

# Position Classification Standard for Mine Safety and Health Series, GS-1822

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## SERIES DEFINITION

This series includes positions the paramount duties of which are to perform or supervise work in enforcing, developing, advising on, or interpreting mine safety and health laws, regulations, standards, and practices. Coverage includes positions concerned with underground and surface mining and milling operations associated with coal, and other metal and nonmetal mines. Positions in this series require: (1) practical knowledge of mining and/or milling methods and processes; (2) knowledge of safety and health practices, principles, programs, and hazards applicable to the mining industry; and (3) knowledge of current laws, regulations, and standards for mine safety and health.

This standard cancels and supersedes the earlier classification standard for the Coal Mine Inspection Series, GS-1822, issued in October 1968.

This classification standard has been developed for positions in a single Federal agency. Positions in other agencies may not be placed in this series without the approval of the Office of Personnel Management. The standard may be used, however, for making cross-series comparisons guided by sound position classification judgment.

## COVERAGE

Positions in this occupation are primarily concerned with making periodic inspections of mines; investigating accidents and reports of unsafe conditions in mines; investigating complaints filed by mine workers and their representatives; performing promotional, advisory, and administrative functions and developing policies, programs, regulations, standards and other guidelines for the purpose of furthering the safety and health of mine workers. Some positions in this series are involved in the determination and/or adjustment of monetary penalties assessed against violators of mine safety and health laws or regulations. The responsibilities of positions in this occupation extend to plants where ores removed from the ground are processed for distribution.

The Mine Safety and Health Series, GS-1822 has been expanded to include all types of mine inspection work. Positions involving the inspection of surface mining operations, which were formerly included under the Miscellaneous Inspection Series, GS-1899, are now classified to this series.

## EXCLUSIONS

Positions which involve work requiring the application of the principles of professional engineering and related mathematical and physical science concepts are classified in the appropriate professional engineering series, e.g., the [Mining Engineering Series, GS-0880](#), the [Safety Engineering Series, GS-0803](#), the [Civil Engineering Series, GS-0810](#), or a related series.

## OCCUPATIONAL BACKGROUND INFORMATION

Mine Inspectors and Specialists develop, enforce, promote, advise on, and administer laws and regulations concerning safety and health in mines and plants that are part of the mining process. A mine is defined as a pit or excavation from which mineral substances are taken. Minerals which are located in mines include a wide range of substances, including stone, coal, salt, sand, gold, and copper. A plant (sometimes referred to as a mill or a preparation plant) is a facility where ore that has been removed from the earth is processed into a distinct mineral of a particular size and consistency. This process typically involves separating the waste (e.g., rock, dirt, and miscellaneous other minerals) from the desired mineral, and cleaning, drying, sizing, grinding, crushing, heat treating, packaging, and shipping.

Federal laws and standards regulate a wide variety of hazardous and potentially hazardous conditions in and around mines. For example, the laws and regulations for underground and surface mines and mills address:

- Roof support (underground) and ground control (surface);
- Ventilation;
- Combustible materials and rock dusting;
- Electrical equipment;
- Electrical systems;
- Fire protection;
- Blasting and explosives;
- Hoisting;
- Loading and haulage;
- Equipment maintenance; and
- Accident prevention and safety programs.

The law provides that information be obtained about safety and health conditions in and around mines by making periodic onsite inspections of the facilities and by evaluating certain plans of operation and samples of conditions which mine operators submit periodically. Employees may issue Notices of Violation or Orders of Withdrawal when they find violations of health or safety regulations. The mine operator is then obligated to correct the violations within a reasonable period of time. When employees issue Orders of Withdrawal, they close the entire mine or a segment of the mine because of imminent danger to the safety and/or health of the workers. Under provisions of the law, mine owners may be fined for each violation.

Providing technical advice and guidance to mine operators on how to comply with health and safety requirements is another important aspect of this occupation. Mine operators that have small or inadequate technical staffs, in particular, utilize the capabilities of mine inspectors and specialists to help them solve mine safety and health problems.

## Practical Knowledge of Mining and Milling Methods and Processes

To carry out mine safety and health responsibilities, inspectors and specialists apply a knowledge of the processes, systems, methods, and equipment utilized in mining and milling. Enforcement of safety and health in coal mines and in other mineral mines has traditionally been separate, with inspectors and specialists typically working with one or the other of these programs. Any separation in the treatment of these two areas in this standard is simply a reflection of the present organizational makeup and is not an inherent characteristic of the occupation. Employees may be involved with underground mines, surface mines, or both. Some aspects of mining vary according to the characteristics of the mineral being mined and the geological and environmental conditions of the particular mine. Below, however, we have provided a general listing of the mining processes and systems that inspectors and specialists must know.

Underground mining processes and systems include: (1) transporting-workers, supplies, and ore, (2) mining the ore, (3) ventilating and controlling airborne contaminants, (4) supporting the roof, (5) maintaining mechanical and electrical machinery and equipment, (6) preventing and controlling fires, (7) draining water and (8) controlling noise.

Surface mining processes and systems include: (1) hauling workers, supplies, and ore, (2) mining the ore, (3) controlling airborne contaminants, (4) supporting walls, (5) maintaining mechanical and electrical equipment and machinery, (6) preventing and controlling fires, and (7) controlling noise.

Employees apply a practical knowledge of the design, operating characteristics, and maintenance requirements of each of these systems and processes and their interrelationships to determine whether the systems themselves and the equipment involved are being operated and maintained in safe condition and according to standards and regulations. This work requires a practical knowledge of the systems and processes, the design, capacities, and limitations of equipment and machinery involved, proper operation and maintenance practices, the health and safety problems related to the individual equipment, environment, and the overall functioning of the systems and equipment.

Employees hired at GS-9 and above enter with a broad and in-depth knowledge of the mining methods and processes as described above. However, all new employees, regardless of grade level, before being permitted to make independent decisions affecting mining companies, may spend several months receiving orientation, both classroom and on-the-job, in: (1) enforcement programs and procedures, (2) application and interpretation of Federal regulations and standards, and (3) the role and behavior of Federal inspectors in relation to mine operators and workers.

Employees hired at GS-5 and -7 also receive a longer period of classroom and on-the-job training which includes mining methods and processes.

## Inspector Functions

The great majority of positions in this occupation are directly involved in making onsite inspections and investigations. Federal laws require periodic safety and health inspections of total mining operations. Employees also perform more limited inspections usually directed at specific safety and health issues or problems, e.g., dust control, ventilation, or roof control. Limited inspections are initiated typically to gather information for special studies or to follow-up on previous inspections.

General safety and health inspections typically involve:

- Reviewing the mine operator's records of safety inspections; dust sampling, and accident reports;
- Examining the condition of the roof (underground) and high wall (surface) for stability and conformity with the approved roof or ground control plan;
- Measuring the flow of air and airborne contaminants;
- Examining the condition of equipment and machinery for proper maintenance and for permissibility in coal and other gassy mines;
- Observing work habits: whether workers follow good safety practices in performing duties, and wear or use appropriate protective equipment;
- Measuring noise levels;
- Examining electrical systems, cables, and equipment for adequacy,
- Maintenance, proper grounding, permissibility and protection from live currents;
- Examining the storage and transportation of explosives;
- Examining hoisting facilities;
- Examining condition of haulage ways and roadways for adequate clearances, grading, and maintenance;
- Holding a closing meeting with the mine operator and labor representatives to discuss results of inspection;
- Advising the mine operator on methods of improving operations and/or correcting violations.

Inspectors also investigate accidents, disasters, and complaints to determine whether laws and regulations have been violated and to identify the causes of accidents and disasters and determine how they might be prevented. Sometimes the cause(s) are apparent from a few simple observations and discussions. Other times, there may be no apparent explanation. Employees specializing in various areas of mining (such as electrical specialists and ventilation specialists) may join together to make an in-depth technical analysis of the conditions and circumstances surrounding the accident.

In rescue and recovery operations a mine inspector may issue such orders as deemed necessary to ensure the safety of any person in a mine. If determined appropriate, an inspector on the scene may direct and supervise rescue and recovery operations.

## Specialist Functions

Employees in this occupation also perform these other functions as part of the mine safety and health program:

- Evaluate the overall design and layout of roof control and ventilation plans for conformance with health and safety laws and regulations;
- Develop regulations, policies, guidelines, and enforcement programs;
- Evaluate requests from mine operators to vary from Federal standards;
- Administer and manage health and safety programs;
- Assess penalties for violations of the health and safety regulations;
- Hold conferences with mine owners and operators to review, consider, and adjust contested civil penalties;
- Advise mine operators and manufacturers of mine equipment on mine health and safety issues;
- Promote safety and health among mine operators and workers through participation in safety and health training programs, meetings, and related activities.

Some mine specialists are responsible for reviewing cases and citations of violations to determine the amount of proposed assessments. Assessments are civil penalties (fines) imposed for violations of the Federal Mine Safety and Health Act of 1977. Generally, the amount of assessments in regular cases is standardized based upon the application of a point-rated formula in regulations promulgated by the agency. However, in cases where violations are of such a nature or seriousness that it is not possible to arrive at an appropriate penalty by resorting only to the formula, "special assessments" are conducted. These "special assessments," which are in narrative form, go beyond the formula method in considering such issues as fatalities, serious injuries, patterns of violations, and unwarrantable failures to comply with mandatory safety and

health standards. As the agency gains experience in administering the system of civil penalties, it is possible that some types of violations now being treated as special assessments could become susceptible to coverage under the formula method.

Under current regulations, upon receiving notice of a proposed assessment, those who wish to contest a penalty have the right to request a conference with a representative from one of the agency field offices, and to submit additional evidence for consideration. It is within the sole discretion of the agency to grant or deny a request for a conference. Some mine specialists are responsible for conducting conferences with alleged violators (e.g., mine owners, operators, and employees or their representatives) to negotiate the resolution of contested assessments. Normally, the mine specialist conducting the conference is responsible for determining what adjustment (if any) in proposed penalties is appropriate. The assessment conference is normally the highest level of administrative review of proposed civil penalties within the agency. Failure on the part of alleged violators to further contest the agency decision on a proposed penalty, e.g., by requesting a hearing before the Federal Mine Safety and Health Review Commission (the Commission), results in the proposed penalty being deemed a final order of the Commission and not subject to review by any court or agency.

## TITLES

Basic titles specified in this standard apply to positions in this series at all grade levels, GS-5 through GS-15.

Mine Safety and Health Inspector is the basic title authorized for positions in this series primarily engaged in the enforcement of safety and health laws, regulations, and standards in metal and mineral mines" other than coal.

Coal Mine Safety and Health Inspector is the basic title authorized for positions in this series primarily engaged in the enforcement of coal mine safety and health laws, standards, and regulations.

Mine safety and Health Specialist is the basic title authorized for positions in this series engaged in the promotion and enforcement of mine safety and health other than by conducting or supervising the conduct of inspections and investigations. The work includes, but is not limited to: development of mine safety and health standards, policies, guidelines, and regulations; determination of proposed civil penalties (assessments) for violations; review and adjustment of proposed civil penalties; and advising on the application and implementation of safety and health standards.

(Electrical) is authorized as a parenthetical title to follow the basic title for any position in this series which requires an additional, in-depth knowledge of electricity equivalent to that possessed by a full performance level electrician. Parenthetical titles are not to be used for positions below grade GS-9. Such positions are developmental in nature and do not require specialized knowledge of the kind indicated by a parenthetical title.

Supervisory is authorized as a title to precede any of the above titles for positions that meet the criteria for titling of supervisory positions in the [Introduction to the Position Classification Standards](#), and in the [General Schedule Supervisory Guide](#).

Titling decisions (i.e., inspector vs. specialist) should be based on the primary focus of the position. As a rule, no one function is performed to the exclusion of all others. For example, inspectors perform advisory and promotional work in addition to conducting onsite inspections and investigations. Specialists, in areas such as roof control and ventilation, conduct some onsite inspections, and participate in accident investigations when their expertise is needed.

## GRADING OF POSITIONS

Positions should be evaluated using the benchmarks for this series to the extent possible. Factors in individual positions that cannot be matched to factors in the benchmarks may be point rated by reference to the Factor Level Descriptions. More complete instructions for evaluating positions are contained in the [Introduction to the Position Classification Standards](#). The benchmarks and Factor Level Descriptions are adequate for grading the vast majority of nonsupervisory positions in this series. Positions not fully covered should be graded by application of sound classification judgment and by analogy with, or extension of, the criteria of this standard.

Supervisory positions should be evaluated by reference to the [General Schedule Supervisory Guide](#)

### GRADE CONVERSION TABLE

Total points on all evaluation factors are converted to GS grade 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



## FACTOR-LEVEL DESCRIPTIONS

### FACTOR 1. KNOWLEDGE REQUIRED BY THE POSITION

This factor measures the nature and extent of information or facts which the employee must understand to do acceptable work and the nature and extent of the skills needed to apply those knowledges.

#### Level 1-5 - 750 points

- Knowledge of the processes, systems, methods, and equipment commonly utilized in mining, excavation, or other related industries. At this level having a basic mining knowledge means knowing what systems and processes constitute an operation and the characteristics of the systems, equipment, and methods utilized, the hazards inherent in the processes, and the work habits, practices, and techniques utilized by the workers to carry out a safe operation. Such knowledges would be acquired by experience in mining or other related industries or by a bachelor's degree program in fields such as mining, safety, health, life sciences, physical sciences, or industrial engineering.
- Knowledge of common safety and health practices relating to the use of personal protection equipment (e.g., hard hats, lamps, safety belts, breathing apparatus, etc.), the behavior of individuals, and general safety precautions and equipment relating to accident prevention and to survival and escape in case of accidents or disasters in and around mines.
- Ability to read and comprehend extensive bodies of government regulations, instructional manuals, technical publications, maps, and diagrams in order to succeed in training and subsequent levels in the occupation.
- Skill in oral and written communication in order to discuss mining operations and safety and health conditions with mine operators and workers, to answer questions about safety and health issues or regulations, and write inspection and investigation reports.
- To carry out assignments, employees must be able to work safely in and around mines. Assignments performed by employees at this level include: collecting, calculating, and recording the results of dust and air samples; measuring the velocity of the air in underground mines; reviewing records of inspections, sampling, accidents, injuries, and complaints which mine operators are required to keep; measuring and recording noise levels; collecting factual data relating to circumstances surrounding accidents, injuries, and complaints of hazards; and observing the attire, work habits, and behavior of miners.

## Level 1-6 - 950 points

- In addition to the knowledge described at level 1-5, level 1-6 includes: a sound practical knowledge of the processes, systems, methods, and equipment commonly utilized to mine and mill coal or other minerals. This includes a practical knowledge of mining systems and processes, the design, capacities, and limitations of various types of mining equipment and machinery involved, proper operation and maintenance practices the health and safety problems related to the individual equipment, the environment, and the overall functioning of the systems and processes. This knowledge is acquired by broad and responsible experience in the field of mine safety and health.
- A knowledge of broad occupational safety and health principles and practices applicable to the mining industry.
- After an initial orientation period, employees apply the above knowledges and training in the programs, policies, and procedures received during orientation to perform the following types of assignments:
  - Inspect mining and milling operations that involve processes and methods that are known to them, have good safety programs, and have had no significant modifications in operating methods, complaints, or problems since the previous inspection;
  - Advise mine operators, workers, and manufacturers on matters requiring clear-cut explanations of Federal mine safety and health laws and regulations;
  - Make preliminary evaluations of updated roof control plans to identify substantive changes in the design of the systems and/or
  - Participate in investigations of accidents and complaints by collecting information, interviewing workers, observing physical conditions, etc.

