

POSITION CLASSIFICATION STANDARD FOR Safety and Occupational Health Management Series, GS-0018

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SERIES DEFINITION

This series includes positions that involve the management, administration, or operation of a safety and occupational health program or performance of administrative work concerned with safety and occupational health activities and includes the development, implementation, and evaluation of related program functions. The primary objective of this work is the elimination or minimization of human injury and property and productivity losses, caused by harmful contact incidents, through the design of effective management policies, programs, or practices. Safety and occupational health management work requires application of the knowledge of: (a) the principles, standards, and techniques of safety and occupational health management; and (b) pertinent elements of engineering, physical science, ergonomics, psychology, industrial hygiene, physiology, sociology, and other scientific and technological fields which contribute to the achievement of comprehensive safety and occupational health objectives.

This standard supersedes and is to be substituted for the series coverage and position classification standard (Part I and Part II) for the Safety Management Series, GS-0018, issued in June 1971.

SERIES COVERAGE

The enactment of occupational safety legislation since 1970 has changed the extent to which many methods and techniques are applied by safety and occupational health managers and specialists. The field of safety and occupational health has been expanded beyond applying established standards and codes, investigating mishaps, and correcting unsafe acts and conditions. Contemporary safety and occupational health methodology increasingly requires an analytical approach to determine and devise measures to control or eliminate environmental hazards and reduce errors in human performance. For example, optimum integration of safety and occupational health elements in operational programs may require appraisal of various system components at the planning, design, development, test, installation, and implementation stages.

The issuance of Executive Order 12196 has required greater agency efforts in the achievement of sound safety and occupational health innovations and the formulation of safety and occupational health plans and programs with predictable consequences to effect safe utilization of human and material resources.

Safety and occupational health activities carried out by Federal departments and agencies include the following:

- the construction of an effective comprehensive plan for safety and occupational health consistent with agency missions and supported by management with needed personnel and resources; this requires the development of policy and procedural guidelines for safety and occupational health, the design and implementation of a safety and occupational health

organizational structure that enables the attainment of desired program goal, and development of systems to identify cost savings and other benefits of a strong, effective safety and occupational health program; and the planning, organizing, and control of a safety and occupational health program through the application of sound management principles and concepts;

- formulating and executing national policy, programs and priorities for assuring safe and occupational healthful working conditions in the private and public sectors;
- establishing and enforcing occupational safety and health standards by direct Federal enforcement; encouraging, assisting, and monitoring states in developing and operating programs to assure safe and occupational healthful working conditions through grant incentives; and encouraging labor and management efforts to reduce occupational injuries and diseases arising out of employment through training and educational grants;
- the achievement of compliance with the intent of safety and occupational health legislation and related standards, orders, rules, and regulations; safety and occupational health managers identify and where possible, contribute to proposed legislation;
- the identification and implementation of adjustments needed in purchase, storage, process, alteration, repair, and salvage operations to assure the inclusion of countermeasures for potential accident and illness related losses; this necessitates continuous cooperation with the program managers responsible for functions such as personnel, supply, engineering, maintenance, budgeting, and medical services.
- the determination of employee and supervisor training and education resources to reduce or eliminate potential accident related loss and the establishment of procedures to accomplish this objective; this requires the analysis of accident and illness data, applicable legislation, and job hazards to design appropriate education activities; safety and occupational health managers frequently work with personnel management specialists to review employee training requirements and to provide appropriate courses and seminars;
- the compensation of human factors that may have undesirable influences on the achievement of safety and occupational health objectives; safety and occupational health managers cooperate with other occupational specialists to assist employees with physical and social difficulties to successfully adjust to working conditions and practices;
- the development and periodic implementation of disaster preparedness plans to assure the availability of emergency care services; this requires the development of internal and external response plans, procedural manuals, employee education, and the planning and monitoring of drills;
- the assessment, regulation, and preservation of environmental conditions to minimize adverse effects on the safety and occupational health of individuals; inspection of the work area is necessary to identify and eliminate unsafe and unhealthy environmental conditions

and to determine compliance with Federal safety and occupational health standards; the establishment of a comprehensive inspection program (including formal, special, and incidental inspections) that provides a continuing flow of environmental information;

- the analysis of individual and machine performed activities for accident related loss potential; safety and occupational health managers analyze work tasks to determine existing or potentially hazardous situations;
- the improvement of surveillance and monitoring techniques related to hazard control and loss minimization; such techniques include isolation, guarding, and personal use of protective equipment;
- the development and utilization of procedures for measuring, reporting, evaluating, and researching safety and occupational health data; safety and occupational health managers prepare plans, schedules, and forms for collecting required data;
- the formulation and utilization of techniques for determining the effectiveness of safety and occupational health effort on a continuing basis; this requires the development of an evaluation program and objective criteria to measure the degree of achievement of safety and occupational health goals.

EXCLUSIONS

Excluded from this series are the following classes of positions:

1. Positions requiring professional knowledge of the principles, methods, and techniques of engineering to eliminate or control hazardous conditions related to or resulting from human, equipment, and machine performance. These are classified in the [Safety Engineering Series, GS-0803](#). Professional safety engineering positions are characterized by duties such as: (a) developing safety engineering standards that establish tolerances, stress ratios, strength of materials, and other similar engineering requirements; and (b) evaluating the engineering adequacy of proposed designs, methods, and procedures. This work requires the application of a knowledge of basic scientific principles including higher mathematics, physics, chemistry, and engineering methods and techniques such as can be gained through training equivalent to that represented by the completion of a full four-year curriculum leading to a bachelor's degree in engineering. (See [Introduction to Engineering and Architecture Group, GS-0800](#).)
2. Positions concerned with specialized safety work for which specific occupations have been established. Such positions are classified in the appropriate subject matter series, e.g., [Fire Protection and Prevention Series, GS-0081](#); [Consumer Safety Series, GS-0696](#); [Air Investigating Series, GS-1815](#); [Mine Safety and Health Series, GS-1822](#); [Aviation Safety Series, GS-1825](#); [Consumer Safety Inspection Series, GS-1862](#); [Railroad Safety Series, GS-2121](#); and [Highway Safety Series, GS-2125](#).

3. Professional and scientific work involving the identification and evaluation of conditions affecting the health and efficiency of employees, or the citizens of the adjacent community, the formulation and recommendation of measures to eliminate or control occupational health hazards, and the promotion of occupational health programs for instructing and motivating managers and employees in the prevention as well as correction of potential health hazards. These positions are classified in the [Industrial Hygiene Series, GS-0690](#).
4. Positions involving the protection of humans and the surrounding environment from undesired exposure to ionizing radiation and that require application of professional knowledge and competence in health physics. Such positions are classified in the [Health Physics Series, GS-1306](#).
5. Positions involving support work in mishap prevention including inspecting safety conditions, investigating and compiling data on mishaps, and providing information on safety standards and techniques. This work requires a practical knowledge of work processes and equipment, safety standards, and mishap prevention measures and is classified in the [Safety Technician Series, GS-0019](#).
6. Positions involving investigating, evaluating and providing information on sanitation practices, techniques and methods for the purpose of identifying, preventing, and eliminating environmental health hazards. Positions in this occupation require a practical knowledge of basic environmental health concepts, principles and methods, including surveys and inspection techniques and control and eradication methods. Such positions are classified in the [Environmental Health Technician Series, GS-0698](#).
7. Positions requiring full competence in a branch or field of engineering such as fire protection, nuclear, mining, electrical, chemical, civil, or aerospace engineering. Such positions are classified in the appropriate professional engineering series. Many professional engineering positions involve a considerable concern with safety.

TITLES

The following are authorized titles:

Safety and Occupational Health Manager is the title for positions responsible for planning, organizing, directing, operating and evaluating a safety and occupational health program for an entire agency or subordinate level such as a bureau, command, regional or district office or installation. A manager may or may not supervise a subordinate staff. All positions at the GS-13, 14, or 15 grade levels are title Safety and Occupational Health Manager. The GS-11 grade level is recognized in this standard as the minimum grade level at which a position has sufficient program scope and functional depth to be evaluated and titled as a Safety and Occupational Health Manager. (See the [GS-0690, Industrial Hygiene Series](#) for a definition of the title "Industrial Hygiene and Safety Manager".) Also see [Occupational Information](#), page ten.

Safety and Occupational Health Specialist is the title for nonsupervisory positions at the GS-12 grade level or below assigned a number of program elements such as inspection, evaluation, training, or responsibility for providing administrative and technical services to management representatives and employees.

The title *Supervisory Safety and Occupational Health Specialist* is the title for positions which meet or exceed the criteria of the [General Schedule Supervisory Guide](#) for evaluation as a supervisor.

Specializations have not been established for this series. The recognition of specializations would fragmentize the occupation and provide little substantive benefit in the recruitment of candidates. Where a position requires specialized knowledge, skills or abilities such as system analysis, selective placement of candidates meeting this essential qualification is appropriate.

OCCUPATIONAL KNOWLEDGE AND SKILLS REQUIRED

Safety and occupational health work in the Federal service involves the application of recognized principles, standards, and techniques in a broad variety of organizational settings including public and private sector offices, field locations, laboratories, manufacturing enterprises, and storage facilities.

Although positions in the field vary in organizational settings and specific responsibilities, broad knowledge of safety and occupational health principles, methods, and techniques is a common occupational requirement. Skill in recognizing hazardous or potentially hazardous conditions, developing measures to eliminate or control these conditions and effectively communicating the appropriate measures to resolve these problems is essential. Knowledge requirements range from the basic methods, techniques, and principles found at the entrance level to comprehensive knowledges and skills necessary to establish and manage programs found at the higher levels. A practical knowledge of the methods, techniques, and procedures applies by industrial hygienists and environmental and fire prevention engineers is frequently necessary.

Safety and occupational health managers and specialists typically play a role in the formulation, implementation, maintenance or modification of an agency's safety and occupational health program and consequently possession of program knowledges, skills, and abilities is highly important in the successful performance of occupational duties. Safety and occupational health managers and specialists should have a working knowledge of subject-matter areas such as information systems, fiscal, personnel and property management and the social and physical sciences. The identification and solution of many safety and occupational health problems often requires cooperation with individuals from these fields.

Certain positions in the Safety and Occupational Health Management Series may require specialized knowledge of areas such as safety research, employee training, hazardous materials

or aviation. Where a specialized knowledge is essential in filling a position, selective placement of candidates is encouraged.

GRADING OF POSITIONS

The factor level descriptions and benchmarks provided in this standard are to be used to classify nonsupervisory safety management and safety specialist positions at grades GS-5 through GS-15. Benchmarks provided in this standard cover grades GS-5 through GS-14.

Excluded from the coverage of the grade level criteria in this standard are the following categories of positions:

- Supervision – Supervisory positions should be evaluated by reference to the [General Schedule Supervisory Guide](#);
- Education – Training positions concerned with education and training work should be evaluated by reference to the [Grade Level Guide for Instructional Work](#).

Positions should be evaluated on a factor-by-factor basis, using one or more of the comparable Office of Personnel Management benchmarks or by reference to the Factor Level Descriptions for the Safety and Occupational Health Management Series. Only the designated point values may be used. More complete instructions for evaluating positions are contained in the introductory material for the [Factor Evaluation System](#). The absence of a benchmark for positions at any grade between GS-5 and GS-15 does not preclude evaluation of positions at that grade.

GRADE CONVERSION TABLE

Total points on all evaluation factors are converted to GS grades as follows:

GS Grade	Point Range
5	855-1100
6	1105-1350
7	1355-1600
8	1605-1850
9	1855-2100
10	2105-2350
11	2355-2750
12	2755-3150
13	3155-3600
14	3605-4050
15	4055-up

GLOSSARY OF TERMS

The following list of terms commonly used and accepted in the safety and occupational health field is provided to assist users in the correct application of this position classification standard:

1. Abatement – application of engineering or administrative controls (e.g., enforcement or education) to eliminate, reduce or control hazards.¹
2. Accident – incidents occurring due to errors in performance of specific tasks by man and/or machine in a particular environment, sustained because of ineffective adjustments to hazards, manifested by losses incurred and observable in the form of symptoms such as pain, injury, damage, destruction, and interruption of mission.¹
3. Hazards – environmental and/or behavioral obstructions to safe task performance by man and/or machines which might allow an unfavorable extent of chance, danger, peril, or risk to effect an incident resulting in unwarranted losses.¹
4. Risk – composite of the nature of the hazard, degree of exposure to the hazard, time-duration of exposure to hazard, degree of control exercised over the hazard; hazard with potential for producing harm has been evaluated.
 - (a) Low Safety Risk – infrequent exposure to hazards that are likely to cause fatalities or serious injury, such as those found in offices.

(b) Normal Safety Risk – infrequent exposure to hazards that are likely to cause fatalities or permanent serious injuries, but which have frequent exposure to hazards that are unlikely to cause fatalities or serious injuries, but are of a nature that is commonly recognized such as those found in light materials handling or warehousing, light industrial or assembly operations not involving power machinery and light construction not involving power machinery.

(c) High Safety Risk – frequent or regular exposure to hazards that are likely to cause fatalities or permanent serious injuries such as those found in manufacturing facilities, ordnance operations, shipyards, construction, electrical/electronics maintenance, elevated working environments, under water environments (diving and salvage), major warehousing and/or materials handling and weight lifting, stevedoring or dock work, and hazardous materials transportation.²

5. Variance – temporary or permanent exception from a safety standard.¹

OCCUPATIONAL INFORMATION

Safety and Occupational Health Program Management

A fully developed safety and occupational health program typically consists of a broad range of subfunctions. Safety and occupational health subfunctions include the planning, organizing, leading, controlling and evaluation of a safety and occupational health program.³

Planning requires conceiving and developing safety and occupational health program elements; organizing involves the coordination of safety and occupational health activities through the development of appropriate organizational structures; leading entails initiating and interpreting program goals; controlling involves the setting of program priorities, review of the content of internal and external communications, and correction of program deficiencies; and evaluation is concerned with the collection, analysis and utilization of data related to accidents, injury and property losses, and program accomplishment to determine areas where improvement is needed.

Inherent in program management is the advising of top management of appropriate measures and alternative courses of action which will achieve mission goals with a minimum risk of injury to personnel and damage to property. This involves formal issuance of directives, regulations, and manuals concerning safety and occupational health program operations.

A safety and occupational health program requires the instruction of employees and supervisors in the techniques of performing duties free of mishaps. It also includes protection from existing or potential hazards through guarding, shielding and isolation techniques restricting exposure to bodily harm or property damage and the provision of protective equipment which reduces the risk of accident related injuries.

Safety and occupational health managers appraise the degree of program compliance with applicable laws, rules and regulations; assess achievements, and recommend new procedures.

The safety and occupational health field also involves carrying out the following:

1. Inspecting – observing environmental conditions and employee performance patterns to identify hazards, detect risks, and determine causal relationships; developing abatement recommendations for safety and occupational health hazards;
2. Investigating – searching for clues, studying variables, questioning witnesses, and retracing sequences to uncover the sources of reported injuries and illnesses;
3. Recording – assuring the validity of data collected, accurate documentation of occurrences and data summaries, and maintenance of program information;
4. Analyzing – examination of available data to identify possible sources of losses experienced, determining critical factors prior to occurrence, and recommendation of alternative adjustments to eliminate or minimize losses from injuries and illnesses;
5. Reporting – defining terminology, writing summaries and preparing summary documentation related to safety and occupational health.

Role of the Safety and Occupational Health Specialist

Safety and occupational health specialists perform nonsupervisory work in one or more areas listed in the preceding section. They work with supervisors, union officials and safety and occupational health committees to eliminate or control hazardous operations or conditions.

Although the specialists' work assignment may sometimes be narrowly focused, (e.g., work performed by an inspector, analyst, research, or instructor), they must have a general knowledge of safety and occupational health methods, practices, principles and procedures to perform effectively.

Safety and occupational health work is also characterized by the need to develop educational material and techniques. Safety and occupational health specialists often promote a wide variety of training activities designed to achieve awareness of safety hazards and corresponding preventive procedures.

Some safety and occupational health specialists, on a recurring basis, inspect private companies and cite legal violations, recommend fiscal penalties, and insure that hazardous conditions are eliminated. Inspections of private establishments may be difficult and even controversial where management is negligent or uncooperative or where there is disagreement over the interpretation of safety standards.

Other safety and occupational health specialists assess the capability of private firms to manufacture a specific commodity under agreed upon safety conditions and cite deficiencies

requiring correction before a contract will be awarded. Upon award, surveys may be made to evaluate compliance with contractual safety requirements to assure the safety of Government personnel and property and to control or eliminate hazards which could adversely affect the safe completion of the contracted work.

FACTOR LEVEL DESCRIPTIONS

FACTOR 1, KNOWLEDGE REQUIRED BY THE POSITION

This factor measures the nature and extent of information or facts which the safety and occupational health manager or specialist must understand to do acceptable work, (e.g., steps, procedures, practices, rules, policies, theories, principles and concepts), and the nature and extent of the skills of a safety and occupational health manager related to the planning, organizing, directing, and evaluating of a safety program and that of a specialist to the performance of assignments which taken as a whole represent a component of safety and occupational health program. To be used as a basis for selecting a level under this factor, a knowledge must be required and applied. Many positions in this occupation require a practical knowledge of and skill in the application of the methods, techniques, and procedures used by industrial hygienists, safety engineers, fire prevention engineers, or other health and safety personnel. The exact knowledge and skill requirements vary from position to position and location to location.

Level 1-5 – 750 Points

- Knowledge of general management functions, practices, and procedures sufficient to provide a foundation which will enable the safety and occupational health specialist to understand organizational objectives, safety and occupational health principles, regulations, standards, and work processes.
- Knowledge of organizational structure sufficient to acquire data and information for the preparation of accurate reports on work hazards, safety activities, and mishaps.

Examples of the application of knowledges at this level are:

- Classroom and on the job training involving occupational safety and occupational health principles, practices, and standards, industrial and explosive safety, engineering drawing, and traffic safety.
- Routine inspections where low safety and occupational health risks are anticipated such as in office buildings and small retail stores.
- Preparation of reports based on survey findings and analysis of mishap trends.

- Literature search efforts on safety subjects to write articles for publication in newsletters and pamphlets.

OR

Equivalent knowledge and skill.

Level 1-6 – 950 Points

- Knowledge of safety and occupational health principles, methods, and techniques permitting the independent performance of recurring assignments to control or eliminate unsafe physical conditions, equipment and machine hazards, and risks in human performance which may cause injury to persons or damage to property.
- Practical knowledge of the body of laws, regulations, policies, and procedures related to safety and occupational health to sufficiently interpret and explain the reasons and purposes for applying measures and procedures, minimizing or abating environmental hazards.

Examples of the application of knowledges at this level are:

- Type of normal safety risks encountered are covered by standard criteria and control is achieved by application or conventional safety and occupational health methods.
- Classroom instruction responsibilities include preparing formal training materials and communicating standard safety and occupational health techniques and steps to participants.
- Literature search work requires reviews of standards and codes, publications on work processes, and current industrial problems.

OR

Equivalent knowledge and skill.

Illustrations:

- Knowledge and skill sufficient to survey specialized industrial operations and practices, including guarding on machines, plant lay-out design, and work processes, and prepare a report of findings with proposed citations, penalties and abatement dates.
- Knowledge and skill sufficient to advise or formally instruct supervisors and employees on traffic safety techniques, proper storage of hazardous materials, common laboratory hazards, and building evacuation procedures.
- Knowledge and skill sufficient to evaluate specific safety standards adopted by national safety associations, societies, or institutes for possible agency application.

Level 1-7 – 1250 Points

- Knowledge of a wide range of safety and occupational health concepts, principles, and practices, laws, and regulations applicable to the performance of complex administrative responsibilities which requires the planning, organizing, directing, operating and evaluation of a safety and occupational health program.

OR

- Comprehensive knowledge of regulations, standards, procedures, methods, and techniques applicable to a broad range of safety and occupational health duties in one or more specific areas of safety and occupational health (e.g., identifying, evaluating, and controlling a wide variety of industrial hazards related to the full range of work operations). In addition, the following knowledge is also required:
 - Knowledge of standards, procedures, methods, and techniques applicable to construction projects including construction equipment, materials, and utility systems.
 - Sound, technical knowledge sufficient to analyze safety design features and specifications and develop new methods and procedures to identify or control hazardous construction processes and equipment usage.
 - Knowledge of psychological and physiological factors sufficient to evaluate the relationship of an individual to the working environment and to motivate individuals to perform in a safe manner.
 - Knowledge and skill sufficient to:
 - manage a safety and occupational health program with diverse but recognized hazards, achieving compliance with regulatory provisions and effectively communicating multiple safety and occupational health practices and procedures to staff and line personnel.
 - modify or significantly depart from standard techniques in devising specialized operating practices concerned with accomplishing project safety and occupational health objectives.

OR

Equivalent knowledge and skill.

