

Hazardous Materials Specialist Series

California State Personnel Board Specification

Series established July 29, 1986

Scope

The classes in this series are used to perform a broad range of staff work concerning present and future programs related to promoting the proper management of hazardous materials and hazardous waste, a safe work area, and protecting the environment. specification describes four levels in the hazardous materials management field.

Hazardous Materials Specialist Series Specification - Class Titles and Codes

Schem Code	Class Code	Class
BH94	3529	Hazardous Materials Specialist
BH93	3528	Associate Hazardous Materials Specialist
BH92	3527	Senior Hazardous Materials Specialist (Technical)
BH91	3526	Senior Hazardous Materials Specialist (Supervisory)

Definition of Series-Classification

The Hazardous Materials Specialist series describes a broad range of staff and management work concerned with the discovery, regulation, and remediation of hazardous materials, and development of scientific methodologies for environmental and chemical assessments, resource recovery, waste reduction, and other alternatives to land and water disposal of hazardous materials. Incumbents at all four levels apply scientific methods and principles in the performance or supervision of assigned tasks, including: identification and analysis of hazardous materials; development of criteria and guidelines for the handling of hazardous materials; issuance of permits to hazardous substance treatment, storage, and disposal facilities; regulation of hazardous material generators, transporters, and storage, treatment, and disposal operators; surveillance of the regulated community through onsite inspection, sampling, and record reviews to secure or verify information regarding compliance with hazardous materials laws and regulations; enforcement of hazardous material and related laws; discovery of abandoned hazardous material disposal sites; evaluation and ranking of sites in relative order of the risk to the public health and the environment; assessment of chemical and other data obtained to determine levels of contamination, site conditions, and land use factors; environmental surveys and studies related to hazardous material transport, storage, disposal, reduction, and reuse; research and development of innovative programs to address emerging problems related to hazardous materials management; establishment of clean up levels for air, water, and soil contamination by hazardous substance; determination of appropriate sampling and monitoring methods; development and assessments of alternatives for mitigation of the hazards to the public and environment; development of endangerment assessments; participation in feasibility studies and remedial action plans to either remove the hazardous material or to render it nonhazardous to future populations; development, as part of an interdisciplinary team, of legislation, regulations, policies, procedures, alternative technologies, and practices associated with hazardous materials management; consultation, highly sensitive liaison and organizational work that requires interaction between citizens, business, local, and other governmental agencies on controversial aspects of hazardous material control activities; provision of testimony in legal or administrative hearings; and collection of data and preparation of related correspondence, scientific articles, and reports.

Incumbents may consult with engineers on staff regarding engineering elements of assigned responsibilities. Incumbents may be consulted by engineers on scientific issues (i.e., biology, chemistry, and public health). In some instances the incumbent reviews, evaluates, and oversees performance of work elements by contractors and other local, State, or Federal agencies. Incumbents are also responsible for assessing potential exposure to hazardous materials and selecting appropriate safety and sampling equipment.

Entry into the series is typically at the Hazardous Materials Specialist level.

This class includes an entry, intermediate, journey and advanced class levels. Performs work in connection with proper management of hazardous and toxic materials/waste; conducts hazardous material/waste inspections of work areas; investigates complaints of unsafe hazardous material/waste work environments, and recommend and implement corrective actions; provides consultation and assistance on hazardous materials/waste generation to institution work areas; ensure proper storage and management of hazardous materials/waste; research problems and issues associated with the proper management of hazardous materials/waste; maintain and update facilities/institutions Emergency/Contingency Plans, and Hazardous Material/Waste Management Plans and Hazard Communication Plan; ensures the institution/facility has the proper permits for hazardous waste generation including storage and disposal operations; provides training in methods and techniques to ensure compliance with hazardous materials/waste standards; trains, directs, and reviews the inmate/youthful offender workers handling hazardous materials/waste; provide in-service training to staff and provides training for the institution/facility's Hazardous Materials Emergency Response Team; responds to hazardous material/waste spills and releases; works with licensed, registered and insured hazardous waste transporters; prepares reports and correspondence; prepare cost/benefit analysis on resource recovery and hazardous waste reduction; monitor changes in laws, regulations and/or policies; may act as lead person in connection with regulatory reviews, studies or special projects; and performs other related work.