## Level 1-7 - 1250 points

In addition to the knowledges described at level 1-6:

- A thorough knowledge of the policies and programs of the agency, inspectional and investigative procedures, and issues and problems that affect the promotion and enforcement of safety and health in mines and mills.
- Knowledge of the technical production considerations and the safety and health considerations involved in planning, laying out, and operating mining systems. This involves:

- An in-depth knowledge of the capabilities and limitations of a wide variety of equipment and machinery under differing operating and environmental conditions.
  - Ability to infer from verbal and graphic descriptions the safety and health implications of mining and milling systems, processes, methods, and equipment.
  - Ability to interrelate the various systems and processes, that make up total mining and milling operations.
- Ability to apply broad safety and health principles and practices to complex or unusual safety and health issues and problems that are of a broad, substantive nature.
- Skill in applying the above knowledge and abilities to perform one or more of the following types of assignments:
- Advise operators on planning and modifying safe roof or ground control, ventilation, or electrical systems.
  - Advise manufacturers and mine operators on whether or not new or marginal equipment and methods or unusual adaptations or applications of existing equipment and methods are consistent with the intent of Federal safety and health laws and regulations.
  - Analyze serious mine accidents and disasters to determine the cause where evidence is obscure and any of a variety of conditions or occurrences may have contributed.
  - Advise mine operators, workers, and manufacturers, etc. on the interpretation of complex Federal mine safety and health laws and regulations to situations that are not clear cut.
  - Analyze problems relating to failure of systems which appear to conform to Federal safety and health laws and regulations, e.g., explosions at a mine operating under an approved ventilation plan and where no violation of the plan is apparent; a high incidence of roof falls at a mine using a particular roof bolting method.
  - Review, negotiate, and make adjustments to contested formula and/or special assessments which require the interpretation of complex Federal mine safety and health standards and regulations.
  - Make complete safety and health inspections of a variety of mining and milling operations evaluating safety and health conditions in all aspects of the operation and responding to whatever safety or health issues or questions arise.

### Level 1-8 - 1550 points

In addition to the knowledge described at level 1-7:

- Expert technical knowledge of the mining industry or of specialized areas of mining; or expert knowledge of broad areas of occupational health and/or safety.
- An in-depth and up-to-date knowledge of worldwide developments and issues in mining technology and occupational health and safety; and ability to determine their impact on health and safety in the mining industry.
- Ability to apply these knowledge to plan and direct major new agency wide programs on an experimental or on-going basis applying new theories and developments to resolve critical and heretofore insoluble problems in mine safety and health; to advise top agency and industry officials on the safety and health implications of critical and controversial new developments in mining; to plan and direct agency wide enforcement programs directed at new and unusual mine safety and health issues and conditions; and to analyze mine accidents, disasters, or other occurrences for their broader implications for the overall mine safety and health program.

## **FACTOR 2. SUPERVISORY CONTROLS**

"Supervisory Controls" covers the nature and extent of direct or indirect controls exercised by the supervisor, the employee's responsibility, and the review of completed work. Controls are exercised by the supervisory in the way assignments are made, instructions are given to the employee, priorities and deadlines are set, and objectives and boundaries are defined. Responsibility of the employee depends upon the extent to which the employee is expected to develop the sequence and timing of various aspects of the work, to modify or recommend modification of instructions, and to participate in establishing priorities and defining objectives. The degree of review of 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; or review only for adherence to policy.

### Level 2-1 - 25 points

Supervisors or more experienced employees assign specific tasks, usually in preparation for or in conducting inspections. Employees receive specific oral instructions or reference to written guidelines on how to carry it out.

Initially, employees are observed as they perform the more involved tests, calibrations, computations, etc., to determine that they are following the procedures correctly. Generally, they go about their tasks independently. When onsite, a more experienced employee is close by for advice if employees encounter conditions or situations hampering their ability to carry out assignments as instructed.

Completed work (usually in the form of test results, reports of observations, computations, etc.) is reviewed to determine whether instructions have been carried out properly and for the accuracy completeness, etc., of findings.

### Level 2-2 -- 125 points

Supervisors or more experienced employees assign specific aspects of total inspections or projects. The assignments are given with general instructions, e.g., to collect bottle samples of the air at each of the mine's face areas. The senior employee in charge of the overall project assigns priorities and deadlines.

Employees prepare for and carry out their assignments according to established procedures and guidelines, usually without additional instructions. The employee in charge is available for advice if unusual conditions are encountered.

Completed work is reviewed for precision, thoroughness, and consistency with related information or findings. The employee in charge assumes responsibility for taking action on the results.

### Level 2-3 - 275 points

Supervisors or more experienced employees make assignments in terms of the objective and set priorities and deadlines. They provide advice about unfamiliar or troublesome situations or conditions.

Employees plan and carry out their assignments independently according to established procedures, coordinating with other employees as appropriate. If they encounter unexpected problems for which precedents or accepted practices are not applicable, they contact their supervisors for advice.

Completed assignments which are typically in the form of inspection reports, notices of violations, orders of withdrawal, and recommendations for approval or disapproval of updated plans are reviewed for technical soundness and proper application of regulations and policies. Since notices and orders are issued before leaving the mine site, if the employee is onsite alone, the supervisor may review them after the fact.

### Level 2-4 - 450 points

Supervisors may assign employees a particular area of work for which they have continuing responsibility, e.g., conducting general inspections, investigations, and advisory service, or analyzing roof control plans and providing roof control advice for a group of mines; or they may give assignments one at a time or for a given time period. Priorities are fairly well determined by the law and the policies of the agency.

Employees plan and carry out their work independently interpreting procedures and adapting precedents according to the demands of the situation. They provide on-the-spot technical advice requiring interpretation of policy in areas where regulations and precedents are unclear to mine operators, manufacturers, or other employees. This kind of advice does not lend itself to supervisory review. Decisions that deviate from established policies and precedents are discussed within the agency before being communicated to members of the mining industry.

Reports are typically submitted as recommendations to a supervisor or manager who has signatory authority. The supervisor reviews, after the fact, notices and orders issued at the mine site. The employee's judgment is accepted as technically sound. Unusual or controversial findings are reviewed for impact on broad programs and policies of the agency.

### Level 2-5 - 650 points

The supervisor provides general administrative direction with assignments in terms of broad nationwide safety and health program objectives and resources of the agency (e.g., to reduce the number of nationwide injuries and fatalities resulting from mine disasters, to induce industry wide compliance with mine safety and health standards and regulations, and to abate hazardous conditions in many different geographic locations).

Employees independently plan, organize, and carry out major programs, projects, and studies (e.g., developing safety and health standards, or performing the review and adjudication of contested assessments).

Results of the work are considered as technically authoritative and are normally accepted without significant change. Decisions rendered by some employees (e.g., with respect to contested assessments) are usually final and binding on the agency, the U.S. Government, and the mining industry, unless contested before the Mine Safety and Health Review Commission. Work products in the form of recommendations and proposals for major policy changes are evaluated for such considerations as: availability of resources, accomplishment of overall program objectives, and furtherance of the agency's mission.

## **FACTOR 3. GUIDELINES**

This factor covers the nature of guidelines and the judgment needed to apply them.

### Level 3-1 -- 25 points

Guidelines include specific procedural instructions on how to perform duties involved in collecting data, measuring physical phenomena, observing conditions and behavior, etc. (e.g., sampling air quality, dust, and gases; measuring air velocity, noise levels, humidity; observing worker personal protection equipment; and observing the condition of first aid and firefighting equipment), and how to interpret findings. Employees adhere to these guidelines unless instructed to do otherwise by the supervisor or employee in charge.

### Level 3-2 - 125 points

Guidelines are the laws, regulations and standards issued by the agency, agency policy memoranda, and procedural manuals. Guidelines are nearly always available and applicable to assignments at this level. Assignments receive prior screening to avoid issues for which guidelines and precedents are not applicable. Judgment exercised in carrying out assignments relates to such decisions as: (1) which regulations and procedures apply in a given situation, e.g., what data is needed as evidence of a violation; (2) whether or not regulations have been violated, e.g., whether or not roof supports are installed or rock dusting is performed within a reasonable time after a new area is exposed; and (3) the seriousness of the violation, e.g., whether or not there is immediate danger of an explosion, roof fall, or other occurrence that would threaten the lives of workers. Employees contact their supervisors or senior inspectors or specialists for advice on handling situations where guidelines and precedents are unclear.

### Level 3-3 - 275 points

The guidelines are the same as those utilized at level 3-2. However, because employees carry out the full range of assignments and respond to technical problems in a wide variety of mines in the geographic area, the problems they encounter are more diverse and less predictable than those encountered at level 3-2 where assignments receive prior screening. Employees typically encounter conditions and circumstances for which guidelines and precedents are not completely applicable. They use judgment to apply general health and safety principles and agency policies to specific cases or problems, such as to inspect; render advice; evaluate plans; develop procedures and regulations involving application of current technology to mining systems and processes; or determine or make adjustments to proposed standard civil penalties (e.g., formula assessments) in accordance with formula criteria promulgated by the agency.

### Level 3-4 - 450 points

Positions at this level generally involve planning and conducting special programs and projects in areas where guidelines are broad health and safety principles (e.g., protection of life, prevention of accidents) stated in the laws and policies of the agency. Employees at this level use initiative and resourcefulness to: (1) develop new regulations and procedures which deviate substantially from tradition and are needed to enforce health and safety in mines where existing procedures and regulations are inadequate, e.g., in mines using new technology and unusual mining methods; or (2) research major industry wide health and safety problems for which new health and safety standards and inspection procedures are needed; or (3) determine or make adjustments to proposed civil penalties (e.g., special assessments) for very serious and/or unusual violations (e.g., serious injuries, fatalities, and patterns of violations) for which formula criteria promulgated by the agency are insufficient or otherwise not appropriate. Decisions rendered in contested cases often become administrative precedents within the agency.

## 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

Employees assist other inspectors or specialists by performing specific aspects of inspections and other projects. They collect samples, measure air velocity, noise levels, and humidity; observe work habits of miners and the condition and use of safety equipment; and review mine safety records. These duties, although varied, involve conditions and factors that are apparent and can be easily verified. They require using precise technical equipment and procedures and making factual observations.

### Level 4-3 - 150 points

At this level employees are authorized to represent their agency in an official capacity in dealing with mine operators. Assignments involve using techniques and practices with which employees have grown familiar during training. They normally involve conditions and situations for which established practices and procedures are fully appropriate, and policies and regulations are applicable and acceptable to mine operators and workers.

Employees continue to receive training and function in a somewhat restricted capacity as they participate in more difficult assignments as part of their preparation to perform at higher levels.

Assignments vary, but generally require examination and evaluation of conditions, equipment, and facilities involved in various phases of mining and milling. Employees decide how to approach each assignment based on the objectives of the assignment and conditions at the particular mining operation involved. Examples of assignments include:

- Analyzing updated roof control or ventilation plans to identify substantive changes.
- Advising mine operators on routine safety and health issues.
- Explaining clear-cut regulations and standards to mine operators, workers, manufacturers, and other interested persons.
- Inspecting mines or portions of mines for safety and health hazards.



## Level 4-4 - 225 points

At this level employees independently carry out a wide variety of assignments. Each assignment presents a unique combination of characteristics which fit no standard pattern. Variations that must be considered occur in the methods and systems themselves: the type and condition of equipment and facilities; the physical environment, the technical capabilities of the mine operator's staff; and the attitude of the mine operator and workers toward the safety and health program; and circumstances under which violations occur. Together they present a broad spectrum of well-known mine safety and health issues and problems. Employees vary their approach to each assignment by adapting established practices and precedents to the situation at hand. Decisions are based on data from a variety of sources which must be analyzed and interpreted with consideration of the impact and interrelationship of any characteristics to complete each assignment. Examples of assignments include:

- Advising mine operators and manufacturers on the safety and health implications of modifications in equipment, facilities, methods, etc., under actual operating conditions.
- Advising mine operators on how to correct or improve safety or health deficiencies in their operations.
- Making complete health and safety inspections of a variety of mines and mills where employees evaluate health and safety conditions in all aspects of the operations and respond to whatever safety or health issues or questions arise.
- Investigating accidents and incidents that do not involve fatalities, extensive damage, or persons in immediate danger, but for which it is impossible to predict prior to going onsite the exact course or depth of investigation needed.
- Conducting conferences with alleged violators (e.g., mine owners, operators, workers) and their legal and safety representatives to hear arguments, review evidence, and negotiate the adjustment of contested formula assessments i.e., proposed civil penalties determined through application of formula criteria set forth in rules and regulations published by the agency.

## Level 4-5 - 325 points

In addition to carrying out assignments described at level 4-4, employees at level 4-5 are recognized for their expertise in responding to the most serious crises and the most unusual, sensitive, and stubborn problems that occur in dealing with mines and mine operators. Employees must be sufficiently knowledgeable and innovative to develop unique approaches to conducting inspections, collecting data, applying standards and regulations, and enforcing safety and health measures in situations where established procedures and precedents would not be effective. During crises, the urgency of situations allows little time for debate or deliberation.

Complicating features include: (1) mining or milling systems, equipment, or methods for which the safety and health implications are not well-known; (2) persistent safety and health hazards

for which new and innovative solutions are needed; (3) mining or milling systems and processes which present special reliability or maintenance problems for which acceptable solutions have not been worked out; or (4) hard-to-resolve conflicts between production and economic factors of concern to the mine operator, and safety and health considerations.

Examples of assignments performed in addition to those described at Level 4-4 include:

- Planning and conducting special, in-depth technical analyses of total mining or milling systems. These analyses are often performed in connection with the establishment of totally new systems or processes proposing combinations of technology and environmental conditions for which safety and implications are hard to predict; or in response to requests from mine operators to make unusual deviations from Federal standards in areas of critical importance to the safety and health of workers.
- Planning and conducting analyses of major accidents where lack of (or destruction of) evidence, conflicting reports, and general discord hamper determination of the cause of the occurrence.
- Onsite monitoring and evaluating trial use of major new systems and equipment in actual operating settings.
- Developing new standards, regulations, and enforcement procedures to promote safety and health in major problem areas where differing needs must be taken into account of an industry wide basis.
- Advising other employees on how to handle unusual conditions and phenomena which they may encounter on their assignments.
- Advising on the application of standards and regulations to unusual or marginal situations.
- Conducting assessment conferences with mine owners, operators, and workers, or their legal and safety representatives to negotiate the adjustment of contested special assessments (i.e., patterns of violations, willful failures to comply with mandatory safety and health standards, fatal accidents, or other violations of a serious nature for which it is not possible to arrive at an appropriate penalty by resorting only to the formula method).

### Level 4-6 -- 450 points

Employees at this level conceive, plan, and conduct broad programs dealing with serious, industry wide safety and health issues and problems. Few, if any, established practices or precedents are available to assist in problem-solving; progress is difficult; and new techniques and approaches must be devised. Employees apply extensive technical know-how and originality to plan and coordinate programs, often including nationwide data collection, experimentation, and engineering research to develop an acceptable approach to the problem. Often, the work

results in new knowledge of mine safety and health which influences the development and use of mining equipment and practices throughout the industry.