Illustrations:

- Knowledge and skill sufficient to plan, organize, direct, budget, coordinate and evaluate a fully developed safety and occupational health program and advise key managerial and executive personnel on courses of action affecting facility operations, work processes, human-machine relationships and environmental conditions which impact on the safety and efficiency of personnel.
- Knowledge of safety and occupational health principles, practices, standards and abatement measures related to diverse industrial settings sufficient to apply a wide range of methods and techniques in the inspection of private and Government-owned plants, factories, foundries, and shipyards and to determine compliance with applicable regulatory provisions.

Level 1-8 – 1550 Points

The following requirements are in addition to the knowledges and skills described at level 1-7:

- Expert knowledge of safety and occupational health concepts, principles, laws, regulations, and precedent decisions which provide the capability to recommend substantive program changes or alternative new courses of managerial action requiring the extension and modification of existing safety and occupational health management techniques critical to the resolution of safety and occupational health management problems.

OR

- Knowledge sufficient to serve as a technical authority and make significant, far reaching decisions or recommendations in the development, interpretation or application of the principal agency safety and occupational health policies or critical criteria.

OR

Equivalent knowledge or skill.

Illustrations:

- Knowledge sufficient to manage a ballistic research laboratory safety program involving the evaluation of high safety risk activities such as the development of rockets, missiles, propellants, lasers and the dynamic testing of experimental materials, advise laboratory program officials of potential hazards and recommend control measures devised through extension of present guidelines or analysis of new safety procedures.
- Knowledge of analytical techniques, including hazard, fault tree and management oversight and risk tree analysis, sufficient to identify high safety risks to military flight and supporting

ground systems of a major military command and recommend program changes affecting the testing, maintenance, and operation of these systems.

- Knowledge sufficient to serve as a service safety and occupational health manager in a worldwide setting for military explosives and hazardous materials (munition, chemical, and radiological substances) develop and apply safety policies, controlling their use, storage, handling and transportation, and authorize exemption from critical explosive requirements.
- Knowledge sufficient to manage the safety and occupational health program of a major industrial operation requiring the development and application of technical standards and controlling requirements for the use of large mobile cranes, steam and diesel locomotives, long shoring work involving cargo vessels, and aircraft maintenance practices and advise top management on methods and procedures controlling the introduction of new equipment, toxic and radiological materials.
- Knowledge of safety and occupational health concepts, principles, practices and procedures, body of laws, regulations, and precedent decisions that enable the safety and occupational health manager to develop and recommend to the agency administrator critical programs that: (1) require modification of known safety and occupational health techniques; and (2) are applicable to an extensive range of health care operations and highly hazardous health research activities.

Level 1-9 – 1850 Points

- Knowledge and skill sufficient to generate new safety and occupational health management and administrative principles, develop original concepts applicable to new or emerging agency or service-wide functions, and plan and evaluate extensive, long-range programs and projects of a national magnitude. Typically, at Level 1-9, the safety and occupational health manager is recognized as a national or international expert.

OR

Equivalent knowledge and skill.

Illustration:

- Knowledge and skill sufficient to serve as a recognized technical authority responsible for planning and evaluating a national and worldwide safety and occupational health management departmental program involving research and development laboratories, heavy construction, major warehousing and hazardous materials handling.

FACTOR 2, SUPERVISORY CONTROLS

This factor covers the nature and extent of direct or indirect controls exercised by the supervisor, the responsibility of the safety and occupational health manager or specialist, and the review of completed work.

Controls are exercised by the supervisor in the way assignments are made, instructions are given, priorities and deadlines are set, and objectives and boundaries are defined.

Responsibility of the employee depends on the extent to which the safety and occupational health manager or specialist is expected to develop the sequence and timing of various aspects of the work, to modify or recommend modifications of instructions and to participate in establishing priorities and defining objectives.

The degree of review of the completed work depends upon the nature and extent of the review, e.g., close and detailed review of each phase of the assignment; detailed review of the finished assignment; spot check of finished work for accuracy; and review only for adherence to policy.

Level 2-1 – 25 Points

A safety and occupational health manager of higher grade or the supervisor exercises close control over the work. Specific assignments are accompanied by clear, specific and complete instructions.

The safety and occupational health specialist performs assigned responsibilities as instructed consulting with the supervisor where the original instructions do not cover a particular situation. An experienced specialist provides assistance as needed on field assignments.

The work is reviewed in progress for accuracy, adequacy, and adherence to instructions and established procedures.

Level 2-2 – 125 Points

The supervisor or safety and occupational health manager indicates to the specialist generally what is to be done on a continuing or individual assignment, limitations, quality and quantity expected, deadlines, and priority of work. Additional, special instructions for new, difficult or unusual assignments including new techniques to eliminate or control particular hazards are provided.

The specialist uses initiative in carrying out assignments structured to provide experience (in the full range of safety and occupational health work assigned to the local employing organization) consulting with a higher graded specialist or supervisor when an unusual or unanticipated situation occurs.

Completed work is reviewed to assure that methods used are technically correct and in compliance with instructions or accepted procedures.

Level 2-3 – 275 Points

The safety and occupational health manager or supervisor makes assignments by defining objectives, priorities and deadlines, and provides assistance for unusual situations where previous precedents are unclear.

The assigned duty is planned and performed within a framework of applicable instructions, policies, formal and on the job training experiences and accepted safety and occupational health practices. Particular hazards, problems, and need for deviations in assignments are accommodated by applying accepted methods, standards, regulations, and practices.

Completed work is reviewed for technical soundness of solutions achieved, appropriateness and conformity to policy and safety and occupational health program requirements. Specific methods or techniques used in achieving solutions are usually not reviewed in detail.

Level 2-4 – 450 Points

The supervisor sets the overall safety and occupational health objectives and management resources available to achieve the expected results. Program or specialized requirements and time constraints typically are developed in consultation with the supervisor.

At this level, the employee typically has responsibility for independently planning and carrying out a safety and occupational health program or a significant assignment and resolving most conflicts and hazardous situations. The work is coordinated with principal organizational representatives, and initiative must be taken to interpret safety and occupational health policy, standards and regulations in terms of established objectives. The course of action to be taken or methods and techniques to be applied may also be determined by the employee. The supervisor is kept informed of progress, potentially controversial safety and occupational health matters, or far-reaching implications.

Completed work such as reports of program accomplishments are reviewed only from an overall standpoint in terms of compatibility with other activities, or effectiveness in meeting safety and occupational health objectives.

Level 2-5 – 650 Points

The supervisor provides administrative direction with assignments in terms of broadly defined safety and occupational health mission or functional goals.

The safety and occupational health manager independently plans, designs, and carries out programs within the framework of applicable laws.

As the safety and occupational health manager at this level typically provides technical leadership, work results are considered as authoritative and are normally accepted without significant change. If the work is reviewed, the review usually is focused on such matters as fulfillment of program objectives, effect of advice, or the contribution to the advancement of safety and occupational health management. Recommendations for changes in program direction or the initiation of new safety and occupational health management projects are usually evaluated for such considerations as availability of funds and other resources, relationship to broad program goals or national priorities.

FACTOR 3, GUIDELINES

This factor covers the nature of guidelines and the judgment needed to apply them. As individual assignments vary in the specificity, applicability and availability of guidelines, the constraints and judgmental demands placed upon safety and occupational health managers and specialists also vary. For example, the existence of specific instructions, procedures and policies may limit the opportunity to make or recommend decisions or actions. However, in the absence of procedures or under broadly stated objectives, considerable judgment may be used in searching the literature and developing new methods. Guidelines should not be confused with the knowledges and skills described under Factor 1, Knowledge Required by the Position. Guidelines either provide reference data or impose certain constraints on the use of knowledge. For purposes of this factor, guidelines refer to legislation, standard or established guides, precedents, methods, procedures, and techniques including, but not limited to:

- Occupational Safety and Health Act of 1970
- Section 7902, Title 5, U.S. Code
- Title 29, Code of Federal Regulations, Part 1960
- Executive Order No. 12196
- agency manuals of instruction and operating policies
- Federal safety and occupational health standards
- national consensus standards, (e.g., American National Standards Institute)
- State and municipal government occupational safety codes
- safety clauses in Federal procurement contracts
- standard textbooks
- standard industrial classification manual

- reports of past safety and occupational health inspections
- reports and findings published by safety societies and councils
- manufacturing publications concerning new work processes, safety equipment, and protective devices

Level 3-1 – 25 Points

The safety and occupational health specialist, generally a trainee, is provided specific guidelines that are detailed and directly applicable. At this level the specialist receives instruction in safety and occupational health techniques, methods, standards and common hazards. Work is performed in accordance with guidelines and training instructions, unless a deviation is authorized by the supervisor, a higher graded employee or safety and occupational health manager.

Level 3-2 – 125 Points

The guidelines include standard operating procedures, established safety and occupational health methods, techniques, and measures, published standards, agency regulations, and written precedents which are specific and applicable to the work assigned. Some judgment is used by the safety and occupational health specialist in determining and selecting the appropriate guides for application to each situation from among a number of established technical alternatives. The specialist exercises limited judgment when, for example, applying a standard to a minor traffic hazard.

Level 3-3 – 275 Points

The safety and occupational health manager or specialist has available for application public laws, Executive Orders, State and municipal codes, Occupational Safety and Health Administration standards, agency manuals, procurement contract clauses, safety council reports, national safety association publications, and manufacturing association criteria. The work assignment typically requires independent interpretation, evaluation, selection and application of guidelines to specific situations including modifications and adaptations when necessary. In addition, judgment frequently must be exercised in applying standard hazard control or elimination practices to different situations.

Level 3-4 – 450 Points

The available guidelines at this level tend to lack specificity for many applications such as departmental or agency policies, recent developmental results, and findings and approaches of nationally recognized safety and occupational health organizations. These guidelines also are often insufficient to resolve highly complex or unusual work problems such as determining the potential hazard of detonating various experimental explosive devices in a research and

development environment. The safety and occupational health manager or specialist must modify and extend accepted principles and practices in the development of solutions to problems where available precedents are not directly applicable. Experienced judgment and initiative are required to evaluate new trends for policy development or for further inquiry and study leading to new methods for eliminating or controlling serious hazards to life and property.

Level 3-5 – 650 Points

Work is performed chiefly under basic legislation, agency policies and mission statements requiring extensive interpretation and ingenuity for adaptation. As a technical authority, the safety and occupational health manager develops new approaches and concepts where precedent does not exist, as well as nationwide standards, procedures and instructions to guide operating safety and occupational health personnel.

FACTOR 4, COMPLEXITY

This factor covers the nature, number, variety, and intricacy of tasks, steps, processes, or methods in the work performed; the difficulty in identifying what needs to be done; and the difficulty and originality involved in performing the work.

Level 4-2 – 75 Points

Work includes the preliminary evaluation of accident reports to identify contributory causes, the determination of minor safety and occupational health violations and preparation of appropriate supporting data, and the composition of safety and occupational health articles requiring a literature search for organizational newsletters.

At this level, tasks are assigned primarily to prepare the trainee to identify hazards and to control or eliminate their potential for injury or property damage.

Level 4-3 – 150 Points

Assignments consist of a variety of duties requiring the application of different safety and occupational health methods, techniques, and procedures to complete. Typically, the unsafe acts, hazardous environmental conditions or safety and occupational health problems encountered are conventional in nature. Safety and occupational health inspections include business firms with stable work processes and small storage facilities where hazardous materials are placed.

Work assignments require the identification of elements contributing to human and machine failure which may lead to injury or property damage. The degree of exposure to a hazard and the duration of such exposure experienced by individuals must be accurately assessed.

Established methods, practices and procedures, requiring only minor changes, are selected and applied to control or eliminate potential or existing hazards.

Level 4-4 – 225 Points

At this level, the assignments cover a wide range of work operations and environmental conditions involving a substantial number and diversity of hazards; or a wide variety of independent and continuing assignments in a specialized area of safety and occupational health that have exacting technical requirements.

The safety and occupational health manager or specialist evaluates a variety of complex, interrelated physical conditions, operating practices, hazardous human-machine interaction, and serious mishaps. Assignments require analysis of unconventional safety and occupational health problems or circumstances, inconclusive facts or data and are characterized by the uncertainty of accepted control or abatement methods that are available for selection and use.

The nature of the hazards is such that generally no single approach is adequate to control or eliminate a given problem; rather, the adaptation of proven safety and occupational health techniques is necessary. The work typically requires interpretation of a variety of occupational circumstances to adapt known control or protective measures to eliminate or minimize hazardous situations.

Level 4-5 – 325 Points

The work includes broad and diverse assignments requiring innovative analysis of high safety risk activities.

The safety and occupational health manager or specialist weighs, considers and evaluates: (1) high safety risks in a field with constantly changing hazards; or (2) serious conflicts between operational requirements involving hazardous materials and the application of safety and occupational health standards that require protective measures affecting the timeliness of mission accomplishment; or (3) diverse hazardous work processes and environmental conditions for a broad field characterized by a wide variety of problems such as extreme fluctuation in workforce employees assigned high safety risk jobs, large number of visitors engaged in hazardous activities, or widespread geographic dispersion of operations.

In many instances, elimination or control of unsound but often traditional work practices and dangerous physical conditions threatening individual safety and property requires the development of new accident prevention techniques for modification of accepted specialized safety procedures.

Level 4-6 – 450 Points

Safety and occupational health managers at this level originate extensive program and developmental efforts where prevailing safety and occupational health issues are largely undefined and involve problems of far-reaching implication or potential catastrophes.

The appropriate course of action is contingent on a comprehensive, penetrating analysis often requiring a variety of complex research tools with limited or few precedents to aid in the problem-solving process. Progress is difficult to achieve, often requiring experimental application of prototype control approaches before either a solution is achieved or alternative efforts are initiated supported by additional resources from within or outside the agency.

The work often results in new concepts influencing the resolution of previously unresolved, extremely complicated safety and occupational health issues, (e.g., hazards encountered by a flight crew launched into outer space).

FACTOR 5, SCOPE AND EFFECT

This factor covers the relationship between the nature of the work, i.e., the purpose, breadth, and depth of the assignment, and the effect of work products or services both within and outside the organization.

Effect measures such things as whether or not the work output facilitates the work of others, provides timely services of a personal nature, or impacts on the adequacy of research conclusions. The concept of effect alone does not provide sufficient information to properly understand and evaluate the impact of the position. The scope of the work completes the picture allowing consistent evaluations.

Only the effect of properly performed work is to be considered.

Level 5-1 – 25 Points

The purpose of the developmental assignments typical at this level is to orient inexperienced safety and occupational health specialists to occupational duties and responsibility through on the job and classroom training. The effect of the work is to facilitate the efforts of other safety and occupational health specialists in the immediate organizational unit.

Level 5-2 – 75 Points

The purpose of the work is to: (1) apply safety and occupational health standards to limited operational environments, identifying hazards and eliminating unsafe acts and conditions; and (2) familiarize the safety and occupational health specialist with the application of control procedures to hazardous conditions which, in turn, provides a basis for more responsible assignments. Work efforts contribute to the accurate and efficient performance of duties by

higher level safety and occupational health specialists or the safety and occupational health managers.

Level 5-3 – 150 Points

The work involves the evaluation and analysis of safety and occupational health problems, conditions and administrative practices affecting work operations and environmental conditions.

Work efforts affect the quality of surveys and inspections conducted, the adequacy of techniques applied to control or eliminate hazards and the physical safety and occupational health of employees and the general public.

Level 5-4 – 225 Points

The purpose of the work is to assess the effectiveness of specific programs, projects, or functions. The safety and occupational health manager or specialist plans alternative courses of specialized action to resolve hazardous conditions and unsafe working practices. The work often involves the development of safety and occupational health criteria and procedures for major agency activities. Work products impact on: (1) a wide range of agency safety and occupational health programs; or (2) safety and occupational health programs of large, private sector establishments.

Level 5-5 – 325 Points

The purpose of the work is to resolve critical safety and occupational health problems often involving serious hazards of unpredictable consequences to humans and property. The work requires the development of new guides, approaches and methods often under difficult circumstances such as when confronted by conflicting viewpoints and resource constraints. At this level, the safety and occupational health manager or specialist often serves as a consultant providing expert advice and guidance covering a broad range of safety and occupational health activities to officials, principal program managers, and other safety and occupational health managers or specialists. The work efforts affect the activities of safety and occupational health managers and specialists both within and outside the agency.

Level 5-6 – 450 Points

The purpose of the work is to plan, develop, initiate, and carry out critical agency safety and occupational health programs and projects which have national and in some cases international impact. The safety and occupational health manager's or specialist's recommendations and decisions on complex technical and policy issues where there may also be intense public concern frequently becomes official agency policy, sets agency precedents and determines actions to be taken by field organizations on matters having far-reaching implications. The actions of the safety and occupational health manager have a continuing and long term effect on the agency's programs and frequently on the policies and operations of other governmental and private sector organizations.

FACTOR 6, PERSONAL CONTACTS

This factor includes face-to-face contacts and telephone and radio dialogue with persons not in the supervisory chain. (NOTE: Personal contacts with supervisors are covered under Factor 2, Supervisory Control.) Levels described under this factor are based on what is required to make the initial contact, the difficulty of communicating with those contacted, and the setting in which the contact takes place, (e.g., the degree to which the employee and those contacted recognize their relative roles and authorities).

Above the lowest level, points should be credited under this factor only for contacts which are essential for successful performance of the work and which have a demonstrable impact on the difficulty and responsibility of the work performed.

The relationship of Factors 6 and 7 presumes that the same contacts will be evaluated for both factors. Therefore, use the personal contacts which serve as the basis for the level selected for Factor 7 as the basis for selecting a level for Factor 6.

Level 6-1 – 10 Points

Personal contacts are primarily with higher grade safety and occupational health specialists within the immediate office or related offices within the agency.

Level 6-2 – 25 Points

Personal contacts are with employees in the same agency, but outside the immediate organization such as line supervisors, safety and occupational health specialists, safety engineers, attorneys, medical officers, industrial hygienists, health physicists, contract specialists, personnel management specialists, labor representatives, and supporting technicians. Included also at this level are contacts with private sector employees during an inspection or survey.

These contacts generally are routine and within a structured setting.

Level 6-3 – 60 Points

Personal contacts of a non-routine nature are with a variety of individuals, (e.g., managers, administrative law and Federal judges, and professionals from other agencies or outside organizations). Contacts also include individuals such as managerial representatives of privately owned businesses, contractors and consultants, university professors, State and local government officials, representatives of professional societies and national safety associations, safety engineers and safety and occupational health specialists from private establishments.

Level 6-4 – 110 Points

Personal contacts are with high ranking officials from outside the agency such as key public and corporate executives, elected representatives, and top scientific personnel of other departments and agencies, State, county, and municipal governments, private industry, national safety and health organizations, public groups, and national research organizations. Safety and occupational health managers or specialists may participate as a technical expert on committees and seminars of national and international stature.

FACTOR 7, PURPOSE OF CONTACTS

In General Schedule occupations, the purpose of personal contacts ranges from factual exchanges of information to situations involving significant or controversial issues and differing viewpoints, goals, or objectives. The personal contacts which serve as the basis for the level selected for this factor must be the same as the contacts which are the basis for the level selected for Factor 6.

Level 7-1 – 20 Points

Contacts are for the purpose of obtaining and exchanging factual information that is directly related to the work. This level is generally assigned to trainee and developmental safety and occupational health positions.

Level 7-2 – 50 Points

The purpose of the personal contacts is to resolve safety and occupational health problems by planning and coordinating activities in conjunction with supervisors and employees to control or eliminate hazards. Through advisory and promotional efforts safety and occupational health specialists and managers motivate employees and public visitors to apply safe operating practices and procedures. Individuals contacted at this level are usually working toward a common goal and generally are cooperative.

Level 7-3 – 120 Points

The purpose of the contacts is to influence, motivate and encourage unwilling, skeptical and often uncooperative individuals to adopt or comply with safety and occupational health standards, practices, procedures or contractual agreements. For example, contacts are established to: (1) persuade and negotiate agreements involving agency managers or private sector executives where there are serious technical disagreements and complex employee-management relations; or (2) justify changes in operational programs to agency managers.

The majority of field safety and occupational health managers and specialists are at this level.

This level also involves deposing, making affidavits and testifying in a court of law where an opposing attorney may challenge the competence of a safety and occupational health manager or specialist including his/her work methods or findings.

Level 7-4 – 220 Points

The purpose of the contacts is to justify, defend, negotiate or settle highly significant, controversial and often very sensitive safety and occupational health issues. At this level, the safety and occupational health manager often represents the agency as a participant in professional conferences, hearings, national safety congresses, or committees to develop, change, or modify safety and occupational health standards and criteria which have a wide application and a major occupational impact. Typically, persons contacted have diverse viewpoints or opinions concerning a significant safety and occupational health policy, precedent or objective that require extensive compromise efforts to achieve a mutually satisfactory conclusion.

FACTOR 8, PHYSICAL DEMANDS

The "Physical Demands" factor covers the requirements and physical demands placed on the employee by the work assignment. This includes physical characteristics and abilities, (e.g., specific agility and dexterity requirements), and the physical exertion involved in the work, (e.g., climbing, lifting, pushing, balancing, stooping, kneeling, crouching, crawling, or reaching). To some extent the frequency or intensity of physical exertion must also be considered, (e.g., a job requiring prolonged standing involves more physical exertion than a job requiring intermittent standing).