Individuals in this class are hazardous materials/waste management specialists professionals who have expertise and/or strong specialization in one or more phases of environmental, chemical, or biological sciences, or public health factors, effects, and as well as an understanding of the use of machineries/equipment employed in the of various technologies to mitigate control of industrial processes related to hazardous materials/wastes measures in the area of engineering and mechanical control operations and industrial processes encountered in work places.

Positions in an institution/facility of the Department of Corrections and Rehabilitation this series may instruct, lead or supervise inmates or wards/youthful offenders; residents or patients of the California Department of Corrections and Rehabilitation or Department of State Hospitals; prevent escapes and injury by these persons to themselves or others or to property; maintain security of working areas and work materials; inspect premises and search inmates/youthful offenders for contraband, such as weapons or illegal drugs. These classifications are subject to safety retirement.

Entry Level

Entry to into the this class series is at one of the alternate ranges of the Hazardous Materials Specialist level depending on education, experience, and qualifications of the individual.

Factors Affecting Position Allocation

Level, variety, and complexity of work; nature of public and interagency contact; independence of action; consequence of error; degree of originality and initiative required; degree of scientific knowledge and specialized abilities required; degree to which decisions are sought and accepted by top management; extent of impact on statewide programs; and degree of supervision exercised or received; and degree of management responsibility.

Definition of Levels

Hazardous Materials Specialist

This is the entry, training, and first working intermediate, and full journey level of the series. Under close supervision, as a trainee, incumbents learn the less responsible, professional work associated with the discovery, regulation, or remediation of hazardous materials. Work products are closely reviewed by supervisors. As the first working level, under general supervision, incumbents assist in responsible, professional work of average difficulty that is characterized by reliance on proven techniques and methodologies. Positions may be permanently allocated at this level when the major functions do not include the complete range of the more responsible, varied, and difficult assignments. Examples include development of less complex procedures and guidelines for hazardous materials handling, discovery and preliminary assessment of hazardous material sites, regulation of hazardous material generators and transporters, evaluation of less complex permit applications and regulatory inspections of simple storage, generation and treatment facilities, etc.

Associate Hazardous Materials Specialist

This is the full journey level of the series. Under direction, incumbents independently perform the full range of the more responsible, varied, and complex work associated with the evaluation, management, and regulation of hazardous materials. Incumbents perform complex scientific evaluations of facility permit applications, environmental data, chemical contamination data, remedial action plans, compliance with permit conditions, and other regulatory requirements. Incumbents may also be assigned responsibility for modification or application of complex scientific models in evaluating portions of the work described above. In a headquarters setting, incumbents may also be assigned responsibility for development of the more difficult regulations, policies, and procedures. This level may also be assigned lead responsibility over other first working and journey level Hazardous Materials Specialists.

Range A is the entry and first working level of the class. Under close supervision, incumbents perform a variety of the less difficult and responsible hazardous materials duties. In accordance with detailed instructions and specific standards, incumbents oversee the proper management of hazardous materials and hazardous wastes, including the identification and analysis of hazardous materials and wastes; maintain the Material Safety Data Sheets (MSDS) and Safety Data Sheets (SDS); implement established criteria and guidelines for handling hazardous materials and wastes; oversight and onsite inspection of hazardous material storage and waste collection locations; management of hazardous waste contractors and hazardous material and waste transporters.

Range B is the intermediate working level of the class. Under general supervision, incumbents perform the proper implementation of correct procedures including following the Hazard Communication Program; maintain and update facility Emergency/Contingency Plans and Hazardous Material/Waste Management Plans; apply the correct use of Personal Protective Equipment (PPE); the identification of hazards in the work place; provide appropriate training for staff and inmates/youthful offenders; and maintain programs' records.

