and resolving informal grievances. Positions start the hiring process, interview applicants, and recommend hire, promotion, or transfer.

OR

The leading authority is a pacesetter who has a rare level of technical expertise in a field or profession that, as part of the assignment, is critical to the success of an agency. It is an essential component of the work assignment that has been delegated by management to the position. This authority directly influences management decisions and peers in the profession outside of state government. Managers and peers beyond state government recognize and seek this level of technical guidance and direction because of the recognized expertise in a subject area. For example, program managers and colleagues in other states rely on this regional or national pacesetter when making decisions regarding the direction of their policy, programs, and systems in the pacesetter's field of expertise. This reliance on, and delegation of, primary responsibility for influencing management direction, including representing the state regionally or nationally, separates this level of staff authority from all others. An example of such authority might be the technical expert on emission control devices that manufacturers and other states' or federal scientists rely on for advice on controlling emissions.

DEFINITIONS

Air quality specialty area: work involving the prevention or control of pollutants, contaminants, or particulate in the air from mobile or stationary emission sources in order to improve air quality.

Consumer protection specialty area: work related to the control of product and sanitation factors for the optimum health, comfort, or safety of the public in such areas as child care, food and drugs, accommodations, fraud, and product safety.

Land resources specialty area: work related to minimizing the impacts to land, soil, rocks, water, and vegetation resources by the control of pollutants or contaminants and the reclamation of these resources to a productive state.

Health physics specialty area: work related to the detection, control, and prevention of radiologic hazards to the public.

Waste management specialty area: work related to the prevention, control, or remediation of pollution or contamination related to the generation, transportation, treatment, disposal, or recycling of wastes, or mining industries whose by-products may be harmful to either human health or the environment.

Water quality specialty area: work related to preservation, control, and remediation of water pollution sources for the purpose of protecting the public and the quality of surface and ground waters.

Generalists specialty area: work of environmental protection nature not described in any of the other specialty areas.

Physical science: those sciences related to the composition, structure, or properties of physical matter or energy in such disciplines as chemistry, geology, hydrology, astronomy, meteorology, or physics.

Media: concerned with the chemical and physical form of air, water, or land resources that carry, transmit, hold, or dissipate pollutants, pathogens, or hazards to human health and the environment.

Environmental program: the formalized work of a state agency for the purposes of evaluating, regulating, controlling, mitigating, remediating or preventing pollution of air, land, or water of the state.

ENTRANCE REQUIREMENTS

Minimum entry requirements and general competencies for classes in this series are contained in the State of Colorado Department of Personnel & Administration web site.

For purposes of the Americans with Disabilities Act, the essential functions of specific positions are identified in the position description questionnaires and job analyses.

CLASS SERIES HISTORY

Updated and removed the purpose of contact 6.30.2015

Effective 7/1/08 (TMM). PSE System Maintenance Study. No changes. Published as proposed 7/31/07.

Effective 7/1/02 (DLF). PSE System Maintenance Study. No changes. Published as proposed 5/15/02.

Effective 12/15/94 (DLF). Published as proposed 10/31/04.

Effective 9/1/93 (DLF). Job Evaluation System Revision project. Published as proposed 6/1/93 (DLF).

Revised 7/1/88. Changed class codes, titles, grades, nature of work, and entrance requirements, Consumer Health Protection Specialist (A5945-49).

Created 7/1/88. Supervising Consumer Health Protection Specialist (A5951).

Revised 7/1/85. Changed nature of work and entrance requirements, Health Physicist (A3420-22, 24,25).

Created 7/1/85. Senior Health Physicist (A3423).

Revised 7/1/84. Changed class codes, titles, grades and relationships, Consumer Health Protection Specialist (A5945-47).

Revised 7/1/84. Changed nature of work and entrance requirements, Air Pollution Control Specialist (A3461-65).

Created 7/1/84. Principal Air Pollution Control Specialist (A3460).

Revised 7/1/83. Changed grades and relationships, Mined Land Reclamation Specialist (A7250-52).

Revised 7/1/81. Changed nature of work and entrance requirements Supervising Health Physicist (A3425), also changed grades and relationships, Mined Land Reclamation Specialist (A7250-56).

Revised 5/1/80. Changed options and entrance requirements, Consumer Health Protection Specialist (A5945-48).

Revised 9/1/78. Changed nature of work, class codes, titles, and entrance requirements, Mined Land Reclamation Specialist (A7252,56).

Created 9/1/78. Mined Land Reclamation Specialist (A7250,51,54).

Revised 11/1/77. Changed entrance requirements, Consumer Health Protection Specialist (A5945-48).

Revised 4/1/76. Deleted substitution, Health Physicist (A3420-22).

Revised 12/1/75. Changed entrance requirements, added C range, Health Physicist (A3420-22). Created 1/1/75. Health Physicist (A3420-22,24,25), Air Pollution Control Specialist (A3460-65), Consumer Health Protection Specialist (A5945-49), Mined Land Reclamation Specialist (A7252,56).

SUMMARY OF FACTOR RATINGS

Class Level	Decision Making	Complexity	Line/Staff Authority
Environmental Protect Intern	na	Na	na
Environmental Protect Spec I	Operational	Patterned	Indiv. Contributor
Environmental Protect Spec II	Operational or Process	Patterned or Formulative	Indiv. Contributor
Environmental Protect Spec III	Process	Formulative	Work Leader or Staff Authority
Environmental Protect Spec IV	Process	Formulative	Unit Supervisor or Senior Authority
Environmental Protect Spec V	Interpretive	Formulative or Strategic	Manager or Leading Authority

ISSUING AUTHORITY: Colorado Department of Personnel & Administration