Level 8-1 – 5 Points

The work is generally sedentary. There may be some walking, standing or bending and carrying of small and light objects.

Level 8-2 – 20 Points

The work requires regular and recurring physical exertion related to frequent inspections and surveys requiring considerable standing, walking, climbing, bending, crouching, stretching, reaching or similar movements. Occasionally, there may be a need to lift and carry moderately heavy objects. The work may require some degree of agility and dexterity when, for example, it involves inspecting ships or construction sites.

FACTOR 9, WORK ENVIRONMENT

The "Work Environment" factor considers the risks and discomfort in the employee's physical surroundings or the nature of the work assigned and the safety and occupational health

regulations required. Although the use of safety and occupational health precautions can practically eliminate a certain danger or discomfort, such situations typically place additional demands upon the employee in carrying out safety and occupational health regulations and techniques.

Level 9-1 – 5 Points

The work is usually performed in an office setting. Occasionally, there may be exposure to the risks and hazards of work environments and conditions requiring special safety precautions and clothing.

Level 9-2 – 20 Points

The work involves regular and recurrent exposure to hazards, unpleasantness, and discomforts such as moving machine parts, shielded radiation sources, irritant chemicals, acid fumes, physical stresses, high noise levels, adverse weather conditions, and high temperatures from steam lines. Protective equipment and clothing may be needed, including hard hat, metatarsal shoes, ear muffs or plugs, goggles, respirators and gloves.

OPM BENCHMARK DESCRIPTIONS

SAFETY AND OCCUPATIONAL HEALTH SPECIALIST, GS-0018-05, BMK #1

Duties

As a trainee attends formal courses, performs selected on the job assignments, and receives instructions on agency or departmental goals, objectives, regulations, procedures, occupational hazards, safety standards, inspection techniques, and work processes.

- Receives classroom instruction and completes written assignments to become familiar with: (a) Federal occupational safety laws, legal statutes and Executive Orders; (b) industrial processes and hazards; (c) psychological concepts in human relations; (d) mishap investigation techniques; and (e) hazards related to construction sites, electrical installation, compressed gases, and materials handling.
- Participates as member of a survey or inspection team led by a higher graded specialist and is exposed to the practical application of techniques and measures used to identify hazards; attends and observes closing sessions where violations of appropriate standards and subsequent corrective requirements are discussed with management representatives.
- Studies and reviews past inspection records to further understanding of the application of technical standards to specific unsafe acts or conditions.

Factor 1, Knowledge Required by the Position – Level 1-5 – 750 Points

- Knowledge of general administrative methods and techniques which provides a basis for comprehending the objectives of safety and occupational health programs and the technical measures and procedures used to control or eliminate unsafe acts and conditions.
- Knowledge of government organizational structure sufficient to obtain data and information regarding work operations, mishaps, and safety practices, and to prepare a report of findings.

Factor 2, Supervisory Controls – Level 2-1 – 25 Points

The safety and occupational health manager or higher graded specialist assigns work or inspection tasks and provides detailed instructions on the use of selected methods, procedures and techniques to be used for each assignment. Work is closely supervised and assistance provided by a higher graded specialist when original instructions or guidelines prove inadequate. Work in progress and results accomplished are closely reviewed for technical accuracy, completeness, compliance with instructions and for indications that the employee has the capability to perform more difficult assignments.

Factor 3, Guidelines – Level 3-1 – 25 Points

The trainee receives specific, detailed, instructional materials covering principal safety and occupational health hazards, work processes, safety techniques and procedures. Guidelines also include standards, survey and inspection reports, and agency manuals. These guidelines are directly applicable to assignments. Work is performed in accordance with specific guidance; limited judgment may be exercised such as gathering information concerning a minor mishap or recording mishap data.

Factor 4, Complexity – Level 4-2 – 75 Points

Assignments consist of specific, often unrelated duties, which provide an orientation to occupational work and the different types of safety hazards and the use of safety techniques, measures, and procedures to eliminate or control hazardous conditions. Typically, tasks involve routine and detailed work that supports surveys or inspections performed by higher graded specialists.

Factor 5, Scope and Effect – Level 5-1 – 25 Points

The purpose of the work is to orient the specialist trainee through a developmental program to the practical application of classroom instructions. The effect of the work is to facilitate the work of senior specialists within the immediate office.

Factor 6, Personal Contacts – Level 6-2 – 25 Points

Personal contacts are with higher graded specialists, safety engineers, and industrial hygienists in the immediate office. On inspections or surveys, there is contact with workers and line supervisors at the work site.

Factor 7, Purpose of Contacts – Level 7-1 – 20 Points

The purpose of the contacts is principally to obtain and exchange factual information related to work activities, processes, and conditions and to report on findings.

Factor 8, Physical Demands – Level 8-2 – 20 Points

The work involves frequent standing, walking, climbing, crouching, and stretching in the performance of inspection and survey duties and occasional lifting of moderately heavy objects.

Factor 9, Work Environment – Level 9-2 – 20 Points

There is frequent exposure to industrial hazards and unpleasant environmental conditions, including high noise level and adverse weather conditions, requiring the use of protective clothing and safety devices.

TOTAL POINTS – 985

**SAFETY AND OCCUPATIONAL HEALTH SPECIALIST, GS-0018-07,
BMK #1**

Duties

The specialist performs survey work to identify and evaluate hazardous and nonhazardous industrial work operations and conditions and to recommend corrective procedures where the potential for injury or property damage exists.

- Participates as member of team led by a higher graded specialist, conducting a limited segment of a major inspection of a large manufacturing firm producing and storing ammunition and explosives; surveys nonionizing radiation sources, the use of machine guards, and chemical storage areas; drafts a report of findings proposing corrective measures for unsafe conditions and hazardous work practices.
- Conducts independent inspections of small, privately owned firms where exposure and type of hazard is predictable in advance.

- Provides informal instruction to work leaders and employees covering a variety of standard, general safety and occupational health subjects including mishap prevention and safe working practices.
- Analyzes accident and injury reports, studying data to discover trends and mishap causes, and to develop recommendations for eliminating or controlling the hazards detected.

Factor 1, Knowledge Required by the Position – Level 1-5 – 750 Points

- Knowledge of general administrative practices and procedures enabling the specialist to interpret and apply basic standards, criteria, and operating instructions to specific unsafe acts and conditions.
- Knowledge of principal inspection and survey techniques sufficient to identify occupational hazards, and to determine elements giving rise to mishaps.
- Knowledge of basic safety and occupational health principles, common hazards and protective measures, including safety devices, sufficient to provide informal training sessions and appropriate educational materials to employees.

Factor 2, Supervisory Controls – Level 2-2 – 125 Points

The safety and occupational health manager or higher graded specialist assigns the survey and specifies the nature of the work to be done, complicating factors, past history, and possible problems. Assignments are structured to provide experience in the full range of safety work assigned to the employing organization. The supervisor provides specific instructions and applicable techniques and procedures for new or difficult tasks. Results and recommendations are reviewed for adherence to instructions and standards, completeness of work, and accuracy of conclusions.

Factor 3, Guidelines – Level 3-2 – 125 Points

The guidelines provided the specialist include published safety and occupational health standards, agency manuals, precedent inspection information, contractual procurement clauses, standard textbooks, professional literature, and office files. Judgment is required to select applicable technical criteria, guides or reference material for each specific assignment. Where existing guidelines do not cover the assignment, advice and guidance are available from the supervisor.

Factor 4, Complexity – Level 4-3 – 150 Points

The specialist performs a variety of different assignments including conducting conventional surveys to identify unsafe practices and working conditions, to evaluate the nature and characteristics of hazardous exposures, and to recommend measures designed to remedy or correct hazards encountered. Elimination or control of hazards requires the selection and

application of the appropriate methods, techniques, or procedures from among many different but conventional alternatives.

Factor 5, Scope and Effect – Level 5-3 – 150 Points

The purpose of the work is to survey or inspect a variety of work operations and practices, fire suppression equipment, injury records, and equipment maintenance data to identify and analyze hazards to individuals and property. Work efforts result in the formal identification of hazards discovered and initiation of compliance activity to eliminate or abate safety and occupational health deficiencies and ensure the physical safety of employees.

Factor 6, Personal Contacts – Level 6-3 – 60 Points

Personal contacts include safety engineers, management representatives and industrial hygienists within the agency and from other Federal agencies and contractor representatives, safety engineers and labor representatives from the private sector.

Factor 7, Purpose of Contacts – Level 7-2 – 50 Points

Contacts are established to discuss the nature and type of hazards encountered and to coordinate the carrying out of measures to correct the adverse potential of unsafe work practices, unguarded machine operations, and fire hazards. The specialist motivates and encourages personnel who are usually willing and cooperative to adopt safe working practices and to remedy hazardous conditions.

Factor 8, Physical Demands – Level 8-2 – 20 Points

Survey or inspection work requires regular and recurrent physical exertion such as walking, standing, bending, climbing, crouching, reaching, and lifting of a variety of moderately weighted products fabricated by employees.

Factor 9, Work Environment – Level 9-2 – 20 Points

The work environment involves frequent exposure during inspections and surveys to a variety of machine and equipment operations, hazardous materials, high noise levels, and temperature extremes. Protective clothing and equipment may be necessary in some situations.

TOTAL POINTS -- 1450

SAFETY AND OCCUPATIONAL HEALTH SPECIALIST, GS-0018-09, BMK #1

Duties

Conducts safety and occupational health surveys at a military installation, recommends measures to eliminate or control hazardous practices and conditions which may cause mishaps; prepares supplemental written safety procedures for application to local organizational components.

- Performs periodic onsite surveys for assigned organizations; inspects construction projects and designs to determine compliance with applicable occupational safety standards, (e.g., question of exits and stairs, floor load capacity, aisle space, adequacy of sprinkling systems, safety features on storage tanks containing flammable and volatile liquids, and the adequacy of scaffolding erected to facilitate painting of buildings).
- Advises supervisors and safety representatives of appropriate safety and occupational health measures to control or eliminate hazardous operating processes or environmental conditions.
- Prepares and revises safety instructions and guides that are relevant to current or planned contractor and base employees.
- Investigates mishaps, obtains statements from witnesses, and photographs mishap scene; records circumstances of mishap and extent of injuries, estimates cost of property damage, and prepares a final report of findings with recommendations to correct the unsafe acts or conditions that caused the personnel injury or property damage.
- Provides technical safety training to supervisors and employees using a wide variety of materials, publications, exhibits, protective devices, and visual aids; promotes safety campaigns through oral presentations at local safety committee meetings, posting safety displays, and publishing mishap prevention articles.

Factor 1, Knowledge Required by the Position – Level 1-6 – 950 Points

- Knowledge of safety and occupational health principles, methods and standards, regulations, policies, and procedures applicable to conventional construction projects and necessary materials to control or eliminate hazardous environmental conditions and mechanical risks to personnel.
- Knowledge of established construction practices related to flooring, roofing, foundations, and interior electrical wiring of residential, commercial and industrial structures sufficient to identify actual and potential hazards and to explain the need for applying specific safety measures where unsafe conditions are encountered.

- Skill in the interpretation of design criteria sufficient to review building plans, drawings and sketches for compliance with applicable safety standards.

Factor 2, Supervisory Control – Level 2-2 – 125 Points

The supervisor assigns surveys and administrative tasks together with instructions as to objectives, priorities, possible problems and deadlines. The specialist plans repetitive onsite construction inspections conferring with a higher graded specialist or supervisor on difficult or unusual situations. The work results are reviewed by the supervisor to ensure that the methods, and procedures selected are technically sound and in accordance with accepted criteria.

Factor 3, Guidelines – Level 3-3 – 275 Points

Guidelines include agency safety and occupational health manuals and publications, occupational safety standards, textbooks, journals of professional engineering societies, past survey reports and pertinent construction literature. The specialist selects and applies the appropriate technical criteria which frequently require adaptation to meet assignment needs. Judgment is necessary when comparing standards applied in previous surveys to the conditions encountered on current surveys.

Factor 4, Complexity – Level 4-3 – 150 Points

Assignments involve surveys of construction projects of a conventional nature requiring the identification and appraisal of a variety of hazardous conditions. The type and degree of exposure found must be evaluated to ascertain its potential for harm to individuals and damage to property. The specialist recommends corrective measures to supervisors and employees from among many alternative but established techniques.

Factor 5, Scope and Effect – Level 5-3 – 150 Points

The purpose of the work is to survey construction activities on a installation involving review of plans and drawings, emergency exits, types of construction materials used, adequacy of ventilation and illumination, and to recommend measures and techniques to resolve identified hazards. Work results affect the adequacy of the installation's safety and occupational health program, the safety of employees, and the effectiveness of the measures applied to control or eliminate potential damage to property.

Factor 6, Personal Contacts – Level 6-3 – 60 Points

Personal contacts include safety engineers, industrial hygienists, labor union representatives, contract specialists, line supervisors, and work leaders within the agency, and private contractor representatives, local safety council members and safety and occupational health specialists from other Federal agencies.

Factor 7, Purpose of Contacts – Level 7-3 – 120 Points

The purpose of the contacts is to convince, motivate, and encourage often reluctant or unresponsive individuals to adopt safety measures and use protective devices; in other cases, contacts involve the exchange of information, coordination of work activities and discussions to resolve unsafe operational conditions.

The work requires frequent onsite surveys necessitating prolonged standing, walking, climbing, bending, crouching, stretching, reaching and other physical movements. As stairs and aisles are often under construction, some physical coordination and balance is necessary.

Factor 9, Work Environment – Level 9-2 – 20 Points

Work involves frequent exposure to construction hazards, high noise levels, and adverse weather conditions. Protective gear may be required when conducting surveys.

TOTAL POINTS -- 1870

**SAFETY AND OCCUPATIONAL HEALTH SPECIALIST, GS-0018-09,
BMK #2**

Duties

Performs inspections of private manufacturing plants as member of a team of higher graded specialists assigned to an area office of a regulatory agency to determine compliance with safety and occupational health laws and regulations. The specialist identifies hazards and assesses their potential for harm to employees and provides technical assistance to managers and supervisors necessary to achieve safe and healthful working conditions. The employee also conducts independent inspections of small manufacturing firms where operating processes are stable and physical conditions unchanging.

- Conducts or participates in opening conferences with managers and employee representatives explaining purpose and scope of inspection and pertinent safety and occupational health regulations.
- Studies records and files covering mishaps, injuries, and equipment maintenance data; reviews safety activities for evidence of compliance with prescribed safety requirements.
- Inspects worksite, machine and equipment operations, environmental conditions, work practices, protective devices and equipment, and safety procedures; records and photographs apparent violations of standards for use as evidence of existing hazards.

- Interviews supervisors and employees for information on specific working conditions to evaluate the total worksite environment.
- Conducts or participates in closing conference with employer reviewing hazards cited or observed, advising employer of legal responsibility to provide occupational safe worksite and of legal right to appeal inspection findings.
- Prepares final report or assigned portion of report, showing apparent violations, and recommends penalties and abatement dates.
- Assists attorneys in preparing evidence supporting agency's findings of safety and occupational health violations where employer contests results of inspection; testifies as witness under examination by agency and employer attorneys.

Factor 1, Knowledge Required by the Position – Level 1-6 – 950 Points

- Knowledge of safety and occupational health principles, practices, techniques, and standards to perform independent inspections of manufacturing activities where equipment operations, working conditions, and materials handled are potentially hazardous.
- Knowledge of agency regulations, policies, procedures, manuals, and pertinent appeal rulings to accurately cite violations of safety and occupational health provisions and to explain basis for citations.
- Knowledge of corrective safety and occupational health measures to recommend possible courses of actions effective in the control or elimination of hazards detected.

Factor 2, Supervisory Controls – Level 2-2 – 125 Points

The supervisor or higher graded specialist provides initial assignment instructions, explains difficulties to be expected during the inspection, possible methods to be applied, and pertinent reference criteria. The specialist exercises resourcefulness in performing assigned compliance duties. Unusual situations are referred to a higher graded specialist for advice.

Completed inspection work is reviewed for technical accuracy and procedures employed and serves as a basis for future, progressively more difficult assignments.

Factor 3, Guidelines – Level 3-3 – 275 Points

Guidelines include agency operating procedures, previous inspection reports, safety and occupational health standards, textbooks, safety publications, Directories of State Industries, Standard Industrial Classification Manual and pertinent literature from manufacturing associations. The specialist independently searches for applicable reference criteria which may only partially cover the hazards encountered, requiring modification and judgment to complete the assignment.

Factor 4, Complexity – Level 4-3 – 150 Points

Assignments at this level involve performing as a team member, a segment of a difficult major inspection effort or independently inspects small, private establishments where operational processes and hazards are known.

The specialist evaluates a variety of work practices, human-machine relationships, and working conditions. Exposure of employees to recognized hazards must be analyzed and the seriousness and duration of the exposure appraised.

The specialist selects and applies appropriate regulatory provisions to determine whether establishments are complying with prevailing safety and occupational health standards.

Factor 5, Scope and Effect – Level 5-3 – 150 Points

The purpose of the work is to inspect private manufacturing activities to evaluate and determine whether there are hazardous conditions detrimental to the safety and occupational health of the employees. Inspection findings result in the imposition of fiscal penalties on noncomplying firms, fixing of abatement dates for correction of hazards and the establishment or update of the compliance record for the firms inspected. Results of the inspection affect the physical safety of the employees and the quality of the area office inspection program.

Factor 6, Personal Contacts – Level 6-3 – 60 Points

Personal contacts include safety and health specialists, attorneys, and administrative law judges within the agency; other contacts include Federal judges and state compliance inspectors; contacts at the private firms inspected include management and safety representatives and labor union officials.

Factor 7, Purpose of Contacts – Level 7-3 – 120 Points

The purpose of the contacts is to persuade, convince and motivate often uncooperative and unresponsive individuals, to provide information on hazards and to resolve hazardous processes and conditions in accordance with published safety and occupational health standards. The purpose of courtroom testimony is to provide evidence of violations and to explain criteria used to determine and support hazardous findings.

Factor 8, Physical Demands – Level 8-2 – 20 Points

The performance of inspection activities requires frequent walking, standing, bending, climbing, crouching, reaching and lifting of a variety of moderately heavy items such as large metal lids on storage containers.

Factor 9, Work Environment – Level 9-2 – 20 Points

The work involves frequent exposure to a variety of manufacturing machinery and equipment operations, fumes and dust, hazardous materials, high noise levels, and temperature extremes. Protective clothing and equipment is frequently required.

TOTAL POINTS – 1870

**SAFETY AND OCCUPATIONAL HEALTH MANAGER, GS-0018-11,
BMK #1**

Duties

Serves as a safety and occupational health manager at a military installation and is responsible for planning, directing, coordinating and evaluating a 24-hour safety and occupational health program. As manager, issues local directives and procedures establishing technical and administrative safety and occupational health requirements for industrial, construction, commercial and transportation activities.

- Plans and schedules periodic surveys of installation facilities and provides advice and guidance to managers engaged in a full range of industrial and maintenance functions including the operation of a steam plant, machine and sheet metal shops; handling, storage, and maintenance of liquid oxygen and other hazardous materials; performance of aircraft and vehicle maintenance work; construction of additions to existing buildings or converting structures to different uses; and operation of commissaries for military personnel and dependents.
- Recommends to installation management the application of specific techniques, methods, and procedures to eliminate or control unsafe acts or conditions identified in surveys or through a mishap information system.
- Investigates and analyzes mishaps and hazardous conditions to determine origin, causes, and contributing elements and prepares written evaluation reports concerning findings. Reports typically contain graphs, charts, and recommendations for changes in operating procedures, local regulations, and use of protective devices.
- Initiates and carries out safety education activities, promoting safety awareness through safety councils, providing training courses such as traffic safety to employees, preparing brochures and newsletters explaining job safety procedures, and meeting with specialized equipment operators, (e.g., forklift operators, to discuss safe and unsafe work practices).
- Coordinates activities involving, for example, procuring machine guards for new machines, determining respirator capabilities, or acquiring technical data on fire incidents with related

operational and support program personnel (such as procurement, medical, fire protection, personnel, health physics, and industrial hygiene).

- Promotes area wide safety activities such as a fire prevention week which require participation in State, county, and municipal planning conferences.

Factor 1, Knowledge Required by the Position – Level 1-7 – 1250 Points

- Knowledge of safety and occupational health principles, practices, procedures, and regulations applicable to the performance of a full range of safety and occupational health management responsibilities on a military installation and the planning, organizing, directing, operating, and evaluation of a safety and occupational health program involving steam plant and industrial shop operations, aviation maintenance and automotive repair work.
- Knowledge of psychological and physiological factors sufficient to conduct a wide variety of activities promoting safe working practices, use of protective gear, and proper equipment operation procedures.
- Knowledge of industrial work processes, compressed gases, flammable and combustible liquids to pinpoint causal factors contributing to mishaps and resulting in dangerous working conditions.
- Knowledge of construction standards, practices and techniques, building materials, and installation and maintenance of utilities sufficient to develop effective controls of work and equipment hazards resulting from new construction or modification of current facilities.
- Skill in interpreting engineering drawings and specifications sufficient to identify potential hazardous conditions in proposed facilities or activity sites.