Range C is the journey level of the class. Under general direction, incumbents implement techniques for environmental and chemical assessments, such as sampling to assess chemical and other data to determine levels of contamination, site conditions, and other factors; follow guidelines for the determination of established regulatory threshold and bench-mark level requirements; coordinate hazardous material/waste practice related to land, water and air pollution, and waste with other public agencies; follow appropriate sampling and monitoring methods; train staff inmate-youthful offenders workers; develop assessments and alternatives for the mitigation of hazardous materials to staff, inmates, youthful offenders; advise management of changes in laws, regulations and/or policies and the impact to the institution/facility; and follow technical procedures for the identification and remediation of hazardous materials.

Senior Hazardous Materials Specialist (Technical)

This is the advanced journey staff specialist level working in headquarters to provide oversight and guidance to facilities. Incumbents responsible for independently identify problems, develop courses of action, and comply with environmental health-related laws and regulations; apply scientific methods and principles in the identification, research, and solution of problems in the areas of hazardous

materials management, environmental monitoring, or waste classification; conducting extremely the most complex and difficult scientific evaluations, investigations, or studies usually dealing with emerging hazardous material control technologies, or related undefined issues or problems involving intense conflict between consumer and special interest group concerns; local, State, and Federal Government concerns; and business interests and costs. In a regional setting, incumbents will be responsible for the most complex and sensitive scientific issues for the entire region. In a headquarters setting, incumbents will be assigned statewide responsibility for development of scientific protocol, research studies, and related programs. In both settings, incumbents may act as a lead persons on assigned projects, studies, or and manage and oversee emergency response efforts, task forces. At this level, incumbents consult with and advise other agencies and facilities engaged in related environmental analysis, management, planning, regulation, investigation, and research; meet with regulatory agencies to comply with requirements; provide consultation to management; may develop and train staff and others in the facilities; [What are we training them on?] inspect facilities and regulated areas; prepare cost/benefit analysis on resource recovery and hazardous waste reduction for executive staff review; and prepare reports and correspondence.

incumbents are responsible for a wide variety of highly technical assignments such as conducting endangerment assessments of imminent and substantial threats to the public health or the environment; developing scientific models for environmental fate assessments and other highly complex scientific evaluation processes/protocols; investigation and development of scientific methodologies for resource recovery, waste reduction, and other alternative technologies and practices. Positions may also be assigned responsibility for program, policy, regulation, and legislation development in major program areas requiring scientific expertise above the full journey level.

Senior Hazardous Materials Specialist (Supervisory)

This is the first full supervisory level in the series. Incumbents are responsible for planning, organizing, directing, and evaluating professional and technical staff (typically 5-9) in a small unit within a section or region.

Minimum Qualifications

All Levels

Education: Possession of a bachelor's degree with a major in a biological, chemical, physical, or environmental science, environmental or public health, or a closely related scientific discipline from an accredited college or university. (Admission to a masters or doctoral degree program in a biological, chemical, physical, or environmental science, environmental or public health, or a closely related scientific discipline shall be considered to meet these education qualifications.) Registration as a senior in a recognized institution will admit applicants to the examination, but they must produce evidence of graduation or its equivalent before they can be considered eligible for appointment.

Additional qualifying experience in hazardous materials management, regulation, analysis, or research; environmental research, monitoring surveillance; or enforcement, or resource recovery may be substituted for the required education on the basis of one year of qualifying experience for each year of college work for up to a maximum of two years; when substituting experience for education, qualifying education must include a minimum of 30 semester units or 45 quarter units of science courses from an accredited college.

Hazardous Materials Specialist

Education: Equivalent to graduation from an accredited college or university or equivalent degree approved by the Bureau for Private Postsecondary and Vocational Education under the provisions of California Education Code Chapter 3, Part 59, Division 10, with major work in biological, chemical, physical, environmental, or soil science; environmental health; environmental or sanitary engineering; toxicology; industrial hygiene or a related field. (Registration as a senior in a recognized institution will admit applicants to the examination, but they must produce evidence of graduation or its equivalent

before they can be considered eligible for appointment. Additional qualifying experience in hazardous materials management, regulation, analysis, or research; environmental research, monitoring, surveillance, or enforcement; or resource recovery may be substituted for the required education on the basis of one year of qualifying experience for each year of college work for up to a maximum of two years. When substituting experience for education, qualifying education must include a minimum of 30 semester units in natural science from an accredited college or equivalent units from an institution approved by the Bureau for Private Postsecondary and 3, Part 59, Division 10.)