## **FACTOR 5. SCOPE AND EFFECT**

This factor includes 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.

### **Level 5-1 - 25 points**

Employees perform routine tasks involved in preparing for and carrying out inspections and other projects. The assignments are given primarily for training purposes, but they also have the effect of relieving senior inspectors of some of the time consuming sampling and checking tasks involved in their work.

Employees perform specific aspects of overall inspections and other projects. The results of their work are used to determine whether or not further pursuit of a particular question or issue is necessary, and to lend support to the findings or results of the overall assignment.

### **Level 5-3 - 150 points**

Employees perform assignments that involve treating a variety of mine safety and health problems and issues for which there are generally known and accepted solutions. For example, they inspect mines and mills for safety and health hazards. They advise mine operators on application of Federal safety and health laws and regulations to particular problems and issues. They evaluate updated roof control and ventilation plans for compliance with requirements of Federal health and safety regulations and standards. Inspectors typically find some safety and health violations on each inspection. They issue notices of violations to the operators who are obligated to correct the violations within a reasonable period of time. If violations pose immediate danger, inspectors may close a segment of the mine or the entire mine until the danger is removed. Updated roof control and ventilation plans must be free from potential safety and health hazards before approval is granted. The work has impact on alleviating or avoiding safety and health hazards at the mines with which employees are involved. Work performed affects the well-being of mine workers in coal, metal, nonmetal, surface and/or underground mines.

### **Level 5-4 - 225 points**

In addition to performing work described at level 5-3, employees analyze and resolve a wide range of safety and health problems and issues that involve unusual conditions, problems and questions. The work performed at this level typically goes beyond safety and health issues and problems, for which corrective measures and solutions can be effected quickly and easily, to serious problems that are systemic in nature involving major mining or milling systems and processes. Work of this level may also involve the review, adjudication, and adjustment of contested civil penalties derived through application of standard formula criteria.

Work often affects the acceptability of total mining operations; determines whether or not some particular type of equipment or work method may be used; identifies the need for new regulations, standards, and enforcement procedures; or forms the basis for new inspection techniques that are eventually used throughout the organization. Decisions (e.g., on contested assessments) often affect many mines in different localities.

### Level 5-5 - 325 points

Assignments at this level involve resolving problems that are critical to the accomplishment of the agency's mission. In so doing, some employees develop new and revised program policies, standards, regulations, and procedures to implement legislative, technological, and other changes which affect a large segment of the mining industry. Work typically involves evaluating program accomplishments throughout the agency's field offices and modifying agency standards, regulations, inspection, and enforcement criteria to meet critical objectives of the mine safety and health program, e.g., eliminating specific occupational diseases, and/or preventing certain types of mine disasters. Other employees perform the administrative review and adjustment of contested civil penalties for violations of a serious, critical, or unusual nature for which formula criteria are not appropriate (e.g., patterns of violations, serious injuries, fatalities, and unwarrantable failures to comply with mandatory safety and health standards). The employee's work determines how inspectors and others in the agency's field offices carry out the program, and whether major aspects of the agency mission are accomplished. Work (e.g., on a project or case) frequently affects the well-being of mine workers in many mines throughout the country owned and operated by the nation's largest mining companies. Decisions on contested cases (i.e., special assessments) establish administrative precedents within the agency, and frequently affect the operations of many mines in different localities.

### Level 5-6 - 450 points

The work typically involves planning, developing, and carrying out agency wide projects and programs that are essential to accomplishment of the agency's mission. Assignments involve sweeping changes in major portions of health and safety regulations and standards, new enforcement programs, new agency wide organizational structures, or other special features of comparable breadth and originality. The assignments contribute substantially to reducing accidents and disasters in the mining industry on a long-term basis, which is the primary mission of the agency.

## **FACTOR 6. PERSONAL CONTACTS**

This factor includes face-to-face and telephone contacts with persons not in the supervisory chain. Contacts with supervisors are covered under Factor 2, Supervisory Controls. 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 this factor.

#### Level 6-1 -- 10 points

Personal contacts are typically with other employees in the same organization who are involved in mine safety and health enforcement (e.g., other inspectors, laboratory technicians, engineers, etc.).

#### Level 6-2 -- 25 points

Personal contacts are typically with employees in other organizations of the same agency (e.g., mine safety instructors, inspectors, or specialists from other field offices or headquarters, etc.).

#### Level 6-3 -- 60 points

Personal contacts are typically with other employees in the agency and with persons outside the agency involved in the mining industry (e.g., mine operators and their representatives, mine safety directors, mine superintendents, union leaders, and rank and file workers in the mines); and occasionally with representatives of the public and the news media.

#### Level 6-4 -- 110 points

In addition to the contacts listed in level 6-3, personal contacts are with high ranking officials on a national level of major mining companies, manufacturers, and unions; nationally recognized news persons; and top government officials at the state or national level.

### **FACTOR 7. PURPOSE OF CONTACTS**

The same personal contacts used in selecting a level for Factor 6 must be used in selecting a level for this factor.

#### Level 7-1 -- 20 points

The purpose is to obtain, clarify, or give facts or information related to safety and health, e.g., finding out or explaining how to calibrate and operate testing equipment and instruments; providing explanation of specific, clear-cut regulations and standards, or obtaining specific information about a mine's safety record, location of facilities, etc.

### Level 7-2 -- 50 points

The purpose of contacts is to plan and coordinate inspections and to advise on and resolve safety and health problems and issues. Examples of this level include planning with the operator and union representative the itinerary of an inspection of a large operation; analyzing and recommending solutions to safety and health problems; or arriving at mutually agreeable means of correcting substantive deficiencies. At this level, operators and workers contacted have cooperative attitudes.

### Level 7-3 -- 120 points

The difference in contacts at Level 7-3 from the previous level stems from the attitudes of persons contacted (i.e., an adversary relationship). Employees are assigned to work with persons who may be uncooperative, reluctant to implement particular safety and health measures required by the agency, or unwilling to accept proposed penalties determined in accordance with standard formula criteria. Employees must balance tact and persuasion with technical expertise and authority to carry out assignments. For example, contacts are for the purpose of convincing mine operators or workers of the importance of complying with mandatory safety and health practices that they disagree with or do not see the value of; obtaining information from mine operators about the cause of accidents or suspected violations when they are trying to avoid being held responsible; determining culpability (e.g., negligence); in rare cases, carrying out inspections of mines where the owner is unwilling to accept or is outwardly defiant of the role and authority of the agency; or negotiating the adjustment of contested assessments under formula criteria.

### Level 7-4 -- 220 points

Employees receive assignments where they settle controversies or disagreements between the agency and mine operators, mine workers, or their representatives. Employees analyze the issues and try to arrive at solutions that are acceptable to all parties. They participate in meetings, conferences, and hearings to allow presentation of arguments and diverse view points. Typically, the reason for these meetings or conferences is to resolve disagreements about the seriousness or cause of violations, accidents, or disasters which could not be resolved in the field; to debate the desirability of proposed regulations, standards, or enforcement programs; or to negotiate the resolution of contested assessments for very serious and/or unusual violations not subject to adjustment through application of formula criteria.

## **FACTOR 8. PHYSICAL DEMANDS**

This factor includes both the physical abilities needed to perform the work (e.g., specific ability and dexterity requirements) and the physical exertion involved in the work (e.g., walking, stooping, balancing, climbing, lifting). The frequency or intensity of physical exertion must also be considered, e.g., a job requiring prolonged walking involves more physical exertion than a job requiring occasional walking.

### Level 8-1 - 5 points

The work is primarily sedentary. Employees sit comfortably to do their work. They may occasionally visit mines or mills where they do considerable walking, climbing, bending, etc., but this does not warrant consideration in hiring or retaining them on the job.

### Level 8-2 -- 20 points

The work requires some physical exertion required by such activities as considerable walking, stooping, bending, and lifting and carrying equipment and materials in a laboratory, shop, mill, or mine setting. The equipment and facilities involved are relatively small for the mining industry and involve little climbing. There is adequate space, particularly height, to walk about. Although no unusual physical skills are required, the duration of the activity, usually most of the day, contributes to the arduousness of the job.

### Level 8-3 - 50 points

In addition to assignments described at the previous level, the work requires regular onsite inspections of mines where there are extended periods of crawling or stooping in restricted areas or climbing tall ladders to gain access to large equipment and facilities. Employees carry heavy testing and sampling equipment. They must be capable of making acute visual observations with very little light. Although no unusual physical skills are required, employees must be in good physical condition to work under such demanding physical conditions most of the day. Many employees are occasionally called upon to perform extraordinary feats, such as scaling high walls or shafts, or climbing high unprotected equipment, as part of special investigations or mine rescue activities. If such physically demanding tasks were a frequent and recurring part of their jobs to the extent that they needed to be considered in hiring or retaining employees, the jobs would be appropriately evaluated at the 8-3 level.

## **FACTOR 9. WORK ENVIRONMENT**

This factor considers the risks and discomforts in the employee's physical surroundings or work situation on a regular basis. Regulations governing pay for irregular duty involving unusual physical hardships or hazards are in Chapter 550, Federal Personnel Manual.

### Level 9-1 - 5 points

The work environment is a typical office situation. The area is adequately lighted, heated, and ventilated. Employees may occasionally visit mines or mills where conditions are similar to level 9-2 or 9-3. However, this does not warrant consideration in hiring or retaining them on the job.

### Level 9-2 - 20 points

The work environment in which employees spend a large portion of their time includes mines and mills where there are loud, vibrating equipment, conveyer belts, and other potentially dangerous moving equipment. Employees wear hardhats, safety glasses, hard-toed shoes, and other protective equipment as necessary.

### Level 9-3 -- 50 points

The work environment in which employees spend a large part of their time, whether on the surface or underground, contains elements of exposure to potentially dangerous situations. Underground mines have potential for roof falls, explosions, and fires. In some cases the ore being mined is radioactive. On the surface, employees work at great heights on large pieces of equipment, e.g., shovels, large dump trucks, etc., and are exposed to extreme outdoor weather conditions and explosives. Employees wear hardhats, safety glasses, hard-toed shoes or boots, carry self-rescuers and safety lamps, and take various other safety precautions.

## **OPM BENCHMARK DESCRIPTIONS**

### **COAL MINE SAFETY AND HEALTH INSPECTOR, GS-1822-05, BMK#1**

#### Duties

Receives classroom and on-the-job training in coal mine health and safety. Participates with higher level inspectors in preparing for, conducting, and reporting on inspections and investigation of underground coal mines.

- Prepares equipment and instruments needed for inspections;
- Conducts routine sampling, measurements, and observations while onsite;
- Calculates and reports results of sampling; and
- Prepares routine inspection reports.

#### 1. Knowledge Required by the Position - Level 1-5 - 750 points

General knowledge of the processes, systems, equipment, and methods involved in underground coal mining. Knowledge of the proper maintenance and use of safety equipment and proper behavior of individuals in and around mines. Ability to apply these knowledges to perform routine inspection tasks in and around mines.



## 2. Supervisory Controls - Level 2-1 - 25 points

Supervisor or lead inspector assigns routine tasks involved in preparing for and conducting inspections and investigations giving specific instructions on how to do the work. Supervisor or lead inspector is available to provide immediate advice and guidance during the course of the work.

Completed work is reviewed in detail.

## 3. Guidelines - Level 3-1 - 25 points

Follows specific written instructions on data collection and measurement, and use of safety equipment, health and safety precautions, etc.

## 4. Complexity - Level 4-2 - 75 points

Performs a variety of routine inspection duties using complex testing instruments and sampling equipment along with visual examinations to collect factual data and make observations of behavior and conditions that are readily apparent.

## 5. Scope and Effect - Level 5-1 - 25 points

Duties are primarily for training, but they also relieve senior inspectors of some of the routine preparatory, sampling, and reporting tasks involved in conducting an overall inspection or investigation.

## 6. Personal Contacts - Level 6-3 - 60 points

Personal contacts are typically with other inspectors and supervisors in the agency, State inspectors, and persons involved in the coal mining industry (e.g., mine operators and their representatives, union leaders, and workers in the mines).

## 7. Purpose of Contacts - Level 7-1 - 20 points

The purpose of contacts is to obtain access to facilities, employees, and information in order to perform duties described above and to provide and gather information from workers who participate in sampling.

## 8. Physical Demands - Level 8-3 - 50 points

Regularly participates in conducting onsite inspections of underground mines. This work requires continuous and strenuous physical exercise. Much of the time is spent walking, crouching, and standing. Carries for long periods of time heavy testing and sampling equipment. Climbs ladders in restricted areas to examine shafts. Occasionally, stoops all

day in mines one meter (three or four feet) high and crawls through unusually narrow areas. In underground mines the only light available is that provided by the light on the inspector's hard hat.

## 9. Work Environment - Level 9-3 -- 50 points

Participates in onsite inspections of underground coal mining which by its very nature is a hazardous and stressful operation. In addition to the characteristically dark, wet, and cramped environment, underground coal mines contain noxious gases and fumes, and the danger of explosions due to accumulations of coal dust and explosive gases, electrical fires, and roof falls.

**TOTAL POINTS - 1080**

# **COAL MINE SAFETY AND HEALTH INSPECTOR, GS-1822-07, BMK#1**

## Duties

Receives classroom and on-the-job training in coal mine health and safety. Participates with higher level inspectors in preparing for, conducting, and reporting on inspections and investigations of underground coal mines, by:

- Preparing equipment and instruments needed for inspections;
- Conducting segments of inspections while onsite;
- Calculating and reporting results of sampling;
- Preparing inspection reports;
- Instructing mine workers and safety officials in proper use of safety equipment and devices, accident prevention, sampling techniques, etc.

## 1. Knowledge Required by the Position - Level 1-5 - 750 points

General knowledge of the processes, systems, equipment, and methods involved in underground coal mining. Knowledge of techniques involved in accident prevention, rescue, and recovery; proper maintenance and use of safety equipment; and proper behavior of individuals in and around mines. Ability to apply these knowledge to perform inspection tasks in and around mines; participate in accident investigations; identify apparent hazards and violations; and advise and instruct mine workers about personal protection and accident prevention.

## 2. Supervisory Controls - Level 2-2 - 125 points

Supervisor or a lead inspector assigns portions of total inspection with general instructions. Prepares for and carries out assignments without additional instructions. Senior inspector, however, is available for immediate advice and assistance if problems are encountered.

Reports and findings are closely reviewed for technical accuracy. Negative findings are treated as preliminary. The senior inspector makes official confirmations and takes actions.

## 3. Guidelines - Level 3-2 - 125 points

Adheres to guidelines which include laws, regulations, and standards issued by the agency and the inspector's manual. Uses judgment to determine which regulations apply, which inspection procedures are most suitable, and to make preliminary decisions about whether violations or hazards exist. Supervisor or inspector-in-charge is available for advice and guidance if the inspector has difficulty applying established guidelines.

## 4. Complexity - Level 4-2 - 75 points

Performs limited aspects of total inspections. Assignments include making observations of conditions and behavior that are readily apparent testing and measuring physical phenomena, and advising workers on good safety practices and the use of safety equipment for personal protection, survival and escape.