Factor 2, Supervisory Controls – Level 2-4 – 450 Points

The supervisor makes initial assignments in the form of statements of functional responsibilities together with safety and occupational health management objectives. The safety and occupational health manager in consultation with the supervisor develops program activities and sets due dates. The manager independently plans and administers the safety and occupational health program coordinating specific actions with installation managers and supervisors, resolving difficulties and carrying out program requirements. Work results are normally accepted as technically sound but are reviewed upon completion for attainment of objectives, policy implications, and compatibility with the activities of other organizational components.

Factor 3, Guidelines – Level 3-3 – 257 Points

Guidelines include regulatory and procedural issuances from higher headquarters, safety and occupational health standards, textbooks, procurement contract clauses, professional journals, manufacturers' catalogs, and established occupational practices. The safety and occupational health manager uses ingenuity and applies discretion in the implementation of program requirements as frequently guidelines are generally broad, necessitating interpretation for use at the installation level. Elimination or control of specific hazards may require alteration of established safety techniques or practices due to mission changes or the introduction of new machinery.

Factor 4, Complexity – Level 4-4 – 225 Points

The safety and occupational health manager directs a fully developed program covering a broad range of functions including program administration, control of unsafe actions and conditions, safety education, and systematic evaluation of mishaps.

The safety and occupational health manager evaluates numerous and diverse industrial practices, conditions, and machine operations requiring analysis of complex work features such as mechanical and equipment operations in a large steam plant to minimize the danger of injury to operators and the possibility of fire incidents. On a regular basis, the manager determines the nature of risks inherent in vehicle maintenance work and recommends procedures that control potential for injury; assess type and character of chemical hazards by studying potential for hazardous results and sets safety criteria. These evaluations and consequent control measures require study of environmental circumstances as the course of action in many instances is not readily apparent and the nature of the hazardous consequences is unclear.

The diversity of potential or existing hazards requires the selection, from among alternatives, of control measures that often require adaptation of specific techniques to eliminate or abate unsafe conditions.

Factor 5, Scope and Effect – Level 5-3 – 150 Points

The purpose of the work is to manage a safety and occupational health program for a military installation to eliminate or minimize hazards which cause injuries to personnel and damage to property. The manager implements program regulations and directives which impact working processes and the occupational environment of the installation.

Work results are directly related to the effectiveness of safety and occupational health measures and techniques. Work also affects the safety of visitors and employees.

Factor 6, Personal Contacts – Level 6-3 – 60 Points

Personal contacts are with military and civilian managers, medical, procurement, and personnel specialists, private contractor representatives, officials of civilian safety councils and

organizations in the immediate community, other safety and occupational health managers, and employees.

Factor 7, Purpose of Contacts – Level 7-3 – 120 Points

The purpose of the contacts is to discuss and define safety and occupational health program requirements and objectives, to convince often skeptical supervisors, contractors and employees to comply with safety and occupational health regulations and standards, to justify changes in working operations which will eliminate or reduce exposure to hazards, and to exchange information with community safety officials.

Factor 8, Physical Demands – Level 8-2 – 20 Points

The performance of work duties frequently requires inspections of installation shops, hangars, hazardous storage facilities, construction sites, offices, and barracks necessitating extended periods of walking and standing.

Factor 9, Work Environment – Level 9-2 – 20 Points

The safety and occupational health manager is frequently exposed to machines and equipment in operation, hazardous materials including compressed gases and flammable liquids and construction hazards.

TOTAL POINTS – 2570

**SAFETY AND OCCUPATIONAL HEALTH SPECIALIST, GS-0018-11,
BMK #2**

Duties

Performs as a safety and occupational health specialist assigned to a medical and health research agency. Evaluates and corrects risk potentials arising from biomedical research and related activities.

- Independently schedules surveys of laboratories, shops, and offices to identify and evaluate risk potential involving a wide variety of work environments and occupations; determines the extent to which mechanical and physical conditions comply with required or accepted standards, their adherence to established safety policies and procedures, and the effectiveness of the assigned program. Certifies laboratories or other work environments where local guidelines or standards require assurance that specific and predetermined safeguards or practices are present prior to work beginning.
- Directs investigation of accidents, analyzing precipitating factors and accident cause data in order to develop specific methods for prevention. Consults with specialists from related

occupations concerning work process modifications and recommends corrective or remedial safety measures.

- Prepares safety guides and internal instructions for low safety and normal safety risks encountered in an assigned area of responsibility; identifies the need for higher level risk guides or instructions.
- Advises senior level management officials within the assigned area on the status of the safety and occupational health programs and recommends changes in the design of work programs to meet new safety and occupational health standards.
- Performs special environmental monitoring tasks using a variety of instruments to determine potentially unsafe exposures. Coordinates long-term studies of unsafe work conditions with appropriate supervisors.
- Instructs employees on a variety of safety and occupational health subjects including chemical, biological or physical safety, various laboratory safety needs, or ventilation requirements. Adapts various available media to fit special and unique training requirements and participates in the development of novel or innovative safety training and promotion activities.
- Periodically, confers with safety and occupational health specialists at universities, hospitals and research organizations to identify hazards related to new laboratory equipment and to become familiar with evolving techniques and protective devices for controlling or eliminating potential safety hazards.

Factor 1, Knowledge Required by the Position – Level 1-7 – 1250 Points

- Comprehensive knowledge of occupational safety and occupational health principles, techniques, practices and standards applicable to the performance of surveys in a biomedical environment and sufficient to identify and evaluate a variety of environmental risks, including those encountered in research laboratories and to eliminate or control hazardous operations or conditions.
- Basic knowledge of a physical, chemical or biological field sufficient to apply standard safe practices, procedures, and equipment guides to a laboratory work environment and to aid in promoting the adoption of safe working patterns.
- Knowledge of building design and construction practices in a health research environment sufficient to analyze plans for expansion or modification of facilities and develop new procedures to identify and control hazardous construction processes and equipment usage.
- Practical knowledge of industrial hygiene, environmental and safety engineering, and fire protection sufficient to identify the common deficiencies found in assigned work area.

- Knowledge of human motivational techniques sufficient to apply the principles to a wide variety of employee population and environments to achieve safe working conditions.

Factor 2, Supervisory Controls – Level 2-3 – 275 Points

The supervisor assigns the specific area of responsibility, safety objectives and applicable program constraints. The safety and occupational health specialist, in consultation with the supervisor establishes priorities and completion dates. She/he carries out routine safety and occupational health activities within the assigned area conferring with other safety and occupational health specialists as necessary or with the supervisor where controversial or unusual problems are encountered and precedent experience is inadequate. Completed work is evaluated for both program and technical adequacy of results achieved and compatibility with prevailing requirements.

Factor 3, Guidelines – Level 3-3 – 275 Points

Guidelines are agency manuals, regulations and directives, safety standards, safety clauses in procurement contracts, fire protection guides, standard textbooks, professional journals and manufacturing association publications. The safety and occupational health specialist uses judgment in selecting, interpreting and applying established criteria which may not be clearly applicable to all operating situations particularly those concerning the use of experimental laboratory procedures.

Factor 4, Complexity – Level 4-4 – 225 Points

The specialist identifies and evaluates potential risks, conducts accident investigations, prepares guides or instructions, educates employees in safe operating practices or techniques, and coordinates activities with other safety and occupational health specialists as necessary in the discharge of his/her safety responsibilities. The specialist selects, adapts, and recommends control measures to minimize or eliminate the possibility of serious danger to employees or damage to the environment, often in laboratory settings where little or no precedent information is available.

Factor 5, Scope and Effect – Level 5-3 – 150 Points

The purpose of the position is to identify and analyze a variety of hazards in research laboratories and supporting maintenance shops, and reduce or eliminate the potential for injury or property damage. Work results contribute to the effectiveness of the overall safety and occupational health program, the safety and health of employees, and the conservation of the organization's facilities.

Factor 6, Personal Contacts – Level 6-3 – 60 Points

Contacts within the agency include health research supervisors, engineers, health physicists, maintenance shop supervisors, medical and fire suppression personnel. Other contacts include rental managers of private buildings, safety managers of private hospitals, safety specialists employed by professional organizations, and safety officials from the immediate community.

Factor 7, Purpose of Contacts – Level 7-3 – 120 Points

The purpose of the contacts is to discuss safe operating techniques and practices and to gain the participation of skeptical supervisors in the application of safety measures and use of protective gear. As the research experiments involve chemical and biological hazards incompletely covered by accepted safety standards, the specialist must exercise tact and diplomacy in persuading research personnel to modify and change operating procedures to minimize risks to individuals and agency property.

Factor 8, Physical Demands – Level 8-2 – 20 Points

The work involves the frequent performance of surveys and onsite visits to laboratory and maintenance shops necessitating prolonged periods of walking and standing.

Factor 9, Work Environment – Level 9-2 – 20 Points

The specialist is frequently exposed to mechanical hazards ranging from power tools to operating machinery and chemical and biological hazards while performing laboratory and maintenance shop surveys.

TOTAL POINTS – 2395

**SAFETY AND OCCUPATIONAL HEALTH SPECIALIST, GS-0018-11,
BMK #3**

Duties

As a specialist assigned to an area office of a regulatory and enforcement agency, conducts inspections of private businesses, plants, and firms in an assigned geographical area and determines compliance with safety and occupational health standards and regulations. Assignments include investigating accidents involving multi-fatalities and employee complaints concerning hazardous work operations and conditions; citations are issued to employers and financial penalties proposed for violations detected.

- Performs a full range of inspections in a variety of establishments where a single inspection often identifies hazards ranging from serious to minor in severity.

- Plans each inspection, reviewing work processes, practices and conditions characteristic of the site to be inspected, and studies information available from previous compliance reviews.
- Visits site, normally without advance notice, explains purpose of inspection and legal authorization to complete survey and evaluates mishap history and safety program.
- Inspects worksites, work operations and conditions, records hazards and obtains evidence of regulatory violations through use of measurement devices and by photographing unsafe conditions.
- Interviews management and labor union representatives and employees to acquire specific details on hazardous operational processes and conditions.
- Asks the employer to voluntarily abate serious or imminently dangerous conditions to employees and provides assistance to resolve hazards encountered.
- Conducts closing conference with employer, reviews hazards and violations noted and advises the employer of possible fiscal penalties resulting from inspection and employer rights and obligations under the Occupational Safety and Health Act.
- Investigates mishaps resulting in fatalities or injuries and serious incidents such as explosions; records conditions related to cause and mishap, assesses the potential of a recurrence, interviews witnesses and determines citation and type of penalty to be assessed.
- Assists agency attorneys in the preparation of contested cases for hearing before agency review judges; testifies under examinations conducted by attorneys representing the agency and the employer.
- Accompanies trainees on inspections and provides them with on the job experience in a variety of techniques and procedures used to evaluate compliance with safety and occupational health standards.

Factor 1, Knowledge Required by the Position – Level 1-7 – 1250 Points

- Comprehensive knowledge of safety and occupational health regulations, techniques, procedures, practices, and standards applicable to the performance of compliance inspections for a wide range of industries, manufacturing plants, transportation facilities, maritime activities, construction projects, and other privately owned establishments. This knowledge extends to a wide variety of work processes, practices, machinery, and environmental conditions sufficient to identify failures in human or equipment performance and to recommend control measures.
- Knowledge of utility systems applicable to industrial and manufacturing structures; construction practices, materials, and equipment; and personal protective devices sufficient

to recommend new methods to employers that will minimize or eliminate hazardous operations, conditions, and practices.

- Skill in the interpretation of construction design and specifications sufficient to detect potential hazardous conditions.
- Practical knowledge of the basic concepts used in designing human-machine interfaces and the techniques for motivating and training individuals sufficient to minimize stress in a mechanized work environment.

Factor 2, Supervisory Controls – Level 2-3 – 275 Points

A senior specialist or area office chief assigns the specialist a specific geographic area, sets objectives and provides general directions concerning how the work is to be performed. Inspections are planned by the specialist and coordinated with other safety and occupational health personnel. The work is accomplished by applying standard criteria, agency training experience, and established safety and occupational health practices. Unusual, uncommon or complex hazards involving work processes, materials, equipment or machinery are resolved by reference to pertinent safety and occupational health literature or by consultation with senior specialists. Inspection reports and other work products are reviewed for adherence to agency program requirements and the adequacy of technical criteria applied in the performance of compliance duties.

Factor 3, Guidelines – Level 3-3 – 275 Points

Guidelines include published safety and occupational health standards, agency operations manual and supplemental instructions, national consensus standards, standard textbooks, established practices, professional journals, and past inspection reports. The specialist often interprets the application of specific guidelines for particular phases of an inspection, exercising good judgment in the application of criteria to potential hazards.

Factor 4, Guidelines – Level 4-4 – 225 Points

The compliance reviews or inspections span the full range of private establishments in an assigned geographical area including industrial, manufacturing, transportation, maritime and other types of enterprises. The establishments inspected represent a diversity of operations where work practices, conditions, and occupational activity subject the employees to a variety of high and normal risks.

The specialist investigates potential and existing hazardous situations, identifying and evaluating unsafe operations and conditions. The work is complicated by a variety of different, complex machine designs and performance capabilities, the presence of large quantities of hazardous materials, and improper assembly line equipment all of which pose problems in the evaluation of the establishment's compliance with occupational standards. Analysis of potential hazards requires adapting established techniques and methods to adequately measure risks to employees.

The specialist recommends protective measures tailored to control a combination of complex hazardous elements with a minimum of interference with the production processes.

Factor 5, Scope and Effect – Level 5-3 – 150 Points

The purpose of the work is to evaluate the working conditions, operating processes, and safety and occupational health program of diverse private businesses, firms, plants and enterprises to assess their compliance with published safety and occupational health requirements.

These inspections affect the quality of the area office inspection program and result in the identification and more effective control of hazardous conditions, citations for noncompliance with standards, the payment of fines for violations of standards, and improvements in the physical safety of employees.

Factor 6, Personal Contacts – Level 6-3 – 60 Points

Personal contacts within the agency include safety engineers, safety and occupational health specialists, industrial hygienists, attorneys, and administrative law judges. During inspections, contacts include management officials, labor union representatives and employees. Contacts also include safety and occupational health specialists at other Federal agencies and state compliance representatives.

Factor 7, Purpose of Contacts – Level 7-3 – 120 Points

The purpose of the contacts is to obtain information, to explain the compliance program, and to gain adherence to published safety and occupational health standards. The individuals contacted during an inspection may contest or dispute alleged violations requiring the specialist to exercise patience and tact throughout the compliance review. The purpose of the testimony before an administrative law judge is to provide evidence of noncompliance with standards and to justify the agency's findings of hazardous working conditions in the inspected establishment.

Factor 8, Physical Demands – Level 8-2 – 20 Points

The performance of inspections requires regular and recurrent standing, walking, climbing, crouching, stretching, and lifting of moderately heavy items such as storage containers.

Factor 9, Work Environment – Level 9-2 – 20 Points

During inspections, the specialist is frequently exposed to operating machines and equipment, hazardous materials, high noise level, dust and fumes. Protective equipment and clothing may be necessary.

TOTAL POINTS – 2395

**SAFETY AND OCCUPATIONAL HEALTH SPECIALIST, GS-0018-11,
BMK #4**

Duties

Performs as a specialist at a military installation with facilities dispersed over a 1,000 square mile area and is responsible for explosive, missile, and range safety. The specialist provides guidance, recommendations, and assistance to supervisors and employees concerning established explosive safety methods and techniques.

- Continuously surveys the techniques and methods used in the transportation and storage of munitions such as general purpose and laser guided bombs, guided missiles, mines, chemical explosives, small arms ammunition, and pyrotechnics.
- Performs periodic and unscheduled inspections of base facilities, warehouses, and equipment maintenance operations and evaluates compliance with applicable regulations and hazard classification system; recommends measures and methods to correct safety and occupational health deficiencies.
- Investigates mishaps involving conventional and missile munitions utilizing hazard analysis and other analytical techniques to identify and control unsafe acts and hazardous conditions.
- Participates in "working sessions" called to plan the testing of munitions and assures the integration of explosive safety criteria in testing procedures; reviews test implementation directives for inclusion of appropriate safety criteria.
- Reviews purchase requests and procurement documents for the acquisition of explosives to ensure that explosive safety specifications conform with applicable regulations; serves on review teams to determine contractor compliance with contractual safety agreements.
- Prepares supplements to regulations and manuals proposed by higher authority for aircraft weapons safety and develops local regulations defining mishap prevention procedures applicable to the use of aircraft weapons.

Factor 1, Knowledge Required by the Position – Level 1-7 – 1250 Points

- Comprehensive knowledge of safety and occupational health regulations, methods, standards, and techniques applicable to high explosives, propellants, pyrotechnics, fuses, primers, and cartridge cases sufficient to identify and eliminate hazardous conditions arising from the loading and transportation of munitions.
- Knowledge of standard storage methods and hazard classifications for ammunition, explosives and solid propellants sufficient to minimize their potential for causing mishaps while in storage and possible injuries to personnel and damage to property.
- Knowledge of analytical techniques such as job hazard, fault-tree, and failure-mode analysis sufficient to perform investigations of mishaps involving conventional and missile munitions and review proposed tests for a variety of explosives.
- Knowledge of practices, standards, methods and techniques, equipment, materials, and activities, and supporting utility systems applied in the erection or modification of facilities for storing explosives or for test detonations. The specialist applies this knowledge to develop and implement protective features and practices to control onsite construction and equipment hazards.
- Practical knowledge of the methods, principles and techniques of ergonomics sufficient to minimize stressful conditions affecting employees in the work environment which may cause mishaps.
- Knowledge of and skill in the application of motivational methods sufficient to foster employee awareness of sound safety and occupational health procedures and use of protective gear.

Factor 2, Supervisory Controls – Level 2-3 – 275 Points

The supervisor makes assignments in the form of responsibility for the explosive safety work activity and provides general information concerning objectives, priorities, and expected completion dates. The specialist has relative independence to plan and carry out work while adhering to established policies and regulatory provisions. Unusual problems, conditions or hazards are referred to the supervisor for guidance and assistance. Work is judged for technical soundness and compliance with accepted safety and occupational health criteria.

Factor 3, Guidelines – Level 3-3 – 275 Points

Guidelines include agency manuals, regulations, directives, safety and occupational health standards, procurement contract clauses, standard textbooks, professional journals, and manufacturer catalogs. Frequently, the specialist is confronted with problems or hazards where available guidance is general and requires adaptation to meet specific requirements. For example, it may be necessary to test a solid propellant where guidelines are available but judgment and ingenuity in selecting and modifying safe operational procedures are required.

Factor 4, Complexity – Level 4-5 – 325 Points

Assignments require resourcefulness in the application of complex analytical methods to significant, high safety risk explosive hazards in a test environment involving a diversity of conventional and missile munitions. Testing of explosives under different environmental conditions requires the specialist to evaluate multiple, changing hazards. For example, the specialist determines the potential for serious mishap during the test explosion and modifies specialized safety procedures based on available, but often inadequate, data. Actual procedures are implemented, with adjustments as needed, by personnel responsible for the detonation.

Factor 5, Scope and Effect – Level 5-3 – 150 Points

The purpose of the position is to implement specialized explosive safety activities and eliminate or reduce the potential for injuries to employees and damage to buildings, aircraft, equipment, machines and other property. The specialist evaluates working practices and conditions identifying and resolving unsafe munition and missile handling, transporting, storing, testing, and disposal operations.

Work results affect the quality of inspection efforts conducted at the installation, the safety and occupational health of military and civilian personnel and the continued, uninterrupted use of equipment and facilities.

Factor 6, Personal Contacts – Level 6-3 – 60 Points

Intra-agency contacts include supervisors, engineers, procurement personnel, union representatives, medical and fire suppression specialists. Other contacts include construction contractors, safety and occupational health specialists and representatives from professional organizations and safety officials from the immediate community.

Factor 7, Purpose of Contact – Level 7-3 – 120 Points

The purpose of the contacts is to promote safe operating practices and conditions, to exchange information, and to convince reluctant, unconvinced supervisors, union representatives and contractors to comply with regulations and standards. Contacts also are made to persuade project supervisors to adopt more effective personal safety devices and gear.

Factor 8, Physical Demands – Level 8-2 – 20 Points

Work involves frequent inspections and onsite visits of explosive storage and testing facilities requiring continuous walking and standing.

Factor 9, Work Environment – Level 9-2 – 20 Points

The specialist is frequently exposed to potential hazards from chemical agents, equipment operations and fumes and dust from test explosions. Protective devices and gear are often required when performing onsite work.