Associate Hazardous Materials Specialist

EITHER I

Two years of experience in the California state service performing hazardous materials management duties at a level of responsibility not less than a Hazardous Materials Specialist, Range B.

OR II

Education: Equivalent to graduation from an accredited college or university or equivalent degree approved by the Bureau for Private Postsecondary and Vocational Education under the provisions of California Education Code Chapter 3, Part 59, Division 10, with major work in biological, chemical, physical, environmental, or soil science; environmental health; environmental or sanitary engineering; toxicology; industrial hygiene or a related field. (Additional qualifying experience in hazardous materials management, regulation, analysis, or research; environmental research, monitoring, surveillance, or enforcement; or resource recovery may be substituted for the required education on the basis of one year of qualifying experience for each year of college work for up to a maximum of two years. When substituting experience for education, qualifying education must include a minimum of 30 semester units in natural science from an accredited college or equivalent units from an institution approved by the Bureau for Private Postsecondary and 3, Part 59, Division 10.) and

Experience: Three years of progressively responsible professional experience in hazardous materials management, regulation, analysis, or research; environmental research, monitoring, surveillance, or enforcement; or resource recovery. Two years of this experience must have included responsibility for a major segment of a broad and complex chemical, environmental, or hazardous material control program. This experience must be at a level equivalent to that of a Hazardous Materials Specialist, Range B, in the California state service.

(Possession of a master's degree in the areas specified above may be substituted for one year of the required experience. Possession of a doctorate in the areas specified above may be substituted for two years of the required experience. Candidates who are in their final semester or quarter in either degree program may be admitted to the examination if otherwise qualified, but they must receive the degree before they can be appointed.)

Senior Hazardous Materials Specialist (Technical)

EITHER I

Two years of experience in the California state service performing hazardous materials management duties at a level of responsibility not less than an Associate Hazardous Materials Specialist, Range C.

OR II

Education: Equivalent to graduation from an accredited college or university or equivalent degree approved by the Bureau for Private Postsecondary and Vocational Education under the provisions of California Education Code Chapter 3, Part 59, Division 10, with major work in biological, chemical, physical, environmental, or soil science; environmental health; environmental or sanitary engineering; toxicology; industrial hygiene or a related field. (Additional qualifying experience in hazardous materials management, regulation, analysis, or research; environmental research, monitoring,

surveillance, or enforcement; or resource recovery may be substituted for the required education on the basis of one year of qualifying experience for each year of college work for up to a maximum of two years. When substituting experience for education, qualifying education must include a minimum of 30 semester units in natural science from an accredited college or equivalent units from an institution approved by the Bureau for Private Postsecondary and 3, Part 59, Division 10.) and Experience: Five years of increasingly responsible professional experience in hazardous materials management, regulation, analysis, or research; environmental research, monitoring, surveillance, or enforcement; or resource recovery. This work must have been at a level equivalent to that of an Associate Hazardous Materials Specialist, Range C. Two years of this experience must have included responsibility as a technical expert, developing complex studies related to hazardous materials or environmental health analysis, research, management, enforcement, or a closely related field. (Possession of a master's degree in the areas specified above may be substituted for one year of the general experience. Possession of a doctorate in the areas specified above may be substituted for two years of the general experience. Candidates who are in their final semester or quarter of either degree program may be admitted to the examination if otherwise qualified, but they must receive the degree before they can be appointed.)

Senior Hazardous Materials Specialist (Supervisory)

EITHER I

Two years of experience in the California state service performing hazardous materials management duties at a level of responsibility not less than an Associate Hazardous Materials Specialist.