## 5. Scope and Effect - Level 5-2 - 75 points

Performs limited segments of general health and safety inspections and accident investigations. Findings and reports provide preliminary information about health and safety conditions in mines and are used as the basis for further investigation, decisions, and actions by inspectors-in-charge.

## 6. Personal Contacts - Level 6-3 - 60 points

Personal contacts are typically with other inspectors and supervisors in the agency, state inspectors, and persons involved in the coal mining industry (e.g., mine operators and their representatives, union leaders, and workers in the mines).

## 7. Purpose of Contacts - Level 7-2 - 50 points

The purpose of the contacts is to plan and carry out segments of total mine inspections and to advise on routine health and safety issues and questions. During inspections, questions mine officials, union representatives, and workers about health and safety conditions in the mine. Discusses problems and possible hazards with them as encountered during the inspection. Maintains rapport with representatives of both sides. Discusses health and safety measures with workers and mine operators who are essentially cooperative and agreeable.

## 8. Physical Demands - Level 8-3 - 50 points

Regularly participates in conducting onsite underground inspections. This work requires continuous and strenuous physical exercise. Much of the time is spent walking, crouching, and standing. Carries for long periods of time heavy testing and sampling equipment. Climbs ladders through restricted areas to examine shafts. Occasionally stoops all day in mines one meter (three or four feet) high and crawls through very narrow areas. The only light available is from the light on the employee's hardhat.

## 9. Work Environment - Level 9-3 - 50 points

Participates in onsite inspections of underground coal mining which by its very nature is a hazardous and stressful operation. In addition to the characteristically dark, wet, and cramped environment, underground coal mines contain noxious gases and fumes, and the danger of explosions due to accumulation of coal dust or explosive gases, electrical fires, and roof falls.

**TOTAL POINTS - 1360**

# **MINE SAFETY AND HEALTH INSPECTOR, GS-1822-09, BMK#1**

## Duties

This is a typical entry level position for a mine inspector with substantial knowledge of mining and milling operations and health concerns in these operations. During the initial months after being hired, the inspector receives both on-the-job and classroom training in Federal mine enforcement regulations, standards, and procedures. Assignments are given to broaden knowledge of the great variety of mines with which the inspector will be working and to give the supervisor an opportunity to assess the inspector's skills and capabilities before sending him or her out alone. After completing this orientation period, conducts onsite inspections of metal and nonmetal mines, mills, and quarries to determine whether conditions conform with provisions of the law and related regulations and standards.

- Primarily conducts independent safety and health inspections of metal and nonmetal mines, mills, and quarries that have good safety records, and where the processes and systems are known to the inspector.
- Accompanies inspectors of higher grade on inspections of unknown mining operations or those that present unusual or unyielding safety or health problems, taking part in the work by performing assigned segments of the inspections.
- Participates with inspectors of higher grade in conducting investigations of mine accidents and disasters by performing some of the more routine aspects of the investigation, e.g., sampling air content, measuring air circulation, examining equipment for proper functioning, reviewing records of examinations and tests made by the mine operator.

- Promotes safety by giving instructions and demonstrations in first aid and mine rescue. Gives safety talks and lectures.
- Promotes and participates in conducting mine rescue competitions.
- Prepares written reports of inspections and investigations including notices of violations and orders of withdrawal.
- Testifies at judicial hearings regarding notices of violations and orders of withdrawal.

### 1. Knowledge Required by the Position - Level 1-6 - 950 points

Applies a sound, practical knowledge of: (1) the processes, methods, and equipment commonly utilized in mining and milling metals and nonmetals, and (2) general occupational health and safety principles and practices in order to evaluate mining operations based on a thorough inspection of the mining systems and processes involved and to identify hazards to the safety and health of the workers.

### 2. Supervisory Controls - Level 2-3 - 275 points

The supervisor schedules and assigns periodic inspections. The inspector plans and carries out familiar assignments without further instructions. Supervisor or a lead inspector provides advice or instructions in handling unusual or unfamiliar assignments. Inspection reports, notices of violations, and orders of withdrawal are reviewed after the fact to determine that regulations and policies have been applied properly and decisions are technically sound.

### 3. Guidelines - Level 3-2 - 125 points

Guidelines are the mine safety and health laws, standards and regulations, agency policy memoranda, and the inspector's manual which includes procedures for conducting inspections. Assignments receive prior screening to avoid issues for which guidelines and precedents are not applicable. The inspector exercises judgment in the course of inspections to determine which regulations have been violated, and the seriousness of violations. Contracts supervisor or senior inspector for advice about situations where guidelines and precedents are unclear.

#### 4. Complexity - Level 4-3 - 150 points

Inspects the equipment, work methods, and processes involved in various aspect of mining and milling metals and nonmetals in search of health and safety hazards. The environmental considerations and the work methods and processes vary from one mine to another. The mines, however, follow common industry practices and have adequate health and safety programs, with no serious violations, accidents, or complaints during or since the last inspection.

Examples of physical characteristics of the kinds of mines inspected independently include:

- A gravel pit with gently sloping walls, no blasting, and a few moderately sized crushers, shovels, and trucks.
- An underground metal mine using conventional drill and blast techniques where the roof is secure, and there are no gas problems. Recognizes unexpected hazards and deviations from common practices and makes a judgment about whether immediate action is necessary, or whether a decision can be deferred until later consultation with more experienced employees.

#### 5. Scope and Effect - Level 5-3 - 150 points

The scope of the work includes, but is not limited to, periodic inspections of a variety of metal and nonmetal mines, mills, and quarries for health and safety hazards. Inspections result in identification of health and safety hazards which the mine operator is obligated to correct within a reasonable period of time. If safety hazards pose an immediate danger, the inspector may order the operation or parts of the operation to be closed until hazards are corrected.

#### 6. Personal Contact - Level 6-3 - 60 points

Personal contacts are typically with other inspectors and supervisors in the agency, state inspectors, and persons involved in the mining industry (e.g., mine operators and their representatives, union leaders, and workers in the mines).

#### 7. Purpose of Contacts - Level 7-2 - 50 points

The purpose of contacts is to plan and carry out inspections and to advise mine operators and workers on health and safety issues and problems. They are generally cooperative and have an adequate health and safety program. Prior to and during the course of inspections, questions them about health and safety conditions at the mine. After the inspections, typically issues notices of violations and discusses them with the operator.

## 8. Physical Demands - Level 8-3 - 50 points

Regularly conducts onsite surface and underground mine inspections. This work requires continuous and strenuous physical exercise. Whether the inspection is underground or on the surface, much of the time is spent walking, crouching, and standing. Carries for long periods of time heavy testing and sampling equipment. Often climbs tall ladders from one level to another in underground mines to examine shafts, or to gain access to and make a thorough examination of large surface equipment, e.g., power-shovels and draglines.

## 9. Work Environment - Level 9-3 - 50 points

Inspects a variety of underground and surface metal and non-metal mines some of which are more hazardous and stressful than others. The greatest personal risks underground are roof falls, fires, explosions, and exposure to radiation, noxious gases, and fumes. On the surface, the greatest risks are working at great heights along high walls and on large shovels, dump trucks, etc., and exposure to severe weather conditions which, in the case of snow and ice, add an additional hazard to traveling along narrow roadways. Observes the storage, transportation, and use of explosives both underground and on the surface.

**TOTAL POINTS---1860**

## **COAL MINE SAFETY AND HEALTH INSPECTOR, GS-1822-09, BMK#2**

This is a typical entry-level position for a mine inspector who inspects underground mines, applying substantial knowledge of mining and milling operations and health and safety concerns in these operations. During the initial months after being hired, inspector receives both on-the-job and classroom training in Federal mine enforcement regulations, standards and procedures. Assignments are given to broaden knowledge of the variety of conditions and technology in mines with which the inspector will be working and to give the supervisor an opportunity to assess the inspector's skills and capabilities before sending him or her out alone.

Continues to receive classroom and on-the-job training on the more complex and critical duties of an inspector, such as determining the adequacy of ventilation system and roof control systems and evaluating electrical systems and equipment. After completing this initial orientation and training period, performs the following duties to enforce and promote the Federal mine safety and health laws:

- Participates with inspectors of higher grade in conducting periodic safety and health inspections of underground coal mines. Independently conducts most aspects of the inspection, leaving the more complex portions to the lead inspector.
- Independently conducts inspections of mines using methods and equipment with which he or she is familiar and which present no unusual conditions or problems.

- Prepares written reports of inspections and investigations including notices of violations and orders of withdrawal.
- Promotes safety by giving instructions and demonstrations in first aid and mine rescue. Gives safety talks and lectures. Promotes and participates in conducting mine rescue competitions.
- Testifies at judicial hearings regarding notices of violations and orders of withdrawal.

## 1. Knowledge Required by the Position - Level 1-6 - 950 points

Applies a sound practical knowledge of: (1) the processes, systems, methods, and equipment commonly utilized in underground coal mining, and (2) occupational health and safety principles and practices to evaluate mining operations based on a thorough inspection of the mining systems and processes involved and to identify hazards to the safety and health of the workers.

## 2. Supervisory Controls - Level 2-3 - 275 points

The supervisor assigns inspections of underground coal mines for purposes of evaluating health and safety conditions and practices. Instructions are in terms of overall objectives and priorities, e.g., to examine the adequacy of roof support and whether installation is performed safely; to measure noise and dust throughout the mine. The inspector follows established procedures and practices as described in the inspector's manual and learned on the job to plan and carry out assignments. If circumstances for which precedents and accepted practices are not applicable are encountered at the mine, contacts supervisor or a senior inspector for advice. On independent assignments the inspector presents his or her own findings without prior review. When inspectors are participating in assignments where someone else has the lead, the lead inspector may review findings for technical accuracy and appropriateness before presenting adverse reports to the mine operator.

## 3. Guidelines - Level 3-2 - 125 points

Guidelines are mine health and safety regulations, agency policy memoranda, and the inspector's manual which includes procedures for conducting inspections. Assignments are screened before the inspector receives them to avoid issues for which guidelines and precedents are not applicable. Exercises judgment in the course of inspections to determine which regulations and procedures apply in specific situations, whether regulations have been violated, and the seriousness of the violations. Contacts supervisor or senior inspectors for advice on situations where guidelines and precedents are unclear.



#### 4. Complexity - Level 4-3 - 150 points

Primarily participates in onsite inspections to identify health and safety hazards in underground coal mines. Examines and evaluates equipment, methods; and processes involved in most aspects of underground coal mining. The mining methods and equipment utilized vary from one mine to another, but are common throughout the coal mining industry. Recognizes unexpected hazards and deviations from common industry practices and makes a judgment about whether immediate action is called for, or can be deferred until later consultation. Continues to receive training in handling the most controversial and unusual problems encountered in coal mining.

#### 5. Scope and Effect - Level 5-3 - 150 points

The inspector independently conducts inspections of most systems and processes in underground coal mines. These inspections may be limited to a particular health or safety issue or problem or they may be total segments of a complete inspection. Most inspections result in the identification of health and safety violations which the mine operator is obligated to correct within a reasonable period of time. If safety hazards pose an immediate danger, or if the mine operator refuses to correct a violation in a reasonable period of time, the mine or parts of it may be closed until they are corrected.

#### 6. Personal Contacts-Level 6-3-60 points

Personal contacts are typically with other inspectors and supervisors in the agency, State inspectors, and persons involved in the coal mining industry (e.g., mine operators and their representatives, union leaders, and workers in the mines).

#### 7. Purpose of Contacts - Level 7-2 - 50 points

The purpose of contacts is to plan and carry out inspections and to advise mine operators and workers on health and safety issues and problems. Operators and workers are generally cooperative and have an adequate health and safety program. Prior to and during the course of inspections, questions them about health and safety conditions at the mine. Issues notices and orders, and upon completion of the inspection confers with mine management to discuss health and safety conditions and violations. During initial assignments, notices and orders may be issued by a senior inspector.

#### 8. Physical Demands - Level 8-3 - 50 points

Regularly conducts onsite inspections of underground coal mines. This work requires continuous and strenuous physical activity. Much of the time is spent walking, crouching, and standing. Carries for long periods of time heavy testing and sampling equipment. Often climbs ladders and stairways through restricted areas to examine shafts. Occasionally stoops all day in mines one meter (three or four feet) high.

## 9. Work Environment - Level 9-3 - 50 points

Inspects underground coal mining which by its very nature is a hazardous and stressful operation. In addition to the characteristically dark, wet, and cramped environment, underground coal mines contain noxious gases and fumes, and the danger of potentially explosive coal dust or gases, electrical fires, and roof falls.

**TOTAL POINTS- 1860**

## **COAL MINE SAFETY AND HEALTH INSPECTOR, GS-1822-09, BMK #3**

### Duties

This is a typical entry-level position for a mine inspector who inspects surface mines, applying substantial knowledge of mining and milling operations and safety and health concerns in the operations. During the initial months after being hired, inspector receives both on-the-job and classroom training in enforcement of Federal mine regulations, standards, and procedures. Assignments are given to broaden knowledge of the variety of conditions and technology in mines with which the inspector will be working and to give the supervisor an opportunity to assess the inspector's skills and capability before sending him or her out alone.

After completing this initial training and orientation period, performs the following duties associated with enforcement and promotion of the Federal mine safety and health laws:

- Independently conducts safety and health inspections of surface coal mines, preparation plants, and related facilities that use familiar systems and methods that present no unusual health or safety hazards.
- Accompanies inspectors of higher grades on regularly scheduled inspections of more complex mines or investigations of mine accidents participating in the work by performing assigned segments of the inspection or investigation.
- Promotes safety by giving instructions, demonstrations, safety talks, and lectures.
- Prepares written reports of inspections and investigations including notices of violations and orders of withdrawal.
- Testifies at judicial hearings regarding notices of violations and orders of withdrawal.

## 1. Knowledge Required by the Position - Level 1-6 - 950 points

Applies a sound practical knowledge of: (1) the processes, methods, and equipment commonly utilized in surface coal mining and in preparing coal for market and, (2) general occupational health and safety principles and practices to evaluate mining operations based

on a thorough inspection of mining systems and processes and to identify hazards to the safety and health of the workers.

## 2. Supervisory Controls - Level 2-3 - 275 points

Supervisor assigns periodic inspections of surface coal mines with which the inspector is familiar. Instructions are in terms of objectives and priorities. Follows established procedures and practices to plan and carry out assignments. If circumstances for which precedents and accepted practices are not applicable are encountered at the mine, contacts supervisor or a senior inspector for advice. Inspection reports, notices of violations, and orders of withdrawal are reviewed before or after the fact to determine that regulations and policies have been applied properly. Participation in inspections of mines that are new to the inspector or present special health or safety problems is more closely directed and observed by the supervisor or a lead inspector.

## 3. Guidelines - Level 3-2 - 125 points

Guidelines are the mine health and safety laws, regulations, agency policy memoranda, and the inspector's manual which includes procedures for conducting inspection. Assignments are screened before the inspector receives them to avoid issues for which guidelines and precedents are not applicable. Exercises judgment in the course of inspections to determine which regulations and procedures apply in specific situations, whether regulations have been violated, and the seriousness of the violation. Contacts supervisor or senior inspector for advice on situations where guidelines and precedents are unclear.