TOTAL POINTS – 2495

**SAFETY AND OCCUPATIONAL HEALTH MANAGER, GS-0018-11,
BMK #5**

Duties

Serves as the safety and occupational health manager at a military installation and administers a safety and occupational health and fire prevention program for organizations engaged in printing and warehousing operations, transportation of materials, and equipment maintenance. The manager advises principal staff members of five separate, tenant commands of safety and occupational health requirements, standards, and procedures. Establishes, guides and encourages supervisor-employee safety committees to identify and eliminate hazardous equipment operations and unsafe working conditions.

- Plans, organizes, coordinates, directs, evaluates and financially manages a comprehensive safety and occupational health program. The goal of this program is to eliminate or control the risk of injury to personnel assigned to clerical, administrative, maintenance, warehousing, and light industrial occupations.
- Develops and prepares local safety and occupational health directives and regulations through adaptation of higher command instructions and policies formulated by other Federal Government agencies; prepares written procedures for implementation of safety prevention activities including motor vehicle mishap prevention, safe materials handling practices, and safe disposal of toxic chemical wastes.
- Inspects warehouses and contents, including storage and material handling operations, steam plant facilities, shop machinery and related mechanical processes, printing plant equipment, vehicle maintenance garages, protective clothing, and fire suppression equipment; applies regulations and standards and sound safety practices to detect hazardous operations and conditions and recommends proper safety and occupational health measures to eliminate or minimize the possibility of injury to personnel and damage to property.
- Coordinates safety and occupational health activities with representatives of the medical, personnel, security and other organizational components; for example, consults with medical specialists on type of protective apparel needed to prevent acid burns and with security specialists to plan and implement comprehensive traffic and pedestrian control measures.

- Investigates mishaps involving personnel or damage to machinery, tools, materials, or equipment; describes in writing mishap circumstances, illustrating automotive accidents with diagrams; analyzes actions or conditions contributing to the mishap and recommends measures to eliminate similar mishap occurrences. Compiles statistical data to determine mishap trends and to identify and apply proper preventive methods.
- Develops and carries out safety education activities including a safety orientation training series for new employees, and subject courses on motor vehicle accident prevention and forklift truck operation; promotes safety through poster campaigns, displays of safety equipment, and timely news articles; and participates in community and regional safety planning conferences.
- Reviews private contractor drawings and specifications for new construction and building alterations to determine the degree of compliance with standards and regulatory criteria; recommends procedures to control or eliminate hazardous operations or conditions.

Factor 1, Knowledge Required by the Position – Level 1-7 – 1250 Points

- Knowledge of safety and occupational health principles, practices, procedures, and regulations applicable to the performance of a full range of complex safety and occupational health management responsibilities at a military installation involving planning, organizing, directing, operating and evaluation of a safety and occupational health program for warehousing, printing, steam plant, transportation, and equipment maintenance operations.
- Knowledge of underlying psychological and physiological factors sufficient to plan and implement installation wide safety education activities and promote the safe working practices and sound equipment operation procedures essential to the achievement of an efficient and safe working environment.
- Knowledge of industrial work processes, material handling techniques, motor vehicle maintenance practices, compressed gases, shop machinery design, and industrial fire hazards sufficient to investigate and determine causal factors contributing to mishaps or incidents and resulting in hazardous working conditions.
- Knowledge of construction standards, methods, practices, techniques, materials, equipment, and utility systems sufficient to evaluate compliance with construction safety standards and devise innovative hazard control measures applicable to new building construction and industrial modifications.
- Skill in the interpretation of engineering drawing sufficient to identify possible hazardous conditions.

Factor 2, Supervisory Controls – Level 2-4 – 450 Points

The supervisor determines and sets the primary objectives and authorizes the resource level in support of the safety and occupational health management program. The manager in consultation with the supervisor and the commands serviced develops program requirements and time frames. The employee independently plans and carries out program functions, interpreting agency safety and occupational health policies and regulations, and coordinates activities with other program managers as needed in the resolution of hazardous operations and conditions. The manager informs the supervisor and principal staff personnel of potential controversial hazards and courses of corrective action.

Work efforts are normally accepted as technically sound and are reviewed to determine achievement of program objectives, policy implications, and compatibility with the activities of other organizations.

Factor 3, Guidelines – Level 3-3 – 275 Points

Guidelines include instructions and regulations from higher headquarters, safety and occupational health standards, procurement contract clauses, professional journals, manufacturer catalogs and Federal personnel procedures. The manager independently shapes and implements the program, using judgment and discretion in modifying and adapting guidelines to meet local situations. Judgment also is required in assessing different hazardous conditions and in applying established control procedures.

Factor 4, Complexity – Level 4-4 – 225 Points

As safety and occupational health manager plans, organizes, directs, and evaluates a fully developed safety and occupational health program. The work requires the development of local regulations and guidance, the identification, evaluation and control of hazardous operations and conditions, the promotion and fostering of safety education activities and the systematic analysis of mishaps.

The safety and occupational health manager evaluates and assesses warehouse and materials handling work processes, printing, steam plant, and machine shop operations, and vehicle and industrial maintenance practices to determine unsafe human-machine interactions, differing sets of hazardous environmental conditions and underlying mishap causes. The safety problems encountered often require the careful analysis of divergent and incomplete facts, complicating the selection of the appropriate control measure or safety techniques.

The resolution of unsafe work operations or conditions frequently requires adapting standard control methods or procedures to specific circumstances, such as devising special fire precaution measures for a printing plant where chemical and combustible material hazards are prevalent.

Factor 5, Scope and Effect – Level 5-3 – 150 Points

The purpose of the work is to manage a comprehensive safety and occupational health program at a military installation engaged in a range of industrial work processes and equipment maintenance operations. Through evaluation of occupational work practices and physical conditions and the application of hazard control measures, the manager strives to minimize the occurrence of mishaps. Work efforts affect the frequency and effectiveness of safety inspections conducted, the satisfactory control or abatement of hazardous conditions, and the physical safety of visitors, employee dependents and the workforce.

Factor 6, Personal Contacts – Level 6-3 – 60 Points

Personal contacts are with military and civilian managers, medical, procurement and personnel specialists, contractor representatives, officials of municipal and regional safety councils, other safety and occupational health managers and employees.

Factor 7, Purpose of Contacts – Level 7-3 – 120 Points

The purpose of the contacts is to explain and define safety and occupational health program objectives, to gain the support of tenant commanders, to implement safety and occupational health measures requiring changes in work operations, to convince skeptical contractors, supervisors, and employees to comply with standards and to exchange information with community safety officials.

Factor 8, Physical Demands – Level 8-2 – 20 Points

The performance of work duties requires frequent surveys of warehouses and a printing plant, new construction sites, machine shops and vehicle maintenance facilities necessitating prolonged periods of walking, standing and bending.

Factor 9, Work Environment – Level 9-2 – 20 Points

The manager is frequently exposed to operating machinery, hazardous materials, including chemicals and flammable liquids, acid fumes and construction hazards.

TOTAL POINTS – 2570

**SAFETY AND OCCUPATIONAL HEALTH MANAGER, GS-0018-12,
BMK #1**

Duties

Serves as a regional safety and occupational health manager for a recreation and land management agency and is responsible for administering a safety and occupational health

program encompassing extensive park lands, private concessions, including hotels and recreational facilities, vocational training centers, water treatment plants, maintenance shops, and a wide variety of public visitor attractions.

- Develops goals and objectives, prepares safety policies, procedures and guidelines, organizes and executes program budget, develops safety training curriculum and reviews proposed equipment procurement requests to insure the inclusion of necessary safety features.
- Surveys numerous warehouses, dormitory and camp structures, extensive recreational areas, and private concessions in a large geographic region to determine compliance with safety and fire standards; devises and implements measures to control or eliminate recognized hazards.
- Provides technical safety and occupational health guidance to supervisors responsible for hazardous activities pursued by thousands of public visitors such as use of snowmobiles, scuba diving, skiing, and mountain and cliff climbing, where standard safety criteria are not published.
- Serves as a member of a Board of Inquiry and investigates visitor mishap fatalities and prepares a chronological narrative of factors contributing to the incident, including photographs of the mishap scene, statements from witnesses, autopsy and pathological reports; summarizes Board findings, develops conclusions and makes recommendations for elimination or control of hazards identified.
- Reviews architectural and engineering drawings for new building construction, historic building preservation, and major alterations to recreational facilities; recommends changes as necessary to obtain compliance with standards and minimize risks to human life and damage to property.
- Conducts special studies such as the prevention and suppression of timber and range fires, the elimination of sewage pollution of potable water sources, and the resolution of safety problems caused by the blasting of uncleared sites for new construction.
- Implements a regional automated mishap data system and analyzes mishap trends to determine contributing factors and to devise measures which are economically feasible in controlling or eliminating actual or potential hazards to Job Corp and Youth Conservation Corp participants, public visitors, and employees.
- Promotes educational campaigns using posters, pamphlets, and literature through line supervisors and motivates visitors and employees to practice mishap prevention procedures for activities such as boating, hiking, camping, and operation of a variety of automotive vehicles.

Factor 1, Knowledge Required by the Position – Level 1-7 – 1250 Points

- Knowledge of safety and occupational health principles, practices, procedures and standards applicable to a full range of administrative duties sufficient to plan, organize, direct, operate and evaluate a safety and occupational health program involving a wide variety of hazards encountered in machine and repair shops, high risk recreation activities, aging hotel and dormitory structures, dry timber areas, and unimproved rural roadbeds dispersed throughout a large geographic region.
- Knowledge of communication and human relations techniques sufficient to encourage, persuade, and motivate public visitors from diverse backgrounds to observe safety and fire regulations; this knowledge and an understanding of pertinent physiological factors is also applied to foster a safe working environment by instilling in the employees a concern for following safe working procedures.
- Knowledge of job hazard analysis and other analytical techniques sufficient to perform mishap investigations and identify causal factors through interviews, study of the sequence of mishap events and environmental circumstances and by review of employee training records.
- Knowledge of building design, construction standards, methods and practices sufficient to evaluate compliance with safety and occupational health criteria applicable to floor loading, elevators, illumination, storage of toxic and flammable materials, ventilation, fire protection equipment, electrical, water and gas utilities and disposal of waste materials.
- Skill in devising innovative safety procedures to minimize potential for injury or property damage resulting from construction activities and equipment operations.

Factor 2, Supervisory Controls – Level 2-4 – 450 Points

The supervisor provides the manager with program objectives for assignments. The regional safety and occupational health manager independently plans the program, administering and implementing functional activities to fulfill regional goals. The preparation of regional procedures and evaluation of worksites are carried through to completion with referral to the supervisor only when unusual or controversial matters are encountered. The manager coordinates work with subject matter specialists on matters such as the procurement of equipment, employee or visitor injuries or fatalities, or road construction plans. Completed work typically is reviewed for effectiveness in accomplishing regional goals.

Factor 3, Guidelines – Level 3-4 – 450 Points

Guidelines consist of published safety and occupational health standards, agency directives, professional journals, manufacturing catalogs and standard textbooks. However, the manager frequently is confronted with potential or actual hazards involving popular visitor attractions and activities where there are no directly applicable standards or precedent control measures. Ingenuity and experience judgment are required to adapt broad safety criteria to specific

situations and develop new methods to eliminate or minimize risks of serious injury to persons and damage to property.

Factor 4, Complexity – Level 4-5 – 325 Points

Safety and occupational health management duties assigned to this position require the employee to investigate, analyze, and resolve many and varied high safety risk activities in hazardous environments. An additional complicating factor is the difficulty of predicting and preventing mishaps involving public visitors whose behavior in unfamiliar surroundings is uncertain. The manager must study, consider and assess safety problems such as those related to the widespread geographic location of permanent and seasonal employees and public visitors, deteriorating hotel and resident structures, the need for a 24-hour safety concern for dispersed resident youth trainees and campers, and the safety deficiencies in numerous private concessions.

Applicable safety standards and precedent methods are often inadequate or not available. This requires the development of new measures for controlling or eliminating hazards caused by a variety of environmental conditions, hazardous, unusual recreational activities, and thousands of acres of public lands exposed to potential fire damage.

Factor 5, Scope and Effect – Level 5-4 – 225 Points

The purpose of the work is to administer a regional program spanning a large geographic region, assess a broad range of safety program operations, and carry out measures which will eliminate or minimize unsafe conditions with the potential for causing personnel injury or property damage. The manager develops regional goals based on agency requirements and implements these or alternative criteria through regional program managers and local line supervisors.

Work efforts result in eliminating or reducing unsafe acts and conditions throughout a large geographic region and provide employees, youth program participants, and public visitors with a safe environment.

Factor 6, Personal Contacts – Level 6-3 – 60 Points

Personal contacts include regional program managers, line supervisors, safety committee representatives, other regional safety and occupational health managers, safety representatives at conferences, private business owners, community representatives, and public visitors.

Factor 7, Purpose of Contacts – Level 7-3 – 120 Points

The purpose of the contacts is to motivate and encourage management representatives, employees, and visitors to apply or observe safety practices. The safety and occupational health manager frequently is required to explain and justify proposed new procedures or modified operating practices to regional staff personnel who may disagree with these changes. The manager must also negotiate with skeptical private business owners concerning compliance with applicable safety standards and sound safety practices. Contacts with local safety officials are

established primarily to exchange information and to provide suggestions for regional safety campaigns.

Factor 8, Physical Demands – Level 8-2 – 20 Points

The performance of inspections and investigations of mishaps requires frequent standing and walking with occasional need to traverse rough terrain.

Factor 9, Work Environment – Level 9-2 – 20 Points

The work requires frequent exposure to operating machinery and equipment used in maintenance shops, garages, and on construction sites. The manager is also exposed to hazards caused by adverse weather conditions affecting travel on unimproved roads and hiking on narrow trails.

TOTAL POINTS – 2920

**SAFETY AND OCCUPATIONAL HEALTH SPECIALIST, GS-0018-12,
BMK #2**

Duties

As a safety and occupational health specialist assigned to an area office of a regulatory and enforcement agency, conducts inspections within assigned geographic boundaries of a variety of privately owned industrial, commercial, and maritime business establishments which employ specialized, complex work practices. He/she determines compliance with published standards, citations for violations, proposes fiscal penalties, and provides technical assistance to employers and employees to achieve safe working environments. The specialist periodically leads team evaluations of complex, very large enterprises that require extensive preplanning efforts, selection of team members with specialized expertise, and the coordination of a variety of simultaneous inspections.

- Plans, schedules and conducts inspections in establishments and worksites where there is a strong probability of encountering hazardous work processes and materials, and unsafe environmental conditions, involving substantial numbers of employees. Obtains immediate corrective action of conditions which are of imminent danger to life or limb. Many of the worksites inspected are characterized by sensitive labor-management relations requiring the use of persuasion to obtain the cooperation of both parties.
- Conducts closing conference with employer, reviewing hazards identified and violations cited, and advises employer of possible fiscal penalties and of employer rights and obligations under the Occupational Safety and Health Act.

- Conducts random visits to work places previously inspected by State compliance inspectors to determine whether or not the State program is as effective as the Federal compliance program in the identification and resolution of hazards.
- Performs inspections of private business establishments based on complaints received from employees and union representatives alleging failure by State compliance inspectors to enforce safety and occupational health standards and submits comprehensive reports on findings to State safety and occupational health management authorities.
- Testifies in contested court cases as a witness under oath and is subject to examinations conducted by attorneys representing both the agency and the employer.

Factor 1, Knowledge Required by the Position – Level 1-7 – 1250 Points

- Comprehensive knowledge of safety and occupational health principles and practices, techniques and procedures, regulations, and standards sufficient to enable the specialist to identify and evaluate occupational hazards in a wide variety of industrial, manufacturing, commercial, and maritime worksites and recommend control measures for environments characterized by unsafe work processes, high potential for mishaps, and difficult, costly abatements.
- Knowledge of general industrial building design, construction methods, standards, practices and techniques, installation and operation of utility systems sufficient to evaluate the compliance of new construction or structure modification work with applicable safety standards. The specialist uses this knowledge to develop new inspection procedures to determine if construction processes and equipment operations are consistent with applicable safety criteria.
- Practical knowledge of psychological and physiological elements and practices sufficient to assess the interface of employees with machines and equipment, and to encourage the use of safety motivation activities.

Factor 2, Supervisory Controls – Level 2-4 – 450 Points

The supervisor sets general objectives and makes assignments. The specialist establishes priorities and deadlines in consultation with the supervisor. The employee independently carries out the assignment, coordinating with other subject matter specialists as needed, and exercises considerable judgment and discretion in applying methods and procedures to resolve complex safety problems. Findings and recommendations are accepted as technically correct. Completed work is reviewed to assess accomplishment of objectives and compliance with agency regulations.

Factor 3, Guidelines – Level 3-4 – 450 Points

Guidelines include published Federal safety and occupational health standards, agency operation manuals and supplemental instructions, national consensus standards, standard textbooks, professional journals and past inspection reports. Available guidelines frequently are inadequate and require that the specialist exercise ingenuity in searching for applicable precedents to determine the seriousness of regulatory violations. In addition, the specialist uses resourcefulness in deviating from the standards and established practices to properly evaluate unconventional or new, hazardous work operations, materials, and recently introduced equipment and machinery. The specialist must exercise experienced judgment to modify past practices and devise new methods to control hazardous exposures.

Factor 4, Complexity – Level 4-5 – 325 Points

Assignments typically involve difficult inspections of high safety risk industrial, commercial, and maritime operations where there is a high probability of litigation. Entry into business establishments may require the obtaining of a Federal warrant, and the significant risks encountered often are not covered by an applicable, appropriate standard. As control of the hazards frequently requires major alteration of work operations affecting production schedules, the specialist must carefully consider the degree of exposure experienced by employees prior to determining the seriousness of violations observed. The specialist assesses hazard characteristics and proposes citations including fiscal penalties which may be substantial in amount.

Hazard abatement or elimination requires the adaptation of precedent techniques or modification of accepted procedures; often the specialist must strike a balance between the cost of applying control measures and the degree of control needed to abate the hazards to employee safety.

Factor 5, Scope and Effect – Level 5-4 – 225 Points

The purpose of the position is to evaluate the safety and occupational health programs of industrial, commercial, and maritime establishments and worksites characterized by hazardous, complex environmental conditions and where labor-management relations are often strained or tense. The specialist identifies unsafe operations and conditions in large establishments and analyzes subsequent abatement plans that are often expensive to implement, to determine their effectiveness in the control of hazards. She/he recommends alternative control actions or measures where management has failed to propose a satisfactory solution to the cited hazards. Work efforts impact on the programs of large firms with substantial numbers of employees.

Factor 6, Personal Contacts – Level 6-3 – 60 Points

Personal contacts within the agency include safety engineers, safety and occupational health specialists, industrial hygienists, attorneys, and administrative law judges. Contacts at inspection sites include management officials, State compliance inspectors, safety engineers, labor union representatives and employees. Contacts also include State occupational safety management representatives.

Factor 7, Purpose of Contacts – Level 7-3 – 120 Points

The purpose of the contacts is to acquire information, to explain agency compliance program objectives and to gain cooperation with published safety and occupational health standards. The specialist frequently is confronted with technical disagreements related to the interpretation of standards in the course of an inspection and must exercise caution and tact in the resolution of these differences of opinion. The purpose of the testimony before an administrative law judge is to present evidence of noncompliance with safety and occupational health standards by the employer and to justify the findings of hazardous working conditions.

When evaluating the performance of a State compliance inspector, the specialist must justify any findings of inadequate inspection procedures or improper citations by specifying the basis for such conclusions.

Factor 8, Physical Demands – Level 8-2 – 20 Points

The performance of inspections requires frequent standing, walking, climbing, crouching, frequent stretching and lifting of moderately heavy items such as materials used in the production process.

Factor 9, Work Environment – Level 9-2 – 20 Points

Inspections involve frequent exposure to operating machines and equipment, hazardous materials, high noise level, dust and fumes. Protective equipment and clothing may be necessary on occasions.

TOTAL POINTS – 2920

**SAFETY AND OCCUPATIONAL HEALTH SPECIALIST, GS-0018-12,
BMK #3**

Duties

As a safety and occupational health specialist in a district office of a defense agency performs surveys in private companies and firms engaged in research and development, testing, and manufacture of a wide variety of hazardous materials. Surveys are conducted to evaluate facility construction safety and occupational health programs and their effectiveness in eliminating or controlling hazards to Federal employees working onsite and to Federal Government property.

- The specialist conducts precontract award surveys, periodic inspections and special studies of heavy industrial plants producing, under contract to the agency, a variety of ammunition and explosives, toxic and flammable liquids, gases and chemical materials.