OR II

Education: Equivalent to graduation from an accredited college or university or equivalent degree approved by the Bureau for Private Postsecondary and Vocational Education under the provisions of California Education Code Chapter 3, Part 59, Division 10, with major work in biological, chemical, physical, environmental, or soil science; environmental health; environmental or sanitary engineering; toxicology; industrial hygiene or a related field. (Additional qualifying experience in hazardous materials management, regulation, analysis, or research; environmental research, monitoring, surveillance, or enforcement; or one year of qualifying experience for each year of college work for up to a maximum of two years. When substituting experience for education, qualifying education must include a minimum of 30 semester units in natural science from an accredited college or equivalent units from an institution approved by the Bureau for Private Postsecondary and 3, Part 59, Division 10.) and

Experience: Five years of increasingly responsible professional experience in hazardous materials management, regulation, analysis, or research; environmental research, monitoring, surveillance, or enforcement; or resource recovery. This work must have been at a level equivalent to that of an Associate Hazardous Materials Specialist. Two years of this experience must have been in a (1) lead or supervisory capacity, or (2) included responsibility as a technical expert, developing complex studies related to hazardous materials or environmental health analysis, research, management enforcement, or a closely related field.

(Possession of a master's degree in the areas specified above may be substituted for one year of the general experience. Possession of a doctorate in the areas specified above may be substituted for two years of the general experience. Candidates who are in their final semester or quarter of either degree program may be admitted to the examination if otherwise qualified, but they must receive the degree before they can be appointed.)

Knowledge and Abilities

Hazardous Materials Specialist

Knowledge of: Basic principles of scientific research; knowledge of chemical, biological, physical, and environmental science; chemical and physical characteristics of hazardous materials and their general

effect on human health and the environment; chemical reactions; and effect of hazardous materials and their interactions on the environment and statistical methods of analysis.
Ability to: Collect environmental data; analyze and evaluate data and reach sound conclusions; apply scientific methods and principles; analyze situations and take appropriate actions; establish and maintain cooperative relations with local governments and all persons contacted in the work; prepare clear, complete, and technically accurate reports; and communicate effectively.

Associate Hazardous Materials Specialist

Knowledge of: All of the above, and principles and procedures of hazardous materials management and resource recovery, including basic toxicology, hydrology, and geology; water, soil and air quality management, and environmental planning; investigatory methods; hazardous materials management activities and programs in both the public and private sectors; research and literature on the health effects of hazardous substances used in California industry. California's hazardous waste stream characteristics and mitigation measures; Federal, State, and local statutes, regulations, legislative, and regulatory processes, programs, and responsibilities related to hazardous materials; methods of transport, storage, recovery, treatment, destruction, disposal, and use of hazardous materials; hazardous facility permitting process including State and Federal requirements for environmental review; concepts employed in a variety of disciplines including economics, public health, and resource management as specifically related to hazardous materials management programs; and principles involved in siting hazardous waste facilities and for controlling hazardous substances.

Ability to: All of the above, and plan, organize, and carry out hazardous materials studies or projects; coordinate the work of others; make oral presentations, evaluate scientific data, and develop and prepare recommendations based on findings; be objective and flexible; meet critical deadlines; apply or modify complex scientific methods and principles; understand principles of risk assessments and risk management; work with professionals from a variety of disciplines within and outside of State Government on complex and changing hazardous substance issues related to the achievement of departmental goals; read and understand technical research reports on emerging public health issues related to the use of hazardous substances; assess the impact of proposed legislation and new statutes; organize materials for public presentation and dissemination; anticipate and respond to public concerns with tact and sensitivity.

Knowledge of: Principles and development of criteria and guidelines of hazardous material/waste management; oversight of inspection of hazardous material/waste generator locations and areas; management of hazardous material/waste contractors; management of hazardous material/waste transporters; principles of hazardous material/waste reduction, reuse, recycling, substitution, and prevention; statistical methods; chemical reactions; management practices concerning safety practices relating to human health, the environment, and property; effects of hazardous material/waste, and hazardous substances, and their interactions on the environment; California and Federal environmental laws, rules, and regulations; basic toxicology, hydrology, geology and principles of risk assessment and risk management; concepts employed in a variety of disciplines including environmental planning, managing contracts and program budget, and resource management; developing resource conservation program impacts and implementation strategies; review and resource recovery issues.