## 4. Complexity - Level 4-9 - 150 points

Primarily conducts onsite inspections to identify health and safety hazards and violations of rules and regulations in surface coal mines and preparation plants. Examines and evaluates equipment, work methods, and processes involved in every aspect of surface coal mining. For the most part, the methods and equipment utilized are common throughout the industry. Typically no major equipment or systems changes, accidents, or complaints have been reported since the previous inspection. However, the inspector must recognize deviations from earlier reports and common industry practices and make judgments about whether immediate action is called for. Participates in inspections and investigations of mines that present unusual or unyielding health or safety problems under the leadership of a higher level inspector.

## 5. Scope and Effect - Level 5-3 - 150 points

In addition to participating in inspections for training purposes conducts periodic inspections to determine health and safety conditions and problems in surface coal mines and preparation plant which present familiar problems with well-known solutions. Inspections result in identification of health and safety violations which the mine operator is obligated to correct within a reasonable period of time. If safety hazards pose an immediate danger, or if the

operator fails to correct conditions as requested, the mine or parts of it may be closed until they are corrected.

#### 6. Personal Contacts - Level 6-3 - 60 points

Personal contacts are typically with other inspectors and supervisors in the agency, State inspectors, mine operators and their representatives, union leaders, and workers at the mine.

#### 7. Purpose of Contacts - Level 7-2 - 50 points

The purpose of contacts is to plan and carry out inspections and to advise mine operators and workers on health and safety issues and problems. Operators and workers are generally cooperative and have an adequate health and safety program. Prior to and during the course of inspections, questions them about health and safety conditions at the mine. Holds conferences with representatives of the mine operator and workers after the inspection is completed to discuss violations and health and safety problems observed.

#### 8. Physical Demands - Level 8-3 - 50 points

Regularly conducts onsite inspections of surface coal mines. This work requires continuous and strenuous physical activity. Much of the time is spent walking, crouching, and standing. Carries for long periods of time heavy sampling and testing equipment. Often climbs tall ladders in restricted space to examine silos, or to gain access to and make a thorough examination of large surface equipment, e.g., overburden shovels.

#### 9. Work Environment - Level 9-3 - 50 points

When inspecting surface mines, the greatest risks are working at great heights along high walls and on large shovels, dump trucks, etc; exposure to severe outdoor weather conditions which, in the case of snow and ice, add an additional hazard to traveling along narrow roadways; and observation of the storage, handling, and use of explosives.

**TOTAL POINTS - 1860**

## **MINE SAFETY AND HEALTH INSPECTOR, GS-1822-11, BMK#1**

### Duties

Enforces the Federal laws and promotes safety and health among a variety of metal and nonmetal mines, mills, and quarries, including some that are known to have health and safety problems that can be corrected through adoption of known health and safety practices.

- Conducts periodic health and safety inspections of total mining and milling operations;
- Investigates accidents and complaints of health and safety violations received from unions or individual workers;
- Conducts safety meetings, competitions, programs, and health and safety training courses;
- Keeps track of health and safety issues and problems and operating plans for one or more mines and mills; advises on health and safety matters, interpretation of regulations and standards; refers the operator to appropriate agency officials who handle highly technical and professional engineering questions, if necessary;
- Prepares written reports of inspections and investigations including notices of violations and orders of withdrawal.

### 1. Knowledge Required by the Position - Level 1-7 - 1250 points

A thorough knowledge of: (1) the mining principles and techniques, and (2) the broad occupational health and safety principles and practices involved in the design, operation, and maintenance of a wide variety of diverse mining and milling systems and equipment. Ability to apply these knowledge to assess safety and health implications of unique combinations of technological, environmental, and geological conditions at both underground and surface mines.

### 2. Supervisory Controls - Level 2-4 - 450 points

Supervisor may assign continuing responsibility for enforcing and promoting health and safety among a particular group of mines, or may make specific assignments one at a time. The inspector independently plans, schedules, and carries out inspections, normally without instructions. The inspector issues notices and orders while at the mine site, which are submitted to supervisor after the fact, for concurrence. Unusual interpretations or potentially controversial findings are reviewed for impact on enforcement programs and policies.

### 3. Guidelines - Level 3-3 - 275 points

Guidelines are the mine health and safety laws, regulations, standards, agency policy memoranda, and the inspector's manual which includes procedures for conducting inspections. Uses judgment to interpret standards and regulations that are not clearly applicable and to determine appropriate procedures for handling situations not specifically addressed in the inspector's manual.

### 4. Complexity - Level 4-4 - 225 points

Enforces and promotes health and safety in a wide variety of metal and nonmetal mining operations, both underground and surface. The diversity of the operations increases the likelihood of encountering unique combinations of characteristics caused by the minerals themselves, the methods and equipment being used, the geology and climate, and the hazards inherent to particular types of mining and milling, which must be considered in making health and safety determinations. Assignments represent a broad spectrum of health and safety problems and issues which are well known in the mining industry and for which solutions and answers can be reached, but require consideration of a large number of factors and conditions which are continually changing from time to time and place to place. Examples of work include:

- Conducting complete health and safety inspections.
- Investigating accidents to determine whether Federal laws and regulations are being or have been violated.
- Advising mine operators on health and safety questions and problems.
- Assisting mine operators in planning changes in their operations.
- Suggesting methods for correcting violations.

Resolves most issues independently, with the exception of those technical problems requiring in-depth analysis by technical specialists or professional engineers, or unreconciled conflicts mine operators which escalate to a higher level of authority.

### 5. Scope and Effect - Level 5-3 - 150 points

The scope of the work includes enforcing and promoting health and safety among a variety of metal and nonmetal mines, mills, and quarries. This is accomplished by conducting periodic onsite inspections of health and safety conditions and problems, investigating complaints and accidents, and advising mine operators on health and safety issues. Inspections and investigations result in the identification of health and safety hazards which the operator is obligated to correct within a reasonable period of time. If safety hazards pose an immediate danger, the operation or parts of it are closed until they are corrected.

Advisory services and health and safety promotional activities often eliminate and control hazards and prevent unsafe conditions from occurring.

#### 6. Personal Contacts - Level 6-3 - 60 points

Personal contacts are typically with other inspectors and supervisors in the agency, State inspectors; and persons involved in the mining industry (e.g., mine operators and their representatives, union leaders, and workers in the mines).

#### 7. Purpose of Contacts - Level 7-3 - 120 points

The purpose of contacts is to obtain compliance with laws, standards, and regulations. The inspector may have a continuing relationship with a group of mine operators. Contacts involve a mixture of routine, noncontroversial health and safety issues, and issues where the operator and inspector are not necessarily in complete agreement. Disagreements usually relate to conflicts between production and safety considerations. The inspector uses tact and persuasion along with technical expertise and authority to avoid challenges to decisions and recommendations, to obtain quick and effective correction of immediate hazards, and to settle negotiations in the best interests of health and safety.

#### 8. Physical Demands - Level 8-3 - 50 points

Regularly conducts onsite inspections of underground and surface mines. This work requires continuous and strenuous physical activity. Whether the inspection is underground or on the surface, much of the time is spent walking, crouching, and standing. Carries for long periods of time heavy testing and sampling equipment. Climbs tall ladders from one level to another in underground mines to examine shafts, or to gain access to and make a thorough examination of large surface equipment, e.g., overburden shovels and milling machines.

#### 9. Work Environment - Level 9-3 - 50 points

Inspects a variety of underground and surface mines some of which are more hazardous than others. The greatest risks underground are roof falls, fires, explosions, and exposure to radiation, noxious gases, and fumes. On the surface, the greatest risks are working at great heights along high walls and on large shovels, dump trucks, etc., and exposure to severe weather conditions, which, in the case of snow and ice, add an additional hazard to traveling along narrow roadways. Observes the storage, handling, and use of explosives, both underground and on the surface.

**TOTAL POINTS--2630**

## **COAL MINE SAFETY AND HEALTH INSPECTOR, GS-1822-11, BMK#2**

### **Duties**

Responsible for enforcing and promoting safety and health in underground coal mines, preparation plants, and related facilities. These operations use a variety of methods and systems, have ongoing health and safety programs, and have health and safety problems that can be resolved through application of good health and safety practices. To carry out these responsibilities:

- Independently conducts periodic onsite health and safety inspections of the mines.
- Investigates accidents and complaints of health and safety problems received from unions or individual workers.
- Promotes health and safety at the mines by directing and participating in safety meetings, first aid and mine rescue competitions, programs, and training courses.
- Serves as the agency spokesperson and as an authority on mine health and safety to one or more underground coal mines.
- Prepares written reports of inspections and investigations including notices of violations and orders of withdrawal.
- Testifies at judicial hearings regarding notices of violations and orders of withdrawal.

### **1. Knowledge Required by the Position - Level 1-7 - 1250 points**

A thorough knowledge of, (1) the mining principles and techniques, and (2) the broad occupational health and safety principles and practices involved in the design, operation, and maintenance of underground coal mining systems and equipment. Ability to apply these knowledges to assess safety and health implications of unique combinations of technological, environmental, and geological conditions at underground coal mines throughout the district.

### **2. Supervisory Controls - Level 2-4 - 450 points**

Supervisor may assign continuing responsibility for enforcing and promoting health and safety among a group of mines, or make assignments, usually without specific instructions. Inspector independently-plans, schedules, and carries out inspections. Inspector issues notices and orders while at the mine site, and submits them after the fact for concurrence. Unusual interpretations or potentially controversial findings are reviewed for impact on enforcement programs and policies.



### 3. Guidelines - Level 3-2 - 125 points

Guidelines are the mine health and safety laws, standards, regulations, agency policy memoranda, and the inspector's manual which includes procedures for conducting inspections. Inspector uses judgment during the course of inspections to determine which regulations apply in specific situations, whether regulations have been violated, and the seriousness of the violations. Contacts supervisor or senior inspectors for advice about unusual situations where guidelines and precedents cannot be applied.

### 4. Complexity - Level 4-4 - 225 points

Enforces and promotes health and safety in a variety of underground coal mines or a very large underground coal mine. Primarily conducts periodic onsite health and safety inspections of these mines and associated preparation plants. This includes examining and evaluating equipment, work methods, and processes involved in every aspect of the operations. The inspector adapts an approach to each inspection to fit the particular characteristics of the operation; and interprets a variety of facts and data to arrive at conclusions about health and safety issues and problems, e.g., gas, dust, and electrical hazards, which are inherent to underground coal mining and can normally be dealt with through application of known health and safety practices. Advises the mine operator on health and safety questions and problems and suggests methods of correcting or avoiding hazards. Assists the operator in planning modifications to the mining operation such as selecting and installing new equipment, changing materials or methods. Investigates complaints of health and safety problems and accidents to determine whether Federal laws and regulations have been or are being violated. Resolves nearly all problems independently, with the exception of those requiring in-depth technical analysis by specialists or professional engineers, or conflicts with mine operators which escalate to a higher level of authority.

### 5. Scope and Effect - Level 5-3 - 150 points

The scope of the work includes enforcing and promoting health and safety in coal mines by conducting periodic inspections of the mines, investigating complaints and accidents, and advising mine operators and workers on health and safety issues and practices. Inspections and investigations result in the identification of health and safety hazards which the operator is obligated to correct within a reasonable period of time. If safety hazards pose an immediate danger, the mine or parts of it are closed until the hazards are corrected. Advisory and promotional activities often eliminate and control hazards and prevent unsafe conditions from occurring.

### 6. Personal Contacts - Level 6-3 - 60 points

Personal contacts are typically with other inspectors and supervisors in the agency, State inspectors, and persons involved in the coal mining industry (e.g., mine operators and their representatives, union leaders, and workers in the mines).

## 7. Purpose of Contacts - Level 7-3 - 120 points

The purpose of the inspector's contacts is to obtain compliance with the laws, standards, and regulations and to promote health and safety in coal mining. The inspector may have a continuing relationship with a group of mine operators. Contacts involve a mixture of routine, noncontroversial health and safety issues, and issues where the operator and inspector are not necessarily in complete agreement. Disagreements usually relate to conflicts between production and safety considerations. The inspector uses tact and persuasion, along with technical expertise and authority to avoid challenges to decisions and recommendations, to obtain quick and effective correction of immediate hazards, and to settle negotiable issues in the best interest of health and safety.

## 8. Physical Demands - Level 8-3 - 50 points

Regularly conducts onsite inspections of underground coal mines. This work requires continuous and strenuous physical activity. Much of the time is spent walking, crouching, and standing. Carries for long periods of time heavy sampling and testing equipment. Often climbs high ladders to examine shafts. In parts of the country where the coal seams are narrow, may stoop all day in mines one meter (three or four feet) high.

## 9. Work Environment - Level 9-3 - 50 points

Inspects underground coal mining which by its very nature is a hazardous and stressful operation. In addition to the characteristically dark, wet, and cramped environment, underground coal mines contain noxious gases and fumes, and the danger of explosions due to build-ups of coal dust and explosive gases, electrical fires, and roof falls.

**TOTAL POINTS-2480**

# **COAL MINE SAFETY AND HEALTH INSPECTOR, GS-1822-11, BMK#3**

## Duties

Enforces and promotes safety and health in a variety of surface coal mines, preparation plants, and related facilities. The mines use a variety of strip mining methods and equipment and have some health and safety problems that can be resolved through application of good health and safety practices. To carry out these responsibilities:

- Independently conducts health and safety inspections of the entire range of typical surface coal mines and mills within the geographic area.
- Conducts investigations of accidents and complaints of health and safety violations received from unions or individual workers.

- Promotes safety by directing and participating in safety meetings, competitions, programs, and health and safety training courses.
- Prepares written reports of inspections and investigations including notices of violations and orders of withdrawal.
- Testifies at judicial hearings regarding notices of violations and orders of withdrawal.

## 1. Knowledge Required by the Position - Level 1-7 - 1250 points

A thorough knowledge of: (1) the mining principles and techniques and, (2) the broad occupational health and safety principles and practices involved in the design, operation, and maintenance of surface coal mining systems and equipment. Ability to apply these knowledges to assess safety and health implications of unusual combinations of technological, environmental, and geological conditions at surface coal mines.

## 2. Supervisory Controls - Level 2-4 - 450 points

Supervisor may assign continuing responsibility for enforcing and promoting health and safety among a particular group of mines, or may make specific assignments one at a time. The inspector independently plans, schedules, and carries out inspections, normally without instructions. The inspector issues notices and orders while at the mine site, which are submitted to supervisor after the fact, for concurrence. Unusual interpretations or potentially controversial findings are reviewed for impact on enforcement programs and policies.

## 3. Guidelines - Level 3-3 - 275 points

Guidelines are the mine health and safety laws, regulations, standards, agency policy memoranda, and the inspector's manual which includes procedures for conducting inspections. Inspectors must use judgment to interpret standards and regulations that are not clearly applicable and to determine appropriate procedures for handling situation not addressed in the inspector's manual.

## 4. Complexity - Level 4-4 - 225 points

Inspects a variety of surface coal mines that have complicating characteristics such as:

- equipment, facilities, and processes which have never been inspected under operating conditions.
- hazardous conditions such as steep or unstable high walls, use of explosives or large vehicles.

- recent violations, accidents, or complaints which indicate some possible deficiencies or problems in the mine's safety program.

Varies inspection procedures for each assignment according to the needs of the particular mine. Determines the need for, collects, and evaluates a variety of information and data to arrive at conclusions about and recommend solutions for health and safety problems that are not clear cut. Also investigates complaints of health and safety problems and accidents in mines to determine whether Federal laws and regulations have been or are being violated. Problems and issues are generally known to the mining industry and can usually be resolved by application of generally known and accepted health and safety practices.