- Evaluates unusual, complicated manufacturing operations including machining and processing of new plastics, shock testing and vibration activities and the conversion of gas to liquid oxygen; assesses compliance with safety and occupational health criteria in the performance of product tests.
- Analyzes design plans for modification of plant facilities or renovation of structures and inspects shop machinery, power plants, electrical installations, hoists, elevators, pressure vessels, mobile equipment, automotive vehicles, and small power tools to determine compliance with occupational safety requirements.
- Examines pertinent contract clauses, interpreting terms, specifications and technical requirements and determines compliance by company managers with these criteria which may include the implementation of specific, new measures eliminating and controlling hazards to Government personnel, equipment and materials.
- Evaluates contractors safety and occupational health program including effectiveness of safety committees, content of safety directives and regulations, and results of employer efforts to solicit and use safety suggestions and to publicize safety activities.
- Prepares preaward survey reports of proposed contractor facilities indicating the contractor's capability to produce desired materials while complying with agency safety and occupational health requirements.
- Performs mishap investigations to determine causes and effect on Government personnel and property, interviews witnesses, sketches mishap scene, discusses hazards identified as causal factors, recommends operational changes, and prepares a final agency report of the results of the investigation.
- Analyzes contractor mishap data to determine trends including type of mishaps and equipment involved, and frequency and severity of mishaps to Government personnel and property.

Factor 1, Knowledge Required by the Position – Level 1-7 – 1250 Points

- Comprehensive knowledge of safety and occupational health principles, practices, procedures, regulations, methods, techniques, and standards which enables the specialist to conduct surveys in private plants manufacturing ammunition and explosives, flammable liquids, acids, and gases and to recommend measures eliminating or controlling hazardous operational processes, dangerous human-machine relationships and unsafe working conditions.
- Knowledge of building design, construction standards, procedures, methods and techniques sufficient to evaluate proposed and actual plant expansions or modifications including utility

systems and building materials. The specialist uses this knowledge to devise new techniques to resolve hazardous construction equipment operations and construction practices.

- Knowledge of a wide variety of hazardous and complex work operations and conditions found in foundries, forges, and boiler maintenance shops which enables the specialist to analyze mishap data, discover causal factors and to develop techniques to prevent or reduce the possibility of plant mishaps.
- Knowledge of low-level ionizing and nonionizing radiation sources sufficient to detect hazards to employees and to specify control measures in conformance with applicable standards.
- Practical knowledge of psychological and physiological factors related to human performance sufficient to evaluate the interaction between employees and equipment operations and to educate and motivate employees to apply good safety practices when completing their work assignments.

Factor 2, Supervisory Controls – Level 2-4 – 450 Points

The supervisor establishes overall objectives and assigns to the specialist continuing responsibility for a specific geographic area. The specialist plans the survey and onsite work, determining priorities and independently carries out assigned duties, resolving most hazards upon detection. The work is coordinated with subject matter specialists when highly complex problems arise. Completed work, including preaward survey recommendations, is reviewed for effectiveness in meeting program objectives.

Factor 3, Guidelines – Level 3-4 – 450 Points

Guidelines include directives and regulations, manuals and supplementary instructions, published safety and occupational health and fire standards, Nuclear Regulatory Commission radiation standards, and procurement contract clauses. Frequently, the hazards identified are the results of new, unconventional work processes involving the production of explosives and special machining techniques for exotic materials, where precedent control measures are only partially applicable. The specialist must exercise initiative, ingenuity and experienced judgment in the modification and alteration of control practices and abatement techniques applicable to serious hazards and acceptable to private manufacturing companies.

Factor 4, Complexity – Level 4-5 – 325 Points

Assigned surveys involve private manufacturing plants that are conducting research and development efforts, as well as the production of ammunition, explosives, and hazardous materials. The specialist devises novel analytical techniques to evaluate product test operations, the processing of toxic and compressed gases, compliance with complex contractual safety requirements and the suitability of safety equipment and apparel.

The work includes a thorough study of plant mishaps that are frequently related to explosives or highly poisonous substances, determinations of underlying causal factors, and the implementation of hazard control measures. This implementation affects production processes that often require the striking of a significant compromise between meeting manufacturing deadlines and complying with safety and occupational health standards.

The specialist develops new, specialized techniques and procedures to control specific hazards, such as exotic fuel usage, that will minimize or eliminate injury or property damage.

Factor 5, Scope and Effect – Level 5-4 – 225 Points

The purpose of the position is to evaluate safety and occupational health programs in private companies or firms manufacturing ammunition, explosives or other hazardous materials and to plan and develop specific criteria and alternative measures that will reduce or eliminate hazards to Federal employees and damage to Government property.

Work results affect the safety and occupational health programs and operational activities of large, complex major industrial companies and the environmental conditions where Government employees work.

Factor 6, Personal Contacts – Level 6-3 – 60 Points

Personal contacts in the agency include safety and occupational health specialists, procurement and medical personnel, and personnel management specialists. Contacts during site surveys include plant managers, safety officers, engineers, union representatives, community officials and industrial workers.

Factor 7, Purpose of Contacts – Level 7-3 – 120 Points

The purpose of the intra-agency contacts is to exchange information, coordinate work efforts and to discuss technical solutions. During surveys, the specialist seeks to establish an effective working relationship with plant managerial representatives and obtain compliance with contractual safety clauses. Technical disagreements often occur that require persuasion and negotiation. Discussions are also held with community officials explaining the risks of producing specific hazardous materials and the controlling safety and occupational health measures required by the agency under terms of the contract with the private manufacturer.

Factor 8, Physical Demand – Level 8-2 – 20 Points

Survey duties require regular and recurring walking, crouching and prolonged standing.

Factor 9, Work Environment – Level 9-2 – 20 Points

The specialist is frequently exposed to a variety of industrial hazards including irritant chemicals and fumes, shielded radiation substances, moving machine parts and high noise levels. Protective devices may be required when performing surveys.

TOTAL POINTS – 2920

**SAFETY AND OCCUPATIONAL HEALTH SPECIALIST, GS-0018-12,
BMK #4**

Duties

Serves as a specialist on the staff of the central office of a large regulatory and enforcement agency responsible for providing construction standards and regulations for application in the private and public sector throughout the nation. These standards and regulations cover high rise building construction, dams, bridges, tunnels, highways, and excavation, shoring, trenching and concrete form work. Regulatory criteria are also formulated for cranes, derricks, hoists, conveyors, motor vehicles, hand and power tools, ladders, guardrails, scaffolding, and personal protective equipment.

- Plans and develops construction safety criteria, guidelines, standards, and directives based on studies of technical data and information including findings published by the American Society for Testing and Materials, National Fire Protection Association, American National Standards Institute, National Safety Council, and Associated General Contractors.
- Evaluates technical comments on proposed standards received from agency field offices and private sector associations, societies and other interested organizations and individuals; determines if additional study, modification or deletion is required, prepares summary report of comments including controversial viewpoints and recommends approval of a final standard and promulgation in the Federal Register.
- Analyzes and critically reviews proposed national consensus standards developed by private construction associations, councils, and societies to ensure their technical feasibility, accuracy and applicability to construction industry requirements and to determine their possible adoption and use by the agency.
- Interprets existing standards including definitions, applicability, and relationship to other standards to representatives of major private contracting firms, labor unions, and trade associations; represents the agency at conferences and workshops and discusses technical

content in proposed or established standards with business managers, representatives of employee groups, and staff members of private organizations who are preparing safety construction criteria.

- Studies requests for private contractors for variance from applicable construction standards, evaluates possibility of serious risks and severe hazards identified with unsafe act or condition cited and recommends approval or disapproval of request.
- Conducts in depth studies of established standards to determine their current feasibility and applicability and recommends as appropriate their modification or the development of a construction standard where coverage is inadequate or nonexistent.

Factor 1, Knowledge Required by the Position – Level 1-7 – 1250 Points

- Comprehensive knowledge of safety and occupational health regulations, standards, principles, practices, techniques and procedures applicable to the national construction industry including work processes, equipment, machinery, materials, and abatement methods. The specialist applies this knowledge to develop national construction standards, guidelines and regulations to eliminate or control hazards in the construction industry.
- Knowledge of practical engineering methods, techniques, and construction materials and equipment sufficient to evaluate proposed safety criteria applicable to the construction of a wide variety of buildings and subsurface works including utility systems, excavations, trenching, shoring, flooring, tunnels, shafts, caissons and cofferdams in a wide variety of environmental conditions; prepares and develops guidelines demonstrating new techniques that control construction hazards.
- Skill in the interpretation of engineer drawing sufficient to understand proposed safety criteria which include specifications illustrating hazard control measures.
- Practical knowledge of psychological and physiological factors to evaluate the relationship of construction employees to a variety of working environments and to devise safety criteria fostering the performance of duties in a safe manner.

Factor 2, Supervisory Controls – Level 2-4 – 450 Points

Assignment objectives are set by the supervisor. The employee and supervisor mutually develop the study requirements and anticipated completion date. The specialist independently plans the study framework and carries out the assignment interpreting policies and regulations in accordance with objectives and solves most, if not all, problems arising in the development of the construction standards. Coordination with subject matter specialists both inside and outside the agency is occasionally initiated to ensure the consideration of the latest technical findings in the proposed standard. The work is carried through to completion with reference to the supervisor when only unusual controversial matters are encountered. Completed work is reviewed for consistency with objectives and attainment of study goals.

Factor 3, Guidelines – Level 3-4 – 450 Points

Guidelines include directives and regulations, published safety and occupational health standards, criteria developed by safety and trade organizations, professional journals and manufacturers' catalogs. Available, applicable guidance is often inadequate. The evaluation of new construction techniques, work methods, and hazards is hindered by the lack of information and precedents that typically are only partially applicable. The development of new hazard control methods in the form of a standard requires in depth consideration of private construction trends, criteria, literature, and agency inspection findings.

Factor 4, Complexity – Level 4-4 – 225 Points

Assignments require the development of construction safety standards, criteria, and regulations. The specialist performs a comprehensive evaluation of available technical safety material, publications, studies, research findings, and related literature.

The conduct of the study is complicated by the lack of information on some aspects of the construction industry, diversity of complex environments affected by the standards, differing technical viewpoints on the causes of serious mishaps, economic feasibility of applying proposed standards in private establishments, and confusing or opposing comments on draft standards reviewed by numerous organizations.

The control or elimination of construction hazards requires analysis of precedent techniques and subsequent elaboration of effective standards based on adaptations or extensions of accepted methods and techniques.

Factor 5, Scope and Effect – Level 5-4 – 225 Points

The purpose of the work is to develop construction safety standards requiring comprehensive assessment of available technical data, recommendations from agencies, effectiveness of private sector safety criteria, and pertinent literature. The specialist evaluates specific construction hazards and devises regulatory provisions including alternatives designed to eliminate or control unsafe acts and conditions.

Completed work impacts directly on worksite occupational safety practices and conditions throughout the nation and affects the safety programs of private construction firms.

Factor 6, Personal Contacts – Level 6-3 – 60 Points

Personal contacts include safety engineers, industrial hygienists, safety and occupational health specialists and medical personnel. Contacts outside the agency include representatives of private trade and contractor associations, labor unions, and state and local governments.

Factor 7, Purpose of Contacts – Level 7-3 – 120 Points

The purpose of the contacts is to obtain technical information, explain contents of proposed or established standards or regulatory criteria and reconcile or resolve technical differences of judgments concerning safety provisions and their application in the construction industry. The safety specialist must exercise tact and diplomacy in negotiating acceptance of standards by labor union and management representatives.

Factor 8, Physical Demands – Level 8-1 – 5 Points

The work is principally sedentary.

Factor 9, Work Environment – Level 9-1 – 5 Points

The work is performed in an office setting.

TOTAL POINTS – 2790

**SAFETY AND OCCUPATIONAL HEALTH MANAGER, GS-0018-12,
BMK #5**

Duties

Serves as a safety and occupational health manager at a military installation planning, organizing, administering, and evaluating a program involving diverse ground aviation and industrial safety and occupational health responsibilities. As safety and occupational health manager, directly serves commanding officer by fulfilling safety goals and objectives and carrying out program requirements in close cooperation with unit supervisors. Provides advisory safety services to a number of tenant commands.

- Develops and revises safety and occupational health instructions, rules and regulations applicable to ground aviation operations, industrial and marine fleet activities, and seeks cooperation of supervisors to eliminate unsafe working conditions and mechanical risks.
- Plans and carries out surveys evaluating aircraft servicing operations including rescue and firefighting vehicles and support equipment, one railroad engine and twenty railway cars; inspects taxiways, two runways, and aircraft parking areas, twelve hangars providing diverse aviation services, a fuel storage facility, piers, maintenance shops, warehouses, and private

concessions such as cafeteria and post exchange; prepares survey reports for the commanding officer identifying unsafe operations and conditions, specifying corrective actions required.

- Participates in command meetings involving private contractors to assess safety and occupational health hazards related to contractor activities such as repair or installation of onboard ship components, servicing carrier catapult gear, or maintaining ground facilities.
- Evaluates a wide variety of hazardous operations related to installation mission including disassembly and assembly of aircraft, movement of toxic and flammable materials (plastics, gases, chemicals), dockside loading and fueling of naval vessels, heavy machine work in metal manufacturing processes, testing of electrical and electronic gear, transportation of material using railroad and overhead cranes, and polyurethane painting of aircraft.
- Serves as member of the aircraft mishap board conducting investigation of ground accidents, preparing complete report of accident circumstances, formulates and establishes procedures for the reporting of all accidents; maintains accident records and evaluates accident data to detect trends and common patterns.
- Develops and conducts a comprehensive ground aviation safety education program through formal training sessions, guest lectures, and supervisor-employee discussions; publicizes safety articles and disseminates safety educational materials to organizational units.
- Insures that aircraft maintenance procedures and related accident prevention measures, aviation flight equipment, ground control approach and flight clearances criteria meet or exceed safety standards and military regulations.
- Consults and maintains liaison with other safety and health personnel such as industrial hygienists to resolve occupational health hazards, civil engineers regarding alterations of buildings, also with National Safety Council specialists to become familiar with the latest safety techniques and protective devices.
- Implements accident prevention measures and procedures applicable to thousands of annual public visitors participating in open house, ship visit and family day activities.

Factor 1, Knowledge Required by the Position – Level 1-7 – 1250 Points

- Knowledge of safety and occupational health principles, practices, procedures and standards applicable to a full range of complex safety and occupational health management responsibilities at a military aviation installation and requiring the planning, organizing, directing, operating and evaluation of a safety and occupational health program related to ground aviation, industrial and marine operations.
- Knowledge of aviation maintenance work processes and support equipment, airport ground operations, facilities and runway maintenance techniques, industrial work processes, shop

machinery design, material handling procedures and compressed gases sufficient to evaluate and determine causal factors contributing to accidents and resulting in hazardous working conditions.

- Knowledge of industrial construction standards, methods, practices, techniques, materials, equipment, and utility systems sufficient to determine compliance with building safety standards and devise hazard control measures applicable to airport ground facilities and supporting industrial shops.
- Knowledge of psychological and physiological factors sufficient to develop a ground aviation safety education activity for supervisors and employees, to motivate maintenance personnel to apply safe working practices and to persuade supervisors to accept changes or modifications where required to achieve a safe working environment.

Factor 2, Supervisory Controls – Level 2-4 – 450 Points

The commanding officer of the installation sets the general safety objectives and provides support resources to accomplish anticipated results. The supervisor and employee develop specific safety and occupational health requirements and submission dates. The manager independently prepares and carries out safety and occupational health program activities, coordinating with principal installation supervisors, and interpreting headquarters' policies and regulations in the performance of safety duties. Controversial safety matters are referred to the commanding officer for resolution. Work results are normally accepted as technically sound and reviewed only to assess effectiveness of safety and occupational health performance.

Factor 3, Guidelines – Level 3-4 – 450 Points

Guidelines include agency instructions, directives, and operation manuals, Federal safety and occupational health standards, standard textbooks, professional journals and past inspection summaries. Frequently these guidelines are insufficient requiring the safety and occupational health manager to vigorously pursue other sources of precedent application to successfully resolve hazards encountered. The manager evaluates unconventional work operations and new materials by deviating from established practices and extending sound safety criteria consistent with accomplishing the mission objectives in a safe manner. The manager also exercises experienced judgment, modifying past practice when necessary to control unsafe working conditions and machine operations.

Factor 4, Complexity – Level 4-4 – 225 Points

The safety and occupational health manager plans, organizes, controls and evaluates a program designed to minimize hazards in a ground aviation and marine environment where there are numerous industrial shop operations and moderate fleet activities. The manager reviews and evaluates a wide variety of aircraft maintenance practices and procedures, requiring an analysis of complex hazards involving combined mechanical and equipment operations and use of toxic and flammable materials in diverse hangar and industrial shop environments. She/he assesses the type of risk involved in marine repair on a variety of ships and adapts procedures to safety problems not readily resolved by standard criteria. These evaluations and assessments and subsequent control measures require a thorough study of occupational circumstances as often the appropriate action is unclear and hazardous consequences not initially apparent.

Factor 5, Scope and Effect – Level 5-4 – 225 Points

The purpose of the work is to administer a safety and occupational health program at a military installation. The manager develops courses of action to minimize or eliminate hazardous operations and conditions and devises alternative measures to meet unconventional circumstances which increase the risk of an accident. Work efforts result in minimizing or reducing unsafe acts and conditions throughout the installation, the marine facility, and attached tenant commands affecting military, civilian, and contractor personnel as well as protecting significant government property investments.

Factor 6, Personal Contacts – Level 6-3 – 60 Points

Personal contacts include unit officers and enlisted personnel, safety and occupational health committee representatives, civil engineers, industrial hygienists, private contractors, community representatives, and public visitors.

Factor 7, Purpose of Contacts – Level 7-3 – 120 Points

The purpose of the contacts is to achieve the support of unit supervisors in meeting program goals and objectives, to implement procedures and practices changing unsafe ground aviation, industrial, and marine operations, to convince skeptical contractors, supervisors, and employees to comply with safety and occupational health standards, and to exchange information with community officials.

Factor 8, Physical Demands – Level 8-2 – 20 Points

The performance of assigned duties requires frequent inspections and surveys of hangars, runways, warehouses, piers, vehicles and industrial shops necessitating prolonged periods of walking, standing, reaching, and bending.

Factor 9, Work Environment – Level 9-2 – 20 Points

The safety and occupational health manager is often exposed to operating industrial machinery and equipment, toxic chemicals, fumes, and material handling activities.

TOTAL POINTS – 2820

**SAFETY AND OCCUPATIONAL HEALTH MANAGER, GS-0018-13,
BMK #1**

Duties

Serves as a safety and occupational health manager in a military department and is responsible for administering a safety and occupational health program for an organizational component engaged in widely dispersed and diversified activities over a large geographic area. These activities include the maintenance of dams and reservoirs, levees, flood walls, and pumping stations; channel improvements and construction of military facilities.

- Plans, organizes, directs and controls a field safety and occupational health program covering an extensive geographic area and involving a large variety of agency operations including: (1) river revetment and maintenance activities requiring self-propelled major floating plants, dredges, and towboats functioning simultaneously at separate and remote locations; (2) three hydroelectric power plants; (3) seven reservoirs and a sewage and water treatment plant; (4) four navigation locks and dams; and (5) a repair base for barges, towboats and heavy construction equipment.
- Develops and directs the establishment of safety and occupational health requirements applicable to numerous private construction, maintenance, maritime, and manufacturing operations including three facilities collectively producing approximately 1,000,000 tons of concrete mat annually; provides specific procedures controlling or eliminating hazardous actions and conditions identified through analysis of construction plans or inspections.
- Plans and prepares regulations and guidelines applicable to a broad variety of recreational risks at reservoir sites visited by thousands of citizens yearly. Typically, the visitors engage in swimming, boating, water skiing, skin diving, camping, hunting, fishing, and motorcycle riding activities provided through privately operated concessions.
- Develops and conducts a safety education program to fulfill the employee development requirements of a diverse workforce engaged in hazardous occupations that include hundreds of seasonal, manual laborers working at scattered sites; equipment operators, deckhands, boat pilots, power plant electricians, mechanics, lock and dam operators, divers, machinists, welders, pipe fitters and barge and towboat mechanics.

- Directs the systematic compilation and analysis of mishap data and hazards to property, interprets and evaluates the accumulated information and eliminates or controls the identified hazard by applying standard techniques or devising new methods that are often required by high risk construction or maritime operations.
- Tests and modifies, as appropriate, various types of protective equipment such as life vests, safety ropes, and safety nets to ensure compliance with applicable safety criteria.

Factor 1, Knowledge Required by the Position – Level 1-8 – 1550 Points

- Expert knowledge of safety and occupational health management principles, practices and procedures and body of laws, regulations and precedent decisions applicable to high safety risk construction and maritime activities. This knowledge enables the safety and occupational health manager to recommend and implement new techniques and methods and resolve critical problems resulting from unique, changing work processes, numerous hazardous human-machine relationships, and multiple work functions including an extensive range of maintenance and repair shops.
- Knowledge of practical engineering methods and techniques, and hazard and fault tree analysis sufficient to evaluate and resolve occupational safety problems where standard methods are not readily applicable. Problems encountered typically result from hazardous river revetment construction operations, the need to modify a wide variety of personal protective equipment, and to devise and test safety controls for heavy equipment.
- Knowledge of marine recreational hazards and human behavior sufficient to develop and prepare guidelines and regulations, covering areas where precedent criteria are vague or absent, that will control or eliminate hazards to thousands of public visitors from diverse backgrounds who are participating in a wide variety of marine, recreational activities in dispersed locations.
- Knowledge of the practical identification and control techniques used by industrial hygienists and fire prevention engineers sufficient to coordinate application of safety and occupational health measures with specialists from these occupations.