Ability to: Apply or modify scientific methods and principles; collect environmental data; analyze and evaluate data and reach sound conclusions; review, check, and interpret scientific and environmental reports; analyze situations and take appropriate actions; establish and maintain cooperative relations; communicate effectively; prepare clear, complete, and technically accurate reports; apply laws, rules, regulations, policies, and requirements of environmental protection and resource management programs; assess the impact of proposed environmental legislation and regulations; understand principles of risk assessment and risk management; work with professionals from a variety of disciplines within and outside of State government; and review and understand technical research reports on emerging public health and environmental issues.

Senior Hazardous Materials Specialist (Technical)

Knowledge of: All of the above, and ~~major hazardous substances used in California industry including trends in use patterns; health problems specific to particular industries; California's hazardous waste stream characteristics including current and future hazardous materials management options; emerging health problems associated with the use of hazardous materials in other states and overseas; success and failure of different methods employed in siting hazardous waste facilities and controlling potential contaminations; programs and mechanisms for managing hazardous materials including new and innovative programs; toxic properties of commercial chemicals; strategies for control and allocation of liabilities; sophisticated scientific research techniques, including the planning of studies and investigations, determination of variables and development of reference materials, and research reporting techniques.~~

Ability to: Prepare project plans; ~~design complex scientific methods, studies, procedures, guidelines, and research projects; develop techniques for handling a large variety of detailed data and analyze these data; communicate the results and implications of studies to non-specialists; do unusual and difficult research and analytical work; exercise initiative in anticipating complex and controversial new issues in hazardous material management and control and recommend development of programs to address such issues; work quickly in an unsupervised environment to provide research and/or high level scientific evaluations on short-term and highly controversial and complex projects concerning public health and environmental protection; coordinate and chair interagency task forces and meetings related to hazardous materials; and develop new hazardous material control methodologies and procedures to the point where they can be implemented by other sections.~~

Senior Hazardous Materials Specialist (Supervisory)

Knowledge of: All of the above, and ~~principles of program management and personnel administration; a managers/supervisors responsibility for promoting equal opportunity in hiring and employee development and promotion, and for maintaining a work environment that is free of discrimination and harassment; methods and techniques of effective leadership; and California's legislative, budget, and general administrative processes.~~

Ability to: All of the above, and ~~interpret, apply, and develop policy proposals and procedures; plan, organize, and direct the work of others; provide leadership in accomplishing basic functions and objectives; participate in assigned programs effectively with groups and agencies to gain cooperation in hazardous materials and environmental management; evaluate and project environmental data and direct the preparation of comprehensive studies, projects, and resultant reports; and effectively promote equal opportunity in employment and maintain a work environment that is free of discrimination and harassment.~~

Class History

Hazardous Materials Specialist Series History - Dates Established, Revised, and Title Changed

Class	Date Established	Date Revised	Title Changed
Hazardous Materials Specialist	07/29/1986	Xx/xx/xx	--
Associate Hazardous Materials Specialist	07/29/1986	Xx/xx/xx	--
Senior Hazardous Materials Specialist (Technical)	07/29/1986	Xx/xx/xx	--
Senior Hazardous Materials Specialist (Supervisory)	07/29/1986	Xx/xx/xx	--

Alternate Range Criteria

This criteria will be used to allocate incumbents to Alternate Range A or Range

~~B.~~

Range A. This range shall apply to incumbents who do not meet the criteria for payment in Range B.
Range B. This range shall apply to persons who have satisfactorily completed (1) one year in the California state service performing the duties of a Hazardous Materials Specialist, Range A; or (2) two years of professional experience in hazardous materials management, regulation, analysis, or research; environmental research, monitoring, surveillance, or enforcement; or resource recovery. (Professional experience is defined as experience equivalent to Hazardous Materials Specialist, Range A, gained after meeting the Minimum Qualifications for entry into the Hazardous Materials Specialist class.) (A Master's Degree in Biological, Chemical, Physical, Environmental, or Soil Science; Environmental Health; Environmental or Sanitary Engineering; Toxicology; Industrial Hygiene, or a related field may be substituted for the required experience.)
When the requirements for movement to Range B are met and upon recommendation of the appointing power, the employee shall receive the rate in Range B, under provisions of Department of Personnel Administration Rule 599.676.

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