Advises the mine operators on health and safety questions and problems and suggests methods of correcting violations. Resolves nearly all problems occurring in the mines independently, with the exception of those requiring in-depth technical analysis by specialists or professional engineers, or conflicts with mine operators which escalate to a higher level of authority.

#### 5. Scope and Effect - Level 5-3 - 150 points

The scope of the work includes enforcing and promoting health and safety among surface coal mines and mills. This is accomplished by conducting periodic onsite inspections of health and safety conditions, by investigating complaints and accidents, and by advising mine operators on health and safety issues and practices.

Inspections and investigations result in the identification of health and safety hazards which the mine operator is obligated to correct within a reasonable period of time. If safety hazards pose an immediate danger, the mine or parts of it are closed until they are corrected. Advisory services and promotional activities often eliminate and control hazards and prevent unsafe conditions from occurring.

#### 6. Personal Contacts - Level 6-3 - 60 points

Personal contacts are typically with other inspectors and supervisors in the agency, State inspectors, mine operators and their representatives, union leaders, and workers in the mines.

#### 7. Purpose of Contacts - Level 7-3 - 120 points

The purpose of the inspector's contacts is to obtain compliance with the Federal laws, standards, and regulations. The inspector may have a continuing relationship with a group of mine operators or a single operator over a period of time. Contacts involve a mixture of routine, noncontroversial health and safety issues, and issues where the operator and inspector are not necessarily in complete agreement. Disagreements usually relate to conflicts between production and safety considerations. The inspector uses tact and persuasion along with technical expertise and authority to avoid challenges to decisions and

recommendations, to obtain quick and effective correction of immediate hazards, and to settle negotiable issues in the best interests of health and safety.

#### 8. Physical Demands - Level 8-3- 50 points

Regularly conducts onsite inspections of surface coal mines. This work requires continuous and strenuous physical activity. Much the time is spent walking, crouching, and standing. Inspectors carry for long periods of time heavy sampling and testing equipment. They often climb high ladders to examine silos or to gain access to and make a thorough examination of large surface equipment, e.g., overburden shovels.

#### 9. Work Environment - Level 9-3 - 50 points

When inspecting surface coal mines, the greatest risks are working at great heights along high walls and on large shovels, dump trucks, etc; exposure to severe outdoor weather conditions, which, in the case of snow and ice, add an additional hazard to traveling along narrow roadways; and observation of the storage, transportation, and use of explosives.

**TOTAL POINTS- 2630**

### **MINE SAFETY AND HEALTH SPECIALIST, GS-1822-11, BMK#4**

#### Duties

Serves as a roof control specialist. In this capacity:

- Reviews and recommends approval or disapproval of updated roof control plans submitted by coal mine operators every six months. Evaluates changes from previously approved plans to determine whether the roof support which the operator proposes will provide adequate protection from roof falls as mining progresses.
- Personally conducts on site inspection of coal mines to determine whether conditions at the mine are actually the same as those portrayed in the plan, to obtain information that may not be clear from the plan, and to discuss technical problems causing the plan to be unacceptable.
- Advises mine operators and other inspectors on problems and issues relating to roof control systems and methods.
- Evaluates and recommends approval or disapproval of requests for variance from roof control standards.
- Prepares drawings of roofbolting, timbering, and pillar removal sequence plans.

- Testifies at judicial hearings regarding notices of violations and orders of withdrawal.
- Prepares written reports.
- Promotes and participates in conducting mine rescue and first aid competitions.

### 1. Knowledge Required by the Position - Level 1-7 - 1250 points

- A broad knowledge of the processes, methods, and equipment utilized to mine coal.
- A knowledge of generally accepted roof control systems, methods, and equipment.
- Knowledge of the impact of the various processes, methods, and equipment, and environmental, geological, and production factors involved in mining on roof control needs.

### 2. Supervisory Controls - Level 2-4 - 450 points

Supervisor assigns work, e.g., updated roof control plans, requests for variance, without instructions. Inspector plans and carries out the work independently. Coordinates work with other staff members such as onsite inspectors and professional engineers, as necessary. Provides technical advice directly to mine operators, manufacturers, and inspectors without supervisory review. Typically, reports and recommendations are accepted as technically sound. Precedent setting or controversial findings and decisions are discussed in progress and reviewed for impact on the industry and agency regulations and policies pertaining to roof control.

### 3. Guidelines Level 3-2 - 125 points

Guidelines are the mine safety and health laws, related standards and regulations promulgated by the agency, agency policy memoranda, and manuals, especially those portions dealing with roof control. Follows the established procedures of the office for reviewing roof control plans. Previous decisions, although based on conditions that are never completely analogous, usually serve as effective precedents. The specialist uses judgment to adapt these precedents in making decisions about a variety of roof control problems and issues. Assignments have usually been screened to avoid roof control issues and problems for which guidelines and precedents are not applicable and the supervisor or a higher level specialist is available for advice on handling unusual roof control problems.

### 4. Complexity - Level 4-4 - 225 points

Analyzes roof control systems, methods, and equipment to determine whether they provide adequate safety under particular conditions. Each mine presents a unique combination of technological, production, geological, and environmental factors which must be assessed carefully for their impact on roof control needs. Although the specialist uses actual data

collected during onsite visits to the mine from previous inspection reports, roof control plans, accident records, etc., in most cases the work also involves projecting the likelihood of safety problems based on verbal and graphic descriptions of systems, equipment, and methods.

#### 5. Scope and Effect - Level 5-3 - 150 points

The purpose of the work is to evaluate the safety of proposed roof control plans, systems, methods, and equipment before they are in use; to advise operators on how to develop and maintain a roof control system that is safe for their operations; to identify and resolve complex roof control problems at individual mines that the general inspector is not able to handle. The work has considerable effect on what kind of roof control system an operator must have before starting or continuing to operate a mine. Recommendations and advice of this specialist affect the safety of roof control systems in a wide variety of coal mines.

#### 6. Personal Contacts - Level 6-3 - 60 points

Personal contacts are typically with inspectors, engineers, and other specialists within the agency, and with coal mine operators and their representatives, and manufacturers of mining equipment.

#### 7. Purpose of Contacts - Level 7-3 - 120 points

Contacts with the mine operators are usually to discuss proposed roof control plans, to explain any unacceptable features of the plans, and to arrive at an overall plan that will meet Federal safety standards. Operators are usually trying to minimize the costs. The specialist uses persuasion and technical expertise to resolve disagreements over roof control methods and materials that minimize the chance of roof falls, even though they involve additional cost.

#### 8. Physical Demands - Level 8-3 - 50 points

Regularly conducts onsite investigations and inspections in underground coal mines. Onsite investigations require considerable and strenuous physical exercise. Most of the time is spent walking, crouching, and standing. Carries heavy testing equipment and instruments. In parts of the country where coal beds are narrow, may have to stoop all day in mines one meter (three or four feet) high, or crawl through lower areas.

## 9. Work Environment - Level 9-3 - 50 points

Inspects underground coal mining which by its very nature is a hazardous and stressful operation. In addition to the characteristically dark, wet, and cramped environment, underground coal mines contain noxious gases and fumes and the dangers of potentially explosive coal dust, electrical fires, and roof falls.

**TOTAL POINTS - 2480**

### **MINE SAFETY AND HEALTH INSPECTOR, GS-1822-12, BMK#1**

#### Duties

Enforces the mine safety and health laws and promotes safety and health among all types of metal and nonmetal mines and mills, including those known to have serious or persistent safety and health problems. Gives advice and assistance relating to those mines, systems, and processes for which health and safety issues and solutions are undefined:

- Conducts periodic safety and health inspection of total mining and milling operations, including those with complex systems and processes, high incidence of serious accidents, or a record of persistent health and safety violations.
- Conducts inspections of a more in-depth technical nature in addition to the usual periodic inspections, e.g., shaft sinking operations, mine development projects, mines with major systems changes, mines with records indicating inadequacies in overall systems, or mines requesting significant variance from established standards.
- Investigates or leads teams to investigate major accidents, fatalities, and disasters to determine the cause, how they might be prevented, and whether Federal laws or regulations were violated.
- Investigates a variety of complaints regarding health and safety received from unions and individuals and applies knowledge and experience to effect a solution.
- Conducts special investigations into health and safety problems identified by companies, unions, or lower grade inspectors, including those for which traditional procedures and commonly accepted solutions have not been effective.
- Keeps up-to-date on health and safety issues, Federal laws and regulations, new equipment, and unusual health and safety problems. Advises mine operators, unions, and other inspectors regarding the applicability of this information along with usefulness of incorporating it into particular inspection procedures.
- Prepares written reports of inspections and investigations, including detailed reports with diagrams, statistics, and narratives of special or technical investigations.



## 1. Knowledge Required by the Position - Level 1-17 - 1250 points

Applies: (1) a thorough knowledge of the design, operations, and maintenance of overall mining and milling systems including unusual methods, equipment, and environmental and geological conditions, (2) knowledge of broad occupational health and safety principles and practices, and (3) knowledge of the policies, programs, and practices of the agency, to determine the causes of hazards, accidents, and safety and health problems of the most complex and obscure nature and to find appropriate solutions for serious safety and health problems.

## 2. Supervisory Controls - Level 2-4 - 450 points

Supervisor assigns inspections and special investigations of mines and mills. Some assignments are continuing, allowing the inspector to plan day-to-day work and set priorities; others are made in response to special problems. Since special assignments typically require immediate attention, supervisors may indicate that such assignments must be given top priority. The inspector plans and carries out work independently interpreting regulations and adapting precedents when necessary. Notices and orders which are issued before leaving the mine are reviewed after the fact. Technical reports are submitted for signature of higher level authority. Inspector's judgment is accepted as technically sound. Unusual interpretations or potentially controversial findings are reviewed for impact on enforcement programs and policies.

## 3. Guidelines - Level 3-3 - 275 points

Guidelines are the mine health and safety laws, standards, regulations, agency policy memoranda, and the inspector's manual which includes procedures for conducting-inspections. The inspector uses judgment to interpret standards and regulations that are not clearly applicable to determine appropriate procedures for handling situations not addressed in the inspector's manual. Especially when investigating unusual technical problems, health and safety hazards, and mine disasters, published guidelines may have little applicability. On such assignments, decisions are based largely on experienced judgment.

## 4. Complexity - Level 4-5 - 325 points

Enforces and promotes health and safety in a wide variety of underground and surface metal and nonmetal mines and mills. The diversity of both the mines and mills increase the likelihood of encountering unique safety issues and health problems requiring new, modified, or innovative inspection procedures and problem resolutions.

Examples of characteristics and changing conditions which typically complicate assignments include:

- health hazards generated in both mines and mills by changing characteristics of the ore or mineral being processed.

- new and unique safety hazards encountered in both underground and surface mines due to the wide variety of mine and the unpredictable geologic and climatic conditions.
- constant change in mining methods due to introduction of new equipment and procedures. This usually produces unique health and safety implications or lack of appropriate inspection procedures for the new or unusual mining systems, procedures, structures, and facilities.
- modern technology continually introduces new methods and procedures for processing the mined material. This increases the complexity of mill operations along with the introduction of unique hazards, particularly those associated with health.
- persistent hazards for which traditional solutions have been ineffective.
- complete change of physical conditions and lack of adequate data following various disaster-type occurrences.
- changing techniques in industrial hygiene sampling methods and procedures.
- constant changes and improvements in methods of eliminating or reducing health hazards. Makes periodic inspections in all types of mines and mills. However, problem mines and mills, exceptionally hazardous mines, and special investigations of issues which need special attention have priority. Sometimes a mine or mill may be the only one of its kind in the country in that it has some unique combination of physical and environmental characteristics, systems, and processes for which there are no handy or routine solutions to either the health or the safety problems encountered.

## 5. Scope and Effect - Level 5-4 - 225 points

The scope of the work includes conducting inspections and investigations that are known to involve new or unusual health and safety issues or problems. The inspector's findings and decisions impact on the acceptability of major mining systems and processes which are a critical feature of the total mining operation. Reports of such findings and decisions are sometimes distributed nationwide for use as references or precedents by other inspectors. They may also be used by headquarters specialists as the basis for developing or revising regulations, standards, and enforcement procedures for the entire agency.

## 6. Personal Contacts - Level 6-3 - 60 points

Personal contacts are typically with other inspectors and supervisors in the agency, State inspectors, and persons involved in the mining industry (e.g., mine operators and their representatives, union leaders, and workers in the mines).

## 7. Purpose of Contacts - Level 7-3 - 120 points

The purpose of contacts is to obtain compliance with the Federal laws, standards, and regulations. Although some contacts are fairly routine, the inspector is often called upon to resolve the most controversial problems involving individual mine operators. Problems involve disagreements over such matters as interpretation of the regulations, the need for particular safety measures, and conflicting information. In some cases, the mine operators are known to be uncooperative and may withhold or give misleading information. They may even go so far as to refuse the inspector access to facilities and information. The inspector uses tact and persuasion along with technical expertise and authority to determine the facts of the case, to avoid challenges to decisions and authority, to obtain quick and effective correction of serious hazards, and to settle negotiable issues in the best interests of health and safety.

## 8. Physical Demands - Level 8-3 - 50 points

Regularly conducts onsite inspections and investigations. This work requires continuous and strenuous physical activity. Whether the inspection is underground or on the surface, much of the time is spent walking, crouching, and standing. Carries for long periods of time heavy sampling and testing equipment. Often climbs high ladders from one level to another in underground mines, to examine shafts, or to gain access to and make a thorough examination of large surface equipment, e.g., overburden shovels and milling machines.

## 9. Work Environment - Level 9-3 - 50 points

Conducts inspections and investigations in a variety of underground and surface mines, some of which are more hazardous than others. The greatest risks underground are roof falls, fires, explosions, and exposure to radiation, noxious gases, and fumes. On the surface, the greatest risks are working at great heights along high walls and on large shovels, dump trucks, etc., and exposure to severe weather conditions which, in the case of snow and ice, add an additional hazard to traveling along narrow roadways. Observes the storage, transportation, and use of explosives both underground and on the surface.

**TOTAL POINTS - 2805**

## **COAL MINE SAFETY AND HEALTH INSPECTOR, GS-1822-12, BMK#2**

### Duties

Enforces and promotes safety and health in underground coal mines by performing a variety of safety and health inspections and accident investigations, and providing advisory services. In addition to conducting the usual variety of comprehensive inspections, special investigations and advisory services, regularly receives assignments to resolve some of the most serious, unusual, and hard-to-define problems that occur with individual mine operators. Some inspectors may specialize in one particular type of health or safety issue or problem to the exclusion of the others. However, he or she performs one or more of such types of assignments on a regular basis, i.e., many times over the course of a year:

- Leads teams of inspectors and specialists, investigating accidents to determine the cause, how they might be prevented, and whether or not Federal laws or regulations were violated. Participates on teams led by nationwide experts to investigate major disasters.
- Conducts special investigations of health and safety problems for which established inspection procedures and common health practices have not been effective at pinpointing and resolving problems.
- Conducts special inspections and continuous monitoring of mines with high accident rates that need special attention.

The following are routine duties that may be found at any independent working level:

- Testifies at judicial hearings regarding notices of violations and orders of withdrawal.
- Prepares written reports.
- Promotes and participate in conducting mine rescue and first aid competitions.

### 1. Knowledge Required by the Position - Level 1-7 - 1250 points

Applies (1) a thorough knowledge of the design, operation, and maintenance of underground mining systems including unique and complex methods, equipment, and environmental and geological conditions, (2) knowledge of broad occupational health and safety principles and practices, and (3) knowledge of the policies, programs, and practices of the agency to determine the causes of hazards, accidents, and safety and health problems of the most complex and obscure nature and to find appropriate solutions for serious safety and health problems.

## 2. Supervisory Controls - Level 2-4 - 450 points

Supervisor assigns periodic inspections or special investigations of mines and related preparation plants. For continuing assignments the inspector plans day-to-day work schedule and sets priorities. If special assignments require immediate action, supervisor indicates priority of such work and inspector adjusts schedule accordingly. The inspector plans and carries out work independently interpreting regulations and adapting precedents when necessary. Submits reports, notices of violations and orders of withdrawal, after the fact, for signature of higher level authority the inspector's judgment is accepted as technically sound. Unusual interpretations or potentially controversial findings are reviewed for impact on enforcement program and policies.

## 3. Guidelines - Level 3-3 - 275 points

Guidelines are the Federal mine health and safety laws, and regulations, agency policy memoranda, and the inspector's manual which includes procedures for conducting inspections. The inspector uses judgment to interpret standards and regulations that are not clearly applicable and to determine appropriate procedures for handling situations not addressed in the inspector's manual. Especially when investigating unusual technical problems, health and safety hazards, and mine accidents, published guidelines may have little applicability. On such assignments, decisions are based largely on experienced judgment.

## 4. Complexity - Level 4-5 - 325 points

Included in the wide variety of assignments performed at this level are assignments that present some of the more serious and complex health and safety problems found at individual coal mines. These assignments are characterized by special health and safety or inspections problems requiring unique solutions. Although the mining systems and methods themselves may not present special problems, problems may stem from inadequacies in motivation or technical competence of the mine operator and staff. The mine operator may rely heavily on the inspector for advice in the planning and carrying out the operation when the operator's staff is not adequate. Over the course of a year, the inspector would on many occasions perform one or more of the following types of assignments:

- Makes periodic complete inspections of mines that are known to -have persistent health and safety problems for which new and innovative solutions are needed.
- Makes complete onsite inspections of mines with special characteristics such as new or unusual systems and methods or outdated equipment which presents special reliability and maintenance problems. In either case, established inspection procedures are not fully applicable, and health and safety implications are uncertain.
- Makes special investigations of mines with unusual health and safety problems identified by other inspectors or received as complaints from workers.

- Leads teams of specialists investigating serious accidents to determine the cause and appropriate corrective measures. Often evidence has been destroyed in the accident and facts have gotten confused. Considerable probing is necessary to obtain information about the accident. Sometimes decisions must be made by piecing together scanty or incomplete data.

## 5. Scope and Effect - Level 5-4 - 225 points

The scope of the work includes both inspections and investigations of mines that are known to involve unusual or controversial health and safety issues. Decisions and findings have impact on the acceptability of major systems, methods, and processes used by individual mines and, in many cases, whether the mine may continue to operate. New or unusual findings and decisions may be used as precedents by other inspectors.

## 6. Personal Contacts - Level 6-3 - 60 points

Personal contacts are typically with other inspectors and supervisors in the agency, State inspectors, and persons involved in the coal mining industry (e.g., mine operators and their representatives, union leaders, and workers in the mines).

## 7. Purpose of Contacts - Level 7-3 - 120 points

The purpose of contacts is to obtain compliance with the mine health and safety laws and regulations. Although some contacts are fairly routine, the inspector is often called upon to resolve controversial problems they involve disagreements over such matters as interpretation of the regulations, the need for particular safety measures, and conflicting information. In some cases, the mine operators are known to be uncooperative and may withhold or give misleading information. They may even go so far as to refuse the inspector access to facilities and information. The inspector uses tact and persuasion along with technical expertise and authority to determine the facts of the case, to avoid challenges to decisions and authority, to obtain quick and effective correction of serious hazards, and settle negotiable issues in the best interest of health and safety.

## 8. Physical Demands - Level 8-3 -50 points

Regularly conducts onsite inspections and investigations of coal mines. The work requires continuous and strenuous physical activity. Much of the time is spent walking, crouching, and standing. Carries heavy sampling and testing equipment for long periods of time. Often climbs high ladders to examine shafts and other high facilities. In parts of the country where coal seams are narrow, may stoop all day in mines one meter (three or four feet) high and crawl through extremely low areas.

## 9. Work Environment - Level 9-3 - 50 points

Inspects underground coal mining which by its very nature is a hazardous and stressful operation. In addition to the characteristically dark, wet, and cramped environment, underground coal mines contain noxious gases and fumes and the dangers of potentially explosive coal dust or gases, electrical fires, and roof falls.

The inspector also inspects mines that are suspected of having inadequate safety programs or unusually stubborn safety problems or where there has recently been a serious accident or disaster. This increases the risk to health and safety.

**TOTAL POINTS - 2805**

## **COAL MINE SAFETY AND HEALTH INSPECTOR, GS-1822-12, BMK#3**

### Duties

Enforces and promotes safety and health in surface coal mines by performing a variety of safety and health inspections and accident investigations, and providing advisory services. In addition to conducting the usual variety of comprehensive inspections, special investigations, and advisory services, regularly receives assignments to resolve some of the most serious, unusual and hard-to-define problems that occur, in dealing with individual mines. Some inspectors may specialize in one particular health or safety issue or problem to the exclusion of others. However, he or she performs one or more of such types of assignments on a regular basis, i.e., many times over the course of a year:

- Conducts periodic onsite inspections and investigations of surface coal mines and preparation plants, where equipment and processes are unique, where there have been persistent health and safety problems (e.g., vehicle accidents, unstable high walls, explosive misfires), and where the systems involved are extremely complex due to the size of the mine, the volume of production, number of employees, etc.
- Leads teams of specialists investigating accidents to determine the cause, how they might be prevented, and whether or not Federal laws or regulations were violated.
- Conducts in-depth technical investigations of health and safety problems referred by inspectors of lower grade.
- Conducts special inspections of mines with high accident rates that need special attention.

The following are routine duties that may be found at any independent working level:

- Testifies at judicial hearings regarding notices of violations and orders of withdrawal.
- Prepares written reports.
- Promotes and participates in conducting mine rescue and first aid competitions.

### 1. Knowledge Required by the Position - Level 1-7 - 1250 points

Applies: (1) a thorough knowledge of the design, operation, and maintenance of surface mining systems including unique and complex methods equipment, and environmental and geological conditions, (2) knowledge of broad occupational health and safety practices and principles, and (3) knowledge of the policies, programs, and practices of the agency to determine the causes of hazards, accident, and safety and health problems of the most serious and obscure nature and to find appropriate solutions for serious safety and health problems.

### 2. Supervisory Controls - Level 2-4 - 450 points

Supervisor assigns periodic inspections and special investigations of surface mines and preparation plants. For continuing assignments, inspector plans day-to-day work schedule and set priorities. The supervisor may indicate priority for special investigations. Inspector adjusts schedule accordingly. Submits reports, notices of violation, and orders of withdrawal after the fact for signature of higher level authority. Inspector's judgment is accepted as technically sound. Unusual interpretation and potentially controversial findings are reviewed for impact on enforcement programs and policies.

### 3. Guidelines - Level 3-3 - 275 points

Guidelines are the coal mine health and safety laws and regulations, agency policy memoranda, and the inspector's manual which includes procedures for conducting inspections. Uses judgment to interpret regulations that are not clearly applicable and to determine appropriate procedures for handling situations not addressed in the inspector's manual. Especially when investigating unusual technical problems, health and safety hazards, and mine accidents, published guidelines may have little applicability. On such assignments, decisions are based largely on experienced judgment.

### 4. Complexity - Level 4-5 - 325 points

Included in the wide variety of comprehensive inspections, special investigations, and advisory services performed at this level are assignments that present some of the most serious and complex health and safety problems found at individual coal mines, i.e., those involving unusual or new conditions, methods, and equipment, or persistent hazards for which new and innovative approaches are needed. As the lead inspector, advises other inspectors on how effectively evaluate new or unusual health and safety problems; interprets new or controversial regulations for mine operators, manufacturers, or other inspectors; and



investigates fatal and serious nonfatal accidents to determine the cause. Often evidence has been destroyed in the accident and facts have become confused. Considerable probing is necessary to obtain information about the accident. Sometimes conclusions must be drawn from scanty or incomplete data.

#### 5. Scope and Effect - Level 5-4 - 225 points

The scope of the work includes both inspections and investigations of surface mines that are known to involve unusual or controversial health and safety issues. Decisions and findings have impact on the acceptability of major systems, methods, and processes used by individual mines and, in many cases, whether or not the mine may continue in operation. New or unusual findings and decisions may be used as precedents by other inspectors.

#### 6. Personal Contacts - Level 6-3 - 60 points

Personal contacts are typically with other inspectors and supervisors in the agency, State inspectors, and persons involved in the coal mining industry (e.g., mine operators and their representatives, union leaders, and mine workers).

#### 7. Purpose of Contacts - Level 7-3 - 120 points

The purpose of contacts is to get mine operators and workers to comply with the Federal laws and regulations. Although some contacts are fairly routine, the inspector is usually called upon to resolve controversial problems involving disagreements over such matters as interpretation of the regulation. In some cases, the mine operators are known to be uncooperative and may withhold or give misleading information. They may even go so far as to refuse the inspector access to facilities and information. The inspector uses tact and persuasion along with technical expertise and authority to determine the facts of the case, to avoid challenges to decisions and authority, to obtain quick and effective correction of serious hazards, and to settle negotiable issues in the best interest of health and safety.

#### 8. Physical Demands - Level 8-3 - 50 points

Regularly conducts onsite inspections and investigations of surface coal mines. This work requires continuous and strenuous physical activity. Much of the time is spent walking, crouching, and standing. Surfaces are frequently uneven, have steep slopes, or are unstable: Carries for long periods of time heavy testing and sampling equipment. Climbs high ladders to examine silos and to gain access to and make a thorough examination of large surface equipment.

#### 9. Work Environment-Level 9-3-50 points

When inspecting surface coal mines, the greatest risks to personal safetyware working at great heights along high walls and on large shovels, dump trucks, etc.; exposure to severe

outdoor weather conditions which, in the case of snow and ice, add an additional hazard to vehicles traveling along narrow unpaved roadways; and observation of storage, transportation, and use of explosives.

**TOTAL POINTS - 2805**

## **MINE SAFETY AND HEALTH SPECIALIST, GS-1822-12, BMK#4**

### Duties

Serves as an expert on roof control. In this capacity:

- Reviews and recommends approval or disapproval of roof control plans periodically submitted by coal mine operators. Evaluates the plans to determine whether the roof support system which the operator proposes will provide adequate protection from roof falls as mining progresses.
- After receiving plans, may personally conduct onsite investigations of the mine to determine whether conditions at the mine are actually the same as portrayed in the plan, acquire information that may not be clear from the plan, or to discuss technical problems causing the plan not to be acceptable.
- Participates as roof control expert on teams investigating roof fall accidents.
- Advises operators and inspectors about new or unusual roof control systems and methods of major safety problems relating to roof control.
- Evaluates and recommends approval or disapproval of requests for variance from roof control standards.
- Evaluates and discusses the acceptability of new roof control methods and equipment with manufacturers and mine operators.
- Testifies at judicial hearings regarding notices of violations and orders of withdrawal.
- Prepares written reports.
- Prepares drawing of roof bolting timbering, and pillar removal sequence plans.

1. Knowledge Required by the Position - Level 1-7 - 1250 points

- A broad knowledge of the processes, methods, and equipment utilized to mine coal.
- An in-depth and up-to-date knowledge of roof control systems, methods and equipment including the latest and most unusual methods and equipment.
- Knowledge of the impact of the various processes, methods, and equipment, and environmental, geological, and production factors involved in mining on roof control needs.

2. Supervisory Controls - Level 2-4 - 450 points

Has continuing responsibility for providing technical advisory service and expertise in the area of roof control. Receives assignments in the form of roof control plans and requests for technical advice and assistance usually directly from mine operators, manufacturers, and other inspectors without instructions from supervisor except indication of priority for some special assignments. The specialist plans and carries out assignments independently and coordinates work with other staff members, such as onsite inspectors and professional engineers, as necessary. Much of the work involves providing technical advisory service directly to mine operators, manufacturers, and inspectors, which does not lend itself to supervisory review. Technical reports of onsite investigations are reviewed for impact on health and safety policies and programs. Recommendations for approval or disapproval of roof control plans are nearly always accepted by the supervisor. Decisions that deviate from established policies and precedents are usually discussed with the supervisor and receive approval before they are communicated outside the office.

3. Guidelines - Level 3-3 - 275 points

Guidelines are the coal mine health and safety laws, regulations promulgated by the agency, agency policy memoranda, and manuals, especially those portions dealing with roof control. Uses judgment and understanding of the objectives of broad health and safety laws and policies to adapt regulations that are not fully applicable and to determine procedures for handling situations not addressed in the manual. Advises other specialists and inspectors about roof control problems for which there are no clear precedents and procedures. Develops new or modified roof control regulations, standards, and inspection procedures.

4. Complexity - Level 4-5 - 325 points

Analyzes and resolves the most complex and critical roof control problems occurring at individual coal mines. The work typically involves such assignments as:

- Devising new procedures to collect and evaluate data regarding new roof control methods and equipment.

- Resolving critical roof control problems that pose serious hazards and for which traditional solutions have not been effective.
- Evaluating equipment and methods proposed or in use for the first time under particular conditions.
- Participating on teams investigating accidents where there has been extensive destruction of evidence.
- Instructing inspectors and other specialists on new technological developments in the area of roof control, their safety implications, and their effect on inspection procedures.

5. Scope and Effect - Level 5-4 - 225 points

The purpose of the work is to evaluate the safety of proposed roof control plans, systems, and equipment before they are in use; to advise operators on how to develop and maintain a roof control system that is safe for their operation; to identify and resolve complex roof control problems that the general inspector is not able to handle; to advise inspectors on new technological developments in roof control and their impact on inspection procedures, Federal regulations, and safety in general.

Recommendations, advice, and decisions of this specialist have direct bearing on the application of roof control safety regulations by inspectors and specialists and whether or not mine operators may continue production. In some cases, reports and decisions may be used as precedents or serve as the basis for establishing new regulations and standards to be used throughout the agency.

6. Personal Contacts - Level 6-3 - 60 points

Personal contacts are typically with inspectors, engineers, and other specialists within the agency and with coal mine operators and their representatives and manufacturers of mining equipment.

7. Purpose of Contacts - Level 7-3 - 120 points

Represents the agency in resolving differences with mine operators over the most sensitive issues dealing with roof control safety. In many cases this involves issues for which there are no clear-cut answers. The data may be dubious, situations atypical, etc. The specialist's persuasiveness and recognized expertise are brought to bear in resolving controversies. Operators are often trying to minimize expenditures of time and money. The specialist must convince them of the importance of safety precautions, some of which may be costly.

8. Physical Demands - Level 8-3 - 50 points

Regularly conducts onsite investigations in underground coal mines. Onsite investigations require considerable and strenuous physical activity. Most of the time is spent walking,

crouching, and standing. Carries heavy inspection and testing equipment and instruments. Occasionally stoops all day in mines one meter (three or four feet) high or crawls through areas that are even lower.

9. Work Environment - Level 9-3 - 50 points

Inspects underground coal mining which by its very nature is a hazardous and stressful operation. In addition to the characteristically dark, wet, and cramped environment, underground coal mines contain noxious gases and fumes and the dangers of coal dust or gas explosions, electrical fires, and roof falls. Inspecting mines with unusually stubborn roof control problems or immediately following an accident increases the risks to the health and safety of the inspector.

**TOTAL POINTS - 2805**

**COAL MINE SAFETY AND HEALTH INSPECTOR (ELECTRICAL),  
GS-1822-12, BMK#5**

Duties

As an inspector who specializes in issues and problems relating to electrical facilities and systems in coal mines, conducts onsite inspections and investigations and gives advice and assistance concerning electrical matters relating to a variety of coal mines. For example:

- Conducts thorough inspections of electrical systems and facilities at mines that have their own power centers.
- Investigates fatal and serious nonfatal accidents involving malfunction, misuse, or mishandling of electrical facilities or equipment.
- Advises mine operators on planning, operating, and maintaining electrical systems that safely meet the needs of their mines.
- Advises and assists general coal mine inspectors on electrical problems they encounter during the course of their work.
- Conducts investigations for field change and field approvals of critical pieces of electrical equipment.

The following are routine duties that may be found at any independent working level:

- Prepares written reports of inspections and investigations.
- Testifies at judicial hearings regarding notices of violations and orders of withdrawal.
- Promotes and participates in conducting mine rescue and first aid competitions.

1. Knowledge Required by the Position - Level 1-7 - 1250 points

Applies a thorough knowledge of the processes, methods, and systems utilized to mine coal to identify hazards to the safety and health of workers in any aspect of typical mining processes, and to recommend corrective actions. Applies thorough and up-to-date knowledge of how to plan for, operate, and maintain electrical systems and facilities in order to evaluate existing systems for safety and consistency with Federal laws and regulations, and to advise mine operators on how to plan for and operate such systems. This also includes an expert knowledge of planning and operating high voltage equipment and facilities which supply electricity for mines.

2. Supervisory Controls - Level 2-4 - 450 points

Supervisor assigns periodic electrical inspections of coal mines. Inspector schedules day-to-day work, setting priorities. Receives many special assignments requiring immediate action. Supervisor may indicate priority of such work and inspector adjusts schedule accordingly. Plans and carries out work independently interpreting regulations and adapting precedents when necessary. Submits reports, notices, and orders after the fact for signature of higher level authority. Judgments are accepted as technically sound. Unusual interpretations or potentially controversial findings are reviewed for broad program and policy implications.

3. Guidelines - Level 3-3 - 275 points

Guidelines are the coal mine safety and health regulations, the national electrical code, agency policy memoranda, and the electrical inspector's manual. Uses judgment to adapt standards and regulations that are not clearly applicable and to determine appropriate procedures for handling situations not addressed in the inspector's manual. Especially when investigating unusual technical problems, safety hazards, and mine disasters, published guidelines may have little applicability. On such assignments, decisions are based largely on experienced judgment. Participates on national committees to resolve major industry wide electrical problems and to develop new electrical regulations and inspection procedures.

4. Complexity - Level 4-5 - 325 points

Assignments involve a wide range of issues and problems relating to the safety of electrical systems, facilities, and equipment used in underground coal mines. The primary day-to-day activity is making comprehensive electrical inspections of underground coal mines that have

their own power systems. These inspections and other investigative and advisory responsibilities are often, but not always, characterized by problems relating to: (1) inadequate electrical equipment and facilities, (2) the lack of competent electrical staff, (3) incompatibility between production/financial concerns and safety demands; (4) hazards that are difficult to pinpoint and correct.

Examples of assignments include:

- making complete onsite electrical inspections of mines with special characteristics such as systems and methods for which traditional inspection procedures are not applicable and safety implications are not well known.
- investigating accidents involving malfunctioning, mishandling, or misuse of electrical facilities or equipment. Often evidence has been destroyed in the accident and facts have gotten confused. Considerable probing is necessary to obtain information about the accident. Sometimes conclusions must be drawn from scanty or incomplete data.
- advising mine operators who do not have adequate electrical staff on how to plan and install, or maintain electrical systems and facilities that are adequate and safe for the mine's particular needs and characteristics.
- advising other inspectors on handling new and unusual electrical issues and problems, or on the acceptability of marginal electrical equipment.

#### 5. Scope and Effect - Level 5-4 - 225 points

The scope of the work includes conducting inspections and investigations at mines with special electrical problems or needs, advising operators on how to plan and maintain electrical systems that meet their production needs and safety regulations, and providing guidance and advice to other inspectors on electrical issues. Decisions affect the enforcement of electrical regulations at individual coal mines. The inspector's decisions as to the acceptability of electrical systems in individual mines often determine whether or not those mines may continue to operate.

#### 6. Personal Contacts - Level 6-3 - 60 points

Personal contacts are typically with other inspectors and supervisors in the agency, State inspectors, and persons involved in the coal mining industry (e.g., mine operators and their representatives, union leaders, and workers in the mines).

#### 7. Purpose of Contacts - Level 7-3 - 120 points

The most demanding contacts involve convincing mine operators of the need for costly electrical expenditures. The safety issues involved are often not clear cut, so the inspector's decisions and suggestions may meet with challenge. In these situations, persuasiveness and recognized expertise are essential. Accident and complaint investigations often bring the

inspector into a hostile environment. The inspector must balance tact with authority to obtain information and identify possible hazards and violations.

8. Physical Demands - Level 8-3 - 50 points

Regularly conducts onsite inspections of underground coal mines. This work requires continuous and strenuous physical activity. Much of the time is spent walking, crouching, and standing. Carries for long periods of time heavy testing equipment and instruments. Often climbs high ladders to gain access to large electrical facilities and equipment. In parts of the country where coal seams are narrow, may stoop all day in mines one meter (three of four feet) high, or crawl through even more narrow areas.

9. Work Environment - Level 9-3 - 50 points

In addition to exposure to the risks of roof falls, fires, explosions, and noxious gases and fumes in underground coal mines, often required to investigate mines that are suspected of having serious electrical problems. This increases the threat of fires or explosions. Inspecting high voltage electrical equipment also poses a particular hazard.

**TOTAL POINTS - 2805**

## **MINE SAFETY AND HEALTH SPECIALIST, GS-1822-12, BMK#6**

### Duties

Performs the final administrative review and adjustment within the agency of cases in which penalties proposed for assessment through the application of standard formula criteria are contested by alleged violators. Conducts conferences with alleged violators, (e.g., mine owners, operators, or employees) and their representatives to negotiate the resolution of contested assessments and induce compliance with mine safety and health standards.

- Reviews requests for conferences submitted by those charged with violating coal, metal, and/or nonmetal mine safety and health regulations and determines whether or not to conduct a conference, what issues are appropriate for discussion, and who the participants will be.
- Conducts conference with alleged violators. Reviews the administrative record, including citations issued, inspectors' reports, and the operator's history of previous violations. Checks the accuracy of formula penalty assessments to verify that interpretations, resulting point totals, and dollar amounts are consistent for the type of violation and the circumstances under which it occurred.
- Hears new evidence and arguments on issues such as the nature of violations, good faith on the part of the operator in attempting to comply, extenuating circumstances, the seriousness (gravity) of the offense, and the effect of the penalty on the operator's ability



to conduct business. Determines what adjustment (if any) in the proposed penalty is appropriate and notifies the participants of final decision, orally and in writing. Decisions of the employee are normally binding on the agency and the operator unless contested before the Federal Mine Safety and Health Review Commission.

- Negotiates with mine owners and operators to get them to abate violations and correct unhealthy or unsafe conditions under threat of financial penalties.
- Provides advice to members of the mining industry on the interpretation and application of agency health and safety standards and regulations, and alternative ways of achieving compliance.
- Contacts officials of the mining industry, equipment manufacturers, mine inspectors, agency health and safety specialists, and other who may provide information pertinent to contested violations.

#### Factor 1, Knowledge Required by the Position - Level 1-7 - 1250 points

- Comprehensive practical knowledge of mining processes and methods, and electrical and mechanical systems, machinery, and equipment used in the mining industry. Knowledge is used to visualize the conditions under which violations took place and safety and health hazards present.
- Thorough knowledge of Federal mine safety and health regulations, policies, and administrative procedures (i.e., relating to inspections and the assessments conference process) in order to determine the severity of violations and assure that assessments are proper and consistent with agency precedents and regulatory guidelines.
- Detailed knowledge of mine safety and health hazards and techniques for their detection and measurement. Knowledge is used to make decisions concerning the gravity (seriousness) of violations of the Act, good faith on the part of the operator, and the probability that accidents will occur.

#### Factor 2, Supervisory Controls - Level 2-5 - 650 points

The employee works directly under a supervisory mine safety and health specialist who provides general administrative direction. The supervisor assigns standard formula assessment cases (i.e., those cases involving minor injuries, accidents, violations, or failures to comply with safety and health regulations) for which alleged violators are contesting proposed penalties and have requested a conference with agency officials. Cases assigned may involve coal, and/or metal, nonmetal, surface, and underground mines and mining companies within a designated region of the United States. Assignments are made in terms of broad program and mission goals, such as achieving compliance with mine safety and health laws, and regulations administered by the agency, and preventing and abating hazardous conditions in many different geographic locations.

The incumbent independently plans and conducts assessment conferences with alleged violators, their representatives, and other interested parties. Responsibilities include determining the subject matter of each conference and deciding who will be permitted to participate. Following the presentation of evidence and discussion of issues, the incumbent decides whether or not to adjust (i.e., lower, raise, or cancel) proposed assessments and informs the participants of the decision, orally and in writing. In deciding cases and adjusting assessments the incumbent independently exercises signatory authority on behalf of the Secretary of Labor. The conference normally constitutes the highest level of review of proposed assessments within the agency. Decisions issued by the employee are final and binding on the employing agency, the U.S. Government, and the mining industry unless formally contested before the Federal Mine Safety and Health Review Commission.

#### Factor 3, Guidelines - Level 3-3 - 275 points

Guidelines are the Federal Mine Safety and Health Act of 1977 and agency policies, standards, and regulations covering implementation of safety and health provisions of the Act. These include civil penalties for violations of the Act, and published standard formula criteria for their assessment; agency manuals covering the inspection of surface and underground mines; technical manuals on the operation and use of electrical and mechanical equipment; and agency administrative policies and procedures.

The incumbent uses judgment in interpreting and adapting guidelines for the formula assessment of civil penalties to violations which are within the scope of the formula process. The incumbent independently applies guidelines in light of new information about violations, analyzes resulting penalties for propriety and consistency with agency policies and case precedents, and makes decisions concerning the adjustment of penalty amounts within, in the scope of the guidelines.

#### Factor 4, Complexity - Level 4-4 - 225 points

Work involves conducting assessment conferences with mine owners and operators, mine workers, and their representatives. Work also involves gathering and evaluating evidence (e.g., case files, reports by Federal mine inspectors, statements and photographs); developing new information through contact with mine owners or operators and mine workers; and hearing arguments concerning the circumstances surrounding alleged violations and the severity of proposed penalties. The employee makes decisions concerning the adjustment of penalties arrived at under standard formula assessments. Decisions require the employee to consider such factors as: The appropriateness of the penalty to the size of the business of the operator charged; the operator's history of previous violations; negligence; gravity (seriousness) of the violation; good faith of the operator in attempting to achieve compliance; and the effect of the proposed penalty on the operator's ability to continue in business.

The employee independently interprets agency policies, and regulations governing surface and underground coal and/or metal and nonmetal mining violations occurring in mines operated by different companies in various geographic areas. Decisions made by the

employee often involve the interpretation and consideration of conflicting evidence concerning the nature of alleged violations and the circumstances under which they occurred.

#### Factor 5, Scope and Effect - Level 5-4 - 225 points

The primary purpose of the work is to adjust standard formula penalty assessments which are being contested by those charged with violations. Work also involves inducing mine owners, operators, and employees to comply with safety and health standards promulgated by the agency.

The employee reviews and analyzes the administrative record containing citations for violations and reports of inspectors, and proposed penalty assessments to determine the propriety and consistency of prior agency actions. Work requires developing new information where necessary and determining what adjustment (if any) is to be made in the amount of proposed penalties. Work also involves hearing arguments from those charged with violating the Act and their representatives concerning the circumstances under which violations occurred and the severity of proposed penalties.

The employee's decisions concerning the adjustment of assessments directly affect the profitability of mining operations conducted by major companies. Work indirectly improves health and safety conditions in many mines in different locations by inducing industry compliance with health and safety regulations. Decisions rendered by the incumbent in cases involving contested formula assessments are normally final within the agency.

#### Factor 6, Personal Contacts - Level 6-3 - 60 points

Contacts are with mine owners and operators or their representatives, mine workers and representatives of organizations of mine workers throughout the region to which assigned.

Contacts take place in the course of arranging and conducting assessment conferences. Arrangements for conferences are made well in advance, in accordance with agency administrative procedures and regulations. The employee also has personal and telephone contacts characteristic of lower levels of this factor (e.g., with mine inspectors, district managers, assessments specialists, and staff specialists in agency headquarters).

#### Factor 7, Purpose of Contacts - Level 7-3 - 120 points

Contacts with mine owners and operators, mine workers, or their representatives are for the purpose of discussing issues in contested formula assessments arising from violations of the Federal Mine Safety and Health Act (1977, as amended). Conferences are held to afford those charged with violating the Act to present arguments and evidence concerning the circumstances surrounding alleged violations and/or the severity of penalties levied. Issues discussed at conferences involve disagreements over the interpretation and application of standards and guidelines governing formula assessments. The employee also attempts to persuade violators to comply with regulations promulgated by the agency. The employee,

during the course of contacts, provides technical guidance on the use of alternative work methods and procedures that would not be in violation of mine safety and health regulations. Additional contacts characteristic of lower levels of this factor are with coworkers, mine inspectors, district managers, and headquarters staff specialists. Contacts are for the purpose of developing information about contested violations.

Factor 8, Physical Demands - Level 8-1 - 5 points

Work is sedentary, being performed for the most part while seated at a desk or conference table. There is occasional physical exertion required when visiting the site of alleged violations in surface or underground mines to gather evidence.

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

Work is performed primarily in an office setting which is properly heated, lighted, and ventilated and devoid of unusual risks or discomforts. The employee may encounter adverse weather conditions and occasionally be required to wear protective clothing and safety gear when visiting the site of alleged violations or when providing onsite advice and training to mine industry officials and mine workers.

**TOTAL POINTS - 2815**

**MINE SAFETY AND HEALTH SPECIALIST, GS-1822-13, BMK#1**

Duties

Performs the final administrative review and adjustment within the agency of cases in which civil penalties determined through a special assessments process applied to very serious and/or unusual violations of the Federal Mine Safety and Health Act (e.g., fatalities, serious injuries, patterns of violations or unwarrantable failures to comply with mandatory safety and health standards) are contested by alleged violators