Factor 2, Supervisory Controls – Level 2-4 – 450 Points

Safety and occupational health program objectives are set by the supervisor. The safety and occupational health manager and supervisor develop general requirements and mutually establish completion periods. The employee independently plans and executes the safety and occupational health program referring only controversial, unprecedented problems to the supervisor for advice or assistance. Work is coordinated with program managers as hazardous conditions require, to achieve a satisfactory solution to the problem. The manager interprets governing policy in accordance with specific program requirements and provides advisory assistance to line managers. Completed work is reviewed for effectiveness in accomplishing program objectives and compliance with departmental safety and occupational health policies.

Factor 3, Guidelines – Level 3-4 – 450 Points

The principal guidelines are agency directives, regulations, and manuals. Additional guidelines include published safety and occupational health standards, professional journals, and findings of engineering research organizations. While the guidelines typically provide some limited assistance, the safety and occupational health manager must determine when new or revised criteria are needed to resolve complex safety and occupational health problems. The manager must vigorously seek information, often difficult to find, showing construction and maritime occupational mishap trends in the organization, adapting or modifying standards to control detected, hazardous working conditions.

Factor 4, Complexity – Level 4-5 – 325 Points

As a safety and occupational health manager, plans, directs, controls, and evaluates a complex program involving a broad range of high safety risk construction and maritime hazards.

The employee applies new analytical processes to evaluate extremely difficult, changing work operations, specialized heavy equipment usage, safety training requirements for hundreds of unskilled, dispersed, seasonal manual laborers, and public safety requirements for thousands of scattered visitors participating in many recreational activities.

The safety and occupational health manager continually develops new, specialized safety techniques, measures and procedures to eliminate or control a spectrum of dangerous working conditions and processes and recreational hazards in diverse environmental settings.

Factor 5, Scope and Effect – Level 5-4 – 225 Points

The purpose of the position is to serve as a safety and occupational health manager: (1) analyzing and evaluating significant construction and supporting maritime activities in a large geographic area; (2) devising measures and alternative safety and occupational health procedures; and (3) controlling or eliminating risks to humans and hazards to property. The work requires the preparation and implementation of procedures and guidelines applicable to complex work operations and specialized heavy equipment use.

The work efforts impact on a principal agency operating component and affect the safety of employees, contractor workforce, and public visitors.

Factor 6, Personal Contacts – Level 6-3 – 60 Points

Interagency contacts include safety engineers, safety and occupational health specialists, managerial representatives, and line supervisors. Contacts outside the agency include middle managers representing construction firms, operators of private concessions and safety specialists from national societies.

Factor 7, Purpose of Contacts – Level 7-3 – 120 Points

The purpose of the contacts at this level is to explain and define safety and occupational health program objectives and to ensure compliance with standards, regulations, and sound, safe operating practices. Frequently, the manager must gain the support of reluctant, skeptical, middle managers and contractors to incorporate safety changes in work procedures and to accept and install new safety devices on equipment.

Factor 8, Physical Demands – Level 8-2 – 20 Points

The safety and occupational health manager performs on-site evaluations and inspections of river revetment projects, maritime construction works, and repair facilities requiring extended periods of walking and standing.

Factor 9, Work Environment – Level 9-2 – 20 Points

Onsite evaluations and inspections involve exposure to operating equipment and machinery, dust and fumes, and high noise levels. Protective gear is required.

TOTAL POINTS – 3220

**SAFETY AND OCCUPATIONAL HEALTH MANAGER, GS-0018-13,
BMK #2**

Duties

As a safety and occupational health manager for a major military training installation, plans, administers, and evaluates a comprehensive 24-hour a day program and serves as principal safety and occupational health advisor to program managers, analyzing and resolving diverse, high safety risk hazards. Program elements include the formulation of installation safety and occupational health directives, prevention and control of mishaps, fire protection, promotion of safety education, and implementation of a mishap reporting system including selective incident

analysis. The manager also conducts safety inspections embracing departmental reserve units and State militia facilities for an assigned State.

- Develops and prepares supplements to guidelines developed by a higher command and initiates written procedures implementing technical safety standards, codes and safety requirements for a wide variety of operations or activities including: (1) automotive and aircraft maintenance and repair activities for more than 15,000 vehicles and 300 helicopters; (2) airborne training for thousands of soldiers; (3) monthly reception, storage, transportation, and use of over 350 tons of high explosives and ammunition; (4) storage and dispensing of substantial quantities of flammable and toxic gases and liquids; (5) fire protection for over 4,000 commercial establishments including dry cleaners, service stations, cafeterias and recreational facilities; and (6) aviation safety for helicopter units.
- Plans, organizes and administers a scheduled series of comprehensive inspections of numerous carpentry, welding, painting, and metal shops, motor pools, major warehouses, and munitions and chemical storage structures.
- Identifies, analyzes and evaluates a variety of hazards for approximately 300 military and 450 civilian occupations, many involving complex changing work operations, diverse environmental conditions and human-machine relations such as (a) the use of flammable gases during live military training sessions; (b) large scale combat exercises involving thousands of soldiers and characterized by artillery and mortar firing, mass parachute drops of troops and equipment, and bombing runs by military aircraft; and (c) projected, future traffic patterns requiring the development and implementation of effective traffic controls.
- Develops and applies methods, techniques, and abatements to control or eliminate unsafe acts or conditions that arise from the introduction of new combat equipment and the construction or modification of structures and barracks.
- Plans and conducts safety education activities, including the hazards of parachuting, selects management candidates for specialized safety courses, develops and promotes safety campaign materials, ensures that safety standards are published in appropriate training manuals, and establishes numerous safety committees.
- Advises mishap investigation boards convened to ascertain causal factors precipitating fatalities, serious injuries or substantial property damage by recommending specific investigative techniques and the application of appropriate standards and sound safety practices necessary to the effective conduct of a comprehensive study that fully and accurately documents final conclusions.
- Analyzes mishap statistics and investigative reports to compare incident rates among command units; evaluates economic loss due to damaged property, severity of injuries sustained and environmental conditions surrounding mishaps; isolates causal factors and devises measures to control hazards detected.

- Represents the command at State and county government safety meetings involving the development of occupational safety training sessions for regional safety and occupational health specialists and the coordination of traffic safety campaigns throughout the assigned area.

Factor 1, Knowledge Required by the Position – Level 1-8 – 1550 Points

- Expert knowledge of safety and occupational health principles, practices and procedures, body of laws, regulations, and precedent decisions applicable to high safety risk aircraft maintenance and repair, transportation, storage and use of high explosives and flammable and toxic gases. This knowledge is applied to develop or extend, recommend, and carry out significant hazard control techniques that will minimize or eliminate unsafe operations and conditions critically affecting a major military readiness program.
- Knowledge of industrial work processes, the work practices of specialized warehousing and materials handling trades in very large warehouses, and the techniques of fire protection and suppression sufficient to organize and execute a comprehensive safety inspection activity.
- Knowledge of military tactical training operations sufficient to evaluate a wide variety of proposed maneuvers involving a diversity of heavy equipment and vehicles and night troop movements in rugged terrain. This knowledge also enables the safety and occupational health manager to recommend and implement techniques and measures that minimize the exposure of soldiers to injury and the possibility of serious damage to installation property.
- Practical knowledge of the techniques and procedures applied by industrial hygienists and fire protection engineers sufficient to coordinate with specialists of these occupations the control of hazardous conditions arising from military exercises where there are frequent detonations of explosives and ongoing aircraft maintenance operations.

Factor 2, Supervisory Control – Level 2-4 – 450 Points

The supervisor assigns overall objectives and authorizes support resources. The safety and occupational health manager and supervisor develop specific work requirements and due dates for the completed work. The safety and occupational health program is planned and carried out by the employee who interprets and applies safety directives and regulations consistent with fixed objectives, coordinating with subject matter specialists as needed. Complex or difficult problems are discussed with the supervisor to achieve agreement on a chosen course of action. Completed work is reviewed for compatibility with agency policies and achievements of objectives.

Factor 3, Guidelines – Level 3-4 – 450 Points

Guidelines consist of a broad range of technical material including directives, regulations, public laws, manuals, safety and occupational health and fire standards, textbooks, professional journals, and manufacturers' catalogs. The manager, however, must exercise judgment and initiative in developing new safety criteria as guidance is frequently unavailable or technically

inadequate. Resourcefulness is required to search for the latest, applicable technical findings and devise effective safety measures controlling aircraft maintenance and high explosive hazards.

Factor 4, Complexity – Level 4-5 – 325 Points

The safety and occupational health manager is responsible for planning, organizing, directing, coordinating and evaluating a complex, difficult 24-hour a day program for a broad occupational field involving a wide variety of changing, highly hazardous work and operational problems, environmental conditions, and dangerous materials. The employee devises new analytical procedures to identify and assess aircraft maintenance hazards, potential adverse effects of high explosive detonation, use of toxic gases in training exercises, and fire protection requirements. The manager innovates and applies safety and occupational health measures and procedures to resolve highly hazardous conditions and prescribes specialized safety practices to minimize the degree of risk to personnel and property.

Factor 5, Scope and Effect – Level 5-4 – 225 Points

The purpose of the position is to provide comprehensive safety and occupational health management services which include the assessment of complex safety program elements resulting from military requirements to conduct live combat training exercises. The work requires the planning and implementation of safety actions and procedures including a range of alternative courses of action to eliminate or control hazardous environmental and operational conditions. Program results affect the proficiency and readiness of a large combat organization of a military department.

Factor 6, Personal Contacts – Level 6-3 – 60 Points

Contacts outside the agency include state militia officers, reserve officers at state colleges and training centers, state and county government officials, private business owners, and safety managers.

Intra-agency contacts include military officers responsible for program operations, civilian personnel supervising industrial activities, safety engineers, and medical and paramedical specialists.

Factor 7, Purpose of Contacts – Level 7-3 – 120 Points

The purpose of the contacts with state militia officers and reserve officers at state colleges and training centers is to motivate and encourage compliance with safety and occupational health standards and sound safety practices. Operational changes ensuring the safe use of equipment, vehicles, and buildings usually require negotiation and justification. Private business owners operating commercial firms are contacted to obtain observance of fire regulations which requires persuasion and tact.

Intra-agency contacts are primarily to identify operational risks and to help management and supervisory personnel eliminate or control hazardous conditions.

Factor 8, Physical Demands – Level 8-2 – 20 Points

The work requires inspection of field sites and a wide variety of physical structures necessitating frequent walking, prolonged standing and occasional climbing.

Factor 9, Work Environment – Level 9-2 – 20 Points

Regular and recurring survey and inspection work exposes the safety and occupational health manager to industrial shop conditions where there are moving machine parts, acid fumes, irritant chemicals, and high noise levels.

TOTAL POINTS –3220

**SAFETY AND OCCUPATIONAL HEALTH MANAGER, GS-0018-13,
BMK #3**

Duties

Serves as safety and occupational health manager in a Federal regulatory and enforcement agency with responsibility for planning, developing, and implementing a regional program of providing consultative services and technical assistance to industry through grant arrangements with the States for achieving voluntary compliance by employers in the region (particularly small business) with safety and occupational health standards/regulations. The consultative programs are administered in four states having a wide range of industries, many of which have high hazard, high risk operations (e.g., general and heavy construction; maritime (longshoring and ship repairing); meat packing; petroleum refining; foundry and related steel making and fabricating; grain elevators; battery, paint, rubber and plastic manufacturing; pesticide formulation and manufacturing; construction, maintenance and operation of nuclear and conventional power plants; cotton ginning; experimental nuclear energy projects), employing nearly four million workers in more than 250,000 work places.

- Serves as primary representative for the regional consultative services program for monitoring and assisting in the administration of the programs by the States; providing guidance, direction and assistance in the development of plans, programs, procedures and operating systems for the implementation and direction of programs to achieve optimum compliance with agency safety and occupational health regulations, standards, Executive orders and Federal statutes; providing training and advice on qualifications of safety and occupational health compliance and advisory personnel; promoting voluntary identification of hazards and compliance by industries; pursuing effective hazard abatement programs and providing for timely and effective employer/employee information and education programs.
- Provides specific technical assistance, advice and program consultation to State agencies and employee/employer groups and associations in the interpretation and application of safety and occupational health standards and regulations, proper classification of violations and citations, adequate and reasonable abatement schedules, and resolution of complex and unprecedented safety and occupational health hazards that have broad impact on industries or industrial processes.
- Plans and conducts evaluations of onsite safety and occupational health consultative services administered by the states; makes recommendations for changes in operating policies, procedures, emphasis and staffs for achievement of viable, effective programs, and for continuing or discontinuing grants; and reviews and recommends approval or rejection of formal proposals from private sector sources for provisions of onsite consultative services.
- Establishes and maintains continuing liaison and cooperative relationships with employer organizations, safety and occupational health organizations, and professional organizations to promote acceptance and understanding of agency laws, standards and objectives, to resolve conflicts in the interpretation and application of agency standards/regulations, to solicit and encourage joint efforts on matters of mutual concern, and to coordinate program operations and projects.

Factor 1, Knowledge Required by the Position – Level 1-8 – 1550 Points

- Expert knowledge of national safety and occupational health laws, policies, regulations/standards, operational directives and methodologies, and objectives to plan and carry out regional programs or providing guidance, direction and technical assistance to State agencies and to evaluate their safety and occupational health programs involving workers engaged in diverse high hazard and high safety risk industrial operations where standards are often not directly applicable, inappropriate, lacking or are contested, (e.g., industrial overhead cranes, metal presses, noise, or electrical systems in hazardous locations).
- Knowledge of developments in new and changing industries and industrial processes presenting high hazard risks to workers (asbestos, silica, noise, lead, nuclear contamination) to effectively advise, counsel and assist State agencies in modifying their concepts, programs, methodologies, standards and regulations, to assure maximum protection to workers.

- Knowledge of State safety and occupational health organizations, laws, delegations of authority and responsibility, and policies regarding program objectives and emphasis, to ensure effectiveness of guidance and surveillance provided.
- Knowledge of and skill in communication and public relations techniques sufficient to effectively represent the regional office at conferences, meetings and consultations with State agencies, employer/employee groups, unions, national industry organizations, and special interest groups concerning program objectives and issues.
- Practical knowledge of the techniques, concepts and procedures applied by practitioners in the several safety and occupational health specialty areas (i.e., fire prevention and related engineering techniques, industrial hygiene) to successfully review, evaluate and advise on the whole range of safety and occupational health activities inherent in the programs.
- Knowledge of general and specialized industry practices, methods and techniques sufficient to develop appropriate safety and occupational health surveillance programs and activities and implement new techniques and methods to resolve critical problems resulting from the introduction of new technology, processes, chemicals and physical agents where existing criteria and standards are inappropriate.

Factor 2, Supervisory Controls – Level 2-4 – 450 Points

Receives general supervision in the form of broad areas of assignment, program objectives and policy guidance. Overall plans for accomplishing missions, including program emphasis, project plans, time tables, and resources required are discussed with supervisor after formulation. Critical, precedent setting matters are discussed with supervisor, however, as employee is a technical authority, work is normally reviewed only for effectiveness in accomplishing objectives.

Factor 3, Guidelines – Level 3-4 – 450 Points

Guidelines consisting of agency policies, standards, regulations, and statements of goals and objectives are very broad, requiring adaptation, modification and the development of solutions in a wide range of industrial settings where unusual and unprecedented problems regarding worker safety and occupational health are encountered frequently. Agency guidelines are particularly broad requiring extensive and innovative modifications of methodologies to meet unusual circumstances not addressed in guidelines in day to day program surveillance.

Factor 4, Complexity – Level 4-5 – 325 Points

Programs encompass both safety and occupational health matters affecting a great variety of industrial activities and work places in the private sector with diverse safety and occupational health conditions. Unique problems attendant to new industrial processes and environments present actual and potential hazards to workers for which guidelines and precedents are frequently inadequate or nonexistent. Special studies are carried out to identify the nature and extent of safety and occupational health hazards associated with particular industries, in

connection with new and emerging occupations and work processes, and in developing safety and occupational health standards, measures and/or control mechanisms for coping with identified hazards. Employee coordinates activities within the agency and with State agencies, and engages in planning and developing initiatives to bring about improvements in safety and occupational health programs.

Factor 5, Scope and Effect – Level 5-5 – 325 Points

The purpose of the work is to provide program and technical advice, guidance and assistance to state safety and occupational health agencies. Safety and occupational health programs administered are regional affecting many thousands of work places in the private sector, and hundreds of thousands of workers. The programs are designed to afford maximum protection to workers from known or potential safety and occupational health hazards and involve critical issues due to life threatening aspects of the hazards. Standards and guidelines are often inapplicable or absent and require the development of suitable methods and approaches and the resolution of economic, technological or program problems which serve as deterrents to the satisfactory elimination or abatement of hazards. Decisions and recommendations made with respect to the application and adaptation of standards and regulations have a substantial impact on shaping and influencing safety and occupational health programs of the various States.

Factor 6, Personal Contacts – Level 6-3 – 60 Points

Personal contacts include officials of State agencies and their safety and occupational health consulting staffs, trade and manufacturing associations, employer and employee groups, professional organizations and societies, and representatives of other Federal agencies concerned with safety and occupational health.

Factor 7, Purpose of Contacts – Level 7-3 – 120 Points

Personal contacts involve concerted efforts to influence, stimulate, guide, counsel and assist representatives of State agencies in developing and implementing viable and effective safety and occupational health programs; to explain, interpret and defend agency standards and policies; to negotiate and seek resolution of different points of views regarding violations, citations, penalties, and abatements; to encourage voluntary compliance by industry; and to elicit cooperation and support by professional, industrial, labor and private groups to enhance success of agency programs.

Factor 8, Physical Demands – Level 8-2 – 20 Points

Onsite visits to a variety of industrial operations require frequent walking and standing, some climbing and carrying of moderately heavy equipment.

Factor 9, Work Environment – Level 9-2 – 20 Points

Onsite visits require frequent exposure to operating machines and equipment, hazardous materials, high noise level, dust and fumes. Protective clothing and equipment may be necessary.

TOTAL POINTS – 3320

**SAFETY AND OCCUPATIONAL HEALTH MANAGER, GS-0018-13,
BMK #4**

Duties

Serves as a safety and occupational health manager in a Federal regulatory and enforcement agency with responsibility for planning, developing, and implementing a regional program of consultative, technical, training, and evaluative services for Federal agencies, Federal Field Safety and Health Councils, Federal Executive Boards and Associations and employee unions regarding the safety and occupational health of approximately 70,000 Federal workers employed in more than 2,000 Federal worksites dispersed among the six states in the region. These Federal employees are engaged in a wide spectrum of activities that include general and heavy construction; road building and repair; logging operations; construction, operation and maintenance of hospitals; maritime industries (stevedoring and the building and repair of nuclear and conventional naval vessels); river flood control and coastal navigational projects (dams, reservoirs, spillways, revetments, channel improvements, seaways, dredging, dock building and repair); research and development for military support systems, equipment and material, aerospace, and nuclear reactors; and airports and air navigational facilities.

- Serves as primary agency representative for the regional review of safety and occupational health programs of Federal agencies to assist them in the development of plans and programs to achieve and maintain compliance with agency regulations and standards, Executive orders and statutes as they affect the safety and occupational health of Federal employees.
- Evaluates safety and occupational health programs and activities of Federal agencies and provides evaluation reports of Federal agency and Federal Field Council safety and occupational health programs, with recommendations for changes or modifications.
- Provides technical assistance, advice and consultation to Federal agencies, Federal Field Safety and Health Councils, Federal Executive Boards and Associations in the development, interpretation and application of safety and occupational health standards and regulations as they apply to the Federal workplace and employees. Works with Field Councils in establishing their programs and operations; reviews qualifications of Council memberships; plans and formulates program objectives and goals; provides training and orientation to Council members through periodic meetings, conferences and seminars; and recommends

approval or disapproval of Council funding and formal charter, or recommends abolishment of previously approved councils.

- Provides for training assistance to Federal agency management personnel, supervisory employees, and employees' representatives. This assistance may be in the form of coordinating mutual programs with Field Safety and Health Councils, Federal Executive Boards and Associations, or personally conducting training programs.
- Plans and coordinates the investigation of Federal employee complaints and safety and occupational health catastrophes, fatalities, and serious accidents or incidents which threaten or impair the safety and occupational health of Federal employees, working individually or as a team leader; reviews findings of unsafe and unhealthful working conditions with Federal agency managers at local levels, intermediate levels and headquarters levels if necessary, and with employee groups; prepares formal findings and recommendations for alleviation or elimination of hazards; negotiates settlements and/or implementation of corrective actions with agency managers at the various organizational echelons involved and with labor unions representing Federal employees.
- Establishes and maintains continuing liaison and cooperative relationships with Federal agency management, Federal Safety and Health Councils, Federal Executive Boards and Associations, and professional organizations to promote acceptance and understanding of agency laws, standards and objectives; and to resolve conflicts in the interpretation and application of agency standards or regulations.

Factor 1, Knowledge Required by the Position – Level 1-8 – 1550 Points

- Expert knowledge of national safety and occupational health laws, policies, regulations and standards, operational directives and methodologies, and objectives sufficient to plan, develop, and implement regional programs requiring the provision of guidance, direction and technical assistance to Federal agencies, councils and boards. Applies knowledge to evaluate safety and occupational health programs for Federal employees engaged in diverse industrial operations that include high hazard, high risk construction and maritime occupations having significant potential for injury and death and which expose employees to hazardous physical agents, chemicals and processes.
- Knowledge of developments in new and changing industries and industrial processes involving high hazard risks to workers (i.e., asbestos, benzene, toluene, noise) to advise, counsel and assist Federal managers in modifying their programs, methodologies, standards or regulations, criteria and policies to assure maximum protection to workers.
- Knowledge of Federal agency organizations, chain of command, policies, and standards regarding program objectives to ensure effectiveness of guidance and surveillance provided.
- Knowledge of and skill in communication and public relations techniques sufficient to represent the agency at conferences and meetings with Federal agencies and councils,

employer/employee groups, unions, national industry organizations, interagency and special interest groups concerning program objectives and policies, special problems and issues.

- Practical knowledge of the techniques and procedures applied by practitioners in the several safety and occupational health specialty areas (i.e., fire prevention and related engineering techniques, industrial hygiene) sufficient to review, evaluate and advise on a range of safety and occupational health activities.
- Knowledge of general and specialized industrial practices, methods and techniques sufficient to develop safety and occupational health surveillance programs and activities and to modify or develop appropriate methodologies, standards, and guidelines.

Factor 2, Supervisory Controls – Level 2-4 – 450 Points

Receives general supervision in the form of broad areas of assignment, program objectives and policy guidance. Organizes project plans, time tables, and resources. Critical, precedent setting matters are discussed with supervisor, however, work is normally reviewed only for effectiveness in accomplishing objectives.

Factor 3, Guidelines – Level 3-4 – 450 Points

Guidelines consisting of agency policies, standards, regulations, operating procedures, and statements of goals and objectives are very broad, requiring adaptation, modification and the development of solutions to effectively advise and evaluate safety and occupational health programs administered in a wide range of industrial settings where unusual and unprecedented problems regarding worker safety and occupational health are encountered frequently. Agency guidelines are particularly broad requiring extensive and innovative modifications or methodologies to meet unusual circumstances not addressed in guidelines.

Factor 4, Complexity – Level 4-5 – 325 Points

Programs encompass both safety and occupational health matters affecting a great variety of industrial activities and workplaces in the public sector and diverse safety and occupational health conditions. Unique problems related to new industrial processes and environments present actual and potential hazards to workers for which guidelines and precedents are frequently inadequate or nonexistent. Special studies are carried out to identify the nature and extent of safety and occupational health hazards associated with particular industries, in connection with new and emerging occupations and work processes, and in developing occupational health and/or safety standards, measures or control mechanisms for coping with identified hazards. Incumbent coordinates activities within the employing agency and with Federal agencies, councils and boards, and in planning and developing special initiatives and strategies to bring about improvements in safety and occupational health programs.

Factor 5, Scope and Effect – Level 5-5 – 325 Points

The purpose of the work is to provide technical advice, guidance and assistance to Federal agencies administering safety and occupational health programs. The safety and occupational health programs are regional and affect more than two thousand Federal work places and approximately 70,000 workers. They are designed to afford maximum protection to workers from known or potential safety and occupational health hazards and involve critical issues due to life threatening aspects of the hazards; standards and guidelines are often inapplicable or absent which requires the development of suitable methods and approaches and the resolution of economic, technological or policy problems that serve as deterrents to satisfactory elimination or abatement of hazards. Decisions and recommendations made with respect to the application and adaptation of standards and regulations have a substantial impact in shaping and influencing safety and occupational health programs of the various Federal agencies.

Factor 6, Personal Contacts – Level 6-3 – 60 Points

Personal contacts include Federal agency managerial, advisory and safety and occupational health staffs, trade and manufacturing associations, employer and employee groups, professional organizations and societies, and representatives of other Federal agencies concerned with safety and occupational health.

Factor 7, Purpose of Contacts – Level 7-3 – 120 Points

Personal contacts involve concerted efforts to influence, motivate, guide, counsel and assist representatives of Federal agencies and councils in developing and implementing appropriate measures to resolve safety and occupational health problems, violations, and abatement schedules; to explain, interpret and defend agency standards and policies; to negotiate and seek resolution of differing points of view regarding violations, abatements, or high hazard occupations; to encourage compliance with agency standards and regulations; and to elicit cooperation and support by professional, industrial, labor and private groups to enhance program success.

Factor 8, Physical Demands – Level 8-2 – 20 Points

Onsite visits require regular and recurrent exposure to operating machines and equipment, hazardous materials, high noise level, dust and fumes. Protective clothing and equipment may be necessary.

Factor 9, Work Environment – Level 9-2—20 Points

Onsite visits require regular and recurrent exposure to operating machines and equipment, hazardous materials, high noise level, dust and fumes. Protective clothing and equipment may be necessary.

TOTAL POINTS – 3320

SAFETY AND OCCUPATIONAL HEALTH MANAGER, GS-0018-14, BMK #1

Duties

Serves as the principal safety and occupational health manager for a Federal agency providing health care services to diverse client groups and plans, directs, coordinates, and evaluates a comprehensive agency program. The programs require the development of safety criteria to eliminate or control serious hazards encountered in the construction, operation, and maintenance of agency-wide health care facilities and research laboratories. The program also covers complex, research, development and testing functions assigned to health care centers and laboratories throughout the United States and U.S. territories.

- Serves as the principal safety and occupational advisor to the agency administrator, justifies operating expenditures including staffing requirements, interprets new safety and occupational health legislation, and recommends the adoption or implementation of specific policies and procedures.
- Assigns program activities to subordinate organizational levels, assures that each echelon is participating fully in the program and evaluates safety requirements proposed for future facilities and new equipment procurements.
- As a consultant to principal agency program managers operating sixty public hospitals and approximately 300 health centers and clinics and serving American Indians, Alaskan Natives, members of the U.S. Coast Guard, Federal prisoners and Hansen's Disease patients, the manager provides extensive technical guidance and assistance on diverse, complex hazardous conditions in widely dispersed geographic regions that require specialized safety approaches.
- Plans, organizes and conducts an agency-wide comprehensive inspection activity, evaluates the effectiveness of occupational safety requirements in the work environment, assesses the degree of compliance with applicable regulations and standards, and develops changes and modifications to a broad range of work processes, equipment operations, and protective devices to minimize injuries to patients and employees and damage to agency property.
- Administers a management information system which generates mishap, injury, and illness data for the agency and identifies specific hazardous conditions that require in depth analysis and subsequent implementation of measures to control or eliminate unsafe conditions.
- Represents the agency by participating in national conferences convoked by the National Safety Council, American Hospital Association, Joint Commission on Accreditation of Hospitals, and National Fire Protection Association to develop and adopt occupational safety

and fire standards for hospitals, medical care facilities, and contractor operated research laboratories.

- Plans, develops, and implements agency-wide safety and occupational health standards and procedures for application during the construction phase of new health care facilities to eliminate potential hazards such as: (1) unsafe storage conditions for radioactive substances, flammable liquids and corrosive, toxic, and reactive chemicals; (2) inadequate laboratory air flow and improper sprinkling systems for fire suppression; (3) insufficient emergency electric power capability; and (4) deficient hazardous waste disposal sites.
- Directs agency-wide educational effort for health care managers and employees in occupational safety regulations, practices and procedures appropriate to a hospital or health care environment; this responsibility is complicated by the diverse background of the employees which ranges from employees residing in metropolitan areas to those living in remote rural communities.
- Consults and coordinates with other agency experts including industrial hygienists, physicians, environmental engineers, and fire prevention engineers in the resolution of difficult environmental hazards and the development of safety guidance and procedures.

Factor 1, Knowledge Required by the Position – Level 1-8 – 1550 Points

- Expert knowledge of safety and occupational health management concepts, principles, practices and procedures, body of laws, regulations, and precedent decisions that enable the manager to develop and recommend to the agency administrator critical programs that: (1) require modification of known safety and occupational health management techniques; and (2) are applicable to an extensive range of health care operations and highly hazardous health research activities.
- Knowledge of the latest technical developments in research laboratory safety exceeding current standard methods and techniques sufficient to formulate new safety and occupational health criteria and control procedures applicable to carcinogenic, chemical, and biological risks at numerous and diverse hospitals, clinics, and contractor operated research centers.
- Knowledge and skill sufficient to represent the agency at national conferences and intra-agency meetings on matters concerning national policies, problems and issues.
- Practical knowledge of the techniques and procedures applied by industrial hygienists and fire prevention engineers in hospitals and health research laboratories sufficient to coordinate hazard control efforts with specialists from these occupations.

Factor 2, Supervisory Controls – Level 2-5 – 650 Points

The safety and occupational health manager works under administrative direction only, and is independently responsible for setting program priorities and ensuring fulfillment of courses of

action to achieve goals. Completed work is considered technically authoritative and accepted without significant change. The supervisor is advised of controversial issues or other matters having significant program implications. Review is concentrated on the accomplishment of exceptionally demanding program objectives.

Factor 3, Guidelines – Level 3-5 – 650 Points

The manager works under broad policy guidance, agency regulations, and general standards. In the absence of published Federal Government safety and occupational health standards for health care facilities and laboratories engaged in health research activities, the manager develops guidelines and regulations for agency-wide application. Broad judgment and considerable ingenuity is required to interpret existing technical information and prepare criteria not previously established in the field.

Factor 4, Complexity – Level 4-5 – 325 Points

Assignments require performing a broad range of agency-wide management duties involving program development and administration, probing, innovative analysis of the program effectiveness, and the recommendation of new, specialized safety and occupational health procedures to eliminate or control high risk, unconventional, hazards in health research activities. As a recognized safety and occupational health management authority, he/she provides solutions to highly hazardous operational and research problems to principal program directors and agency safety and occupational health specialists.

Factor 5, Scope and Effect – Level 5-5 – 325 Points

The purpose of the work is to develop and administer an agency-wide safety and occupational health program and establish guidelines and criteria to control or eliminate serious hazards in health care facilities and research laboratories. The work is complicated by the nature of critical research studies which involve biological, carcinogenic, and chemical hazards under experimental conditions where criteria are vague and standards nonexistent. The manager provides technical expertise to principal program managers and directors of university research centers in the resolution of extremely complex, broad environmental problems.

The work affects the responsibilities of agency safety and occupational health managers, specialists, and safety personnel at private or public university research centers.

Factor 6, Personal Contacts – Level 6-3 – 60 Points

Contacts include principal agency program managers, safety engineers, industrial hygienists, and safety and occupational health specialists. Contacts outside the agency are made with university health research directors, safety and occupational health managers, and safety and occupational health specialists from other Federal agencies.

Factor 7, Purpose of Contacts – Level 7-4 – 220 Points

Contacts with top agency managers are to justify proposed agency policies, recommend substantive changes in the safety criteria affecting the construction and operation of hospitals and research laboratories and to negotiate the development, acceptance and application of new standards.

The safety and occupational health manager provides expert information concerning research activities involving virulent agents.

As a representative of the agency at national conferences, congresses, and interagency meetings, proposes, supports, defends or criticizes, innovative policies, standards, methods, techniques and practices and participates in efforts to arrive at acceptable solutions to sensitive safety and occupational health problems.

Factor 8, Physical Demands – Level 8-1 – 5 Points

The work is generally sedentary with occasional walking and standing when conducting onsite evaluations.

Factor 9, Work Environment--Level 9-1 -- 5 Points

The work is performed in an office setting with some infrequent exposure to hazards encountered in health care facilities and health research laboratories.

TOTAL POINTS – 3790

**SAFETY AND OCCUPATIONAL HEALTH MANAGER, GS-0018-14,
BMK #2**

Duties

Serves as director for an area office in a region of a Federal regulatory and enforcement agency. Assumes responsibility for ensuring safe and healthful working conditions for workers in a state through programs administered by the State under Federal grant arrangements and through direct Federal involvement in industries and work places excluded in State grants (maritime, area of exclusive Federal jurisdiction, and where the State has failed to promulgate Federal standards or regulations, i.e., access to medical records). Assigned safety and occupational health programs cover a range of industrial activities that include general and heavy construction, wood products, chemical production, textile mills and associated industries, paper milling and products, rubber and plastic products, foundry and primary metal operations, metal fabrication, alcohol production, nuclear energy (including nuclear waste disposal), research and development in aerospace and military nuclear and conventional weapon systems and maritime industries (ship

building and repairing, longshoring). Industries are dispersed over more than 50,000 private sector work places employing in excess of one million workers and include a variety of high hazard and high risk operations (i.e., heavy construction, maritime operations, foundries, nuclear industries, textile operations specializing in cotton products), and exposure to chemicals and physical agents for which standards, regulations and precedents are not directly applicable, lacking, controversial or contested (i.e., asbestos, cotton dust, lead, silica, noise, fiberglass, radio nuclides).

- Plans, develops and manages the activities of the area office within the broad framework of agency policies, goals and objectives and of legislation and Executive orders; develops specific procedural and programmatic guidelines and methodologies.
- Plans, develops, directs and evaluates comprehensive safety and occupational health surveillance and enforcement programs for industries and industrial operations which are not covered by State grant programs. Reviews work places to ensure compliance with safety and occupational health standards/regulations: encourages and assists employers in achieving voluntary compliance; proposes penalties for alleged violations; issues citations; and establishes abatement schedules.
- Plans and develops operational and program plans considering such factors as unscheduled priorities due to occupational catastrophes, fatalities, and worker complaints; complaints regarding State program administration; priorities relating to special industries and/or changing ad hoc agency programs in safety and occupational health; unique characteristics of the area with respect to industry mix and size, and geographical dispersion; and emerging safety and occupational health problems or trends.
- Provides leadership, guidance and advice to State safety and occupational health representatives in the interpretation of pertinent legislation, regulations and standards to conform to Federal requirements and to ensure achievement of sound program objectives and improved service to workers within the State.
- Evaluates State programs and provides recommendations for consideration of the agency head to continue or cancel the State plan; maintains day to day communication with the State designee to provide information on funding, case file reviews, and spot check monitoring visits; provides for comprehensive semiannual evaluations of State programs with specific recommendations for improvement of performance; provides technical assistance to State on all aspects of programs, including procedure and methodology aspects of inspections, violations, citations and abatement of hazards and in identifying and resolving problems in coordinating enforcement activities.
- Initiates and conducts informal conferences with employers, employees and/or their legal representatives to consider and resolve specific problems relating to standards, proposed citations and penalties, availability of financial relief (small business loans), proposed abatement procedures and schedules, rights of employers/ employees, and formal contest procedures. Makes determinations and initiates appropriate actions on issues. Attends and evaluates informal safety and occupational health conferences held by State officials.

- Works with State officials and agency legal staff in the development of contested compliance cases by reviewing the quality and validity of the technical aspects of cases and by serving as an expert witness.
- Participates with the agency regional administrator and top regional staff in regional program planning, evaluation, redirection and modification of policy and program criteria. Participates in special ad hoc projects affecting regional plans, programs, budget and staff development. As circumstances require, cooperates with regional officials in responding to significant occurrences such as occupational catastrophes, fatalities, imminent danger situations, and issues involving organized groups, (i.e., labor, professional and scientific organizations, industry associations, and State and local governments).
- Contributes through various employer and employee groups to a variety of programs designed to effect voluntary compliance and to inform the public of agency policies and objectives; disseminates informational material, gives speeches and participates in seminars; monitors educational and information programs sponsored by agency headquarters, State agencies and a variety of professional and academic organizations, and serves as principal contact with the news media in the State.
- Establishes and maintains liaison with other Federal regulatory and research agencies regarding worker safety and occupational health, and resolving jurisdictional issues.

Factor 1, Knowledge Required by the Position – Level 1-8 – 1550 Points

- Expert knowledge of national safety and occupational health laws, policies, methodologies, regulations/standards, operational directives, and objectives sufficient to plan, develop and administer statewide safety and occupational health programs for workers in extremely diverse private sector industrial operations which include high hazard, high safety risk occupations. Industries are dispersed in more than 50,000 worksites employing over one million workers.
- Knowledge of general and specialized industrial practices, methods and techniques sufficient to develop appropriate safety and occupational health surveillance programs that often require new approaches were established guidelines and methodologies are inappropriate or do not exist, for example, when new or changed industrial technology, process, chemical or other substances are initially introduced to work places creating hazards to employee safety.
- Knowledge of and skill in communication and public relations techniques to represent and serve as a spokesperson for the agency at conferences and meetings with employer/employee groups, unions, national industry organizations, professional groups, State and local government officials, interagency and public interest groups concerning agency policies, programs and objectives.

- Practical knowledge of techniques, concepts and procedures applied by safety and mechanical engineers, industrial hygienists, and safety and occupational health specialists to pursue and coordinate program activities.

Factor 2, Supervisory Controls – Level 2-5 – 650 Points

Works under the general administrative and broad policy guidance of a regional administrator located in a different geographic location. Discharges responsibilities with considerable freedom to effect actions necessary to improve Federal and State safety and occupational health plans and programs. Performance is evaluated in terms of level of efficient and effective accomplishment of objectives on a timely basis.

Factor 3, Guidelines – Level 3-5 – 650 Points

Broad agency policies, standards, and regulations are followed to the extent they are applicable. Often these require adaptation, modification, extension and the development of new guidelines and methodologies to implement and pursue effective programs to meet new and changing requirements in the work place. Available policies and guidelines are frequently inadequate, inappropriate or completely lacking. Program administration requires more than fulfillment of regulatory requirements and involves resolution of safety and occupational health problems, and hazards not addressed by agency guidelines. Employee has authority to deviate from such guidelines where they are not applicable in the situation encountered, and to innovate courses of action.

Factor 4, Complexity – Level 4-5 – 325 Points

Mission requires administration of Federal and State safety and occupational health programs involving a wide variety of high risk industrial activities and diverse work places. Studies and comprehensive analysis are initiated and carried out separately or jointly with State and other Federal agencies to identify the nature and extent of safety and occupational health hazards associated with particular industries and new and emerging occupations or novel work processes. Develops new safety and occupational health standards, measures or control mechanisms for coping with serious hazards which frequently are inadequately covered by existing guidelines.

Factor 5, Scope and Effect – Level 5-5 – 325 Points

The purpose of this position is to administer safety and occupational health programs throughout a state affecting more than 50,000 work places and more than one million workers, through direct Federal involvement or through State administered plans under Federal control and guidance. Conducts programs to afford maximum protection to workers from serious safety and occupational health hazards that if not eliminated or abated can lead to unpredictable results. Initiates efforts to prepare safety and occupational health criteria applicable to complex industrial work operations and safety and occupational health hazards for which precedents are inadequate or nonexistent. Decisions and recommendations made with respect to application and adaptation of standards and regulations have a profound effect in shaping and influencing

safety and occupational health programs and affect the work of both private and public sector safety and occupational health managers.

Factor 6, Personal Contacts – Level 6-3 – 60 Points

Personal liaison is initiated primarily with employer and employee groups and their representatives, State and local government officials, trade and manufacturing associations, professional organizations and societies, representatives of other Federal agencies and other groups concerned with safety and occupational health.

Factor 7, Purpose of Contacts – Level 7-4 – 220 Points

Contacts involve substantial efforts to negotiate and initiate appropriate measures to resolve serious safety and occupational health problems, violations and abatement schedules concerning safety and occupational health matters that often involve controversial or unprecedented issues; to represent and support agency policies and positions; to persuade, convince and encourage voluntary compliance by industry and labor; to elicit cooperation and support by professional, industry, labor, and private groups and associations to enhance success of agency programs; and to provide technical guidance and advice to industry and labor groups in implementing and improving their safety and occupational health programs and activities, and to State officials in the administration and improvement of State programs.

Factor 8, Physical Demands – Level 8-1 – 5 Points

Work is generally sedentary with occasional walking and standing.

Factor 9, Work Environment – Level 9-1 – 5 Points

Work is performed in an office setting with some infrequent exposure to hazards when visiting industrial worksites.

TOTAL POINTS – 3790

ENDNOTES

1. Federal Advisory Council on Occupational Safety and Health, Ad Hoc Committee on Review of GS-018 Tentative Standard, October 17, 1980.
2. Department of the Navy, Headquarters Naval Materials Command, Attachment to Letter to Office of Personnel Management, October 3, 1980.
3. C. Everett Marcum, Modern Safety Management Practice, Worldwide Safety Institute, Morgantown, West Virginia, 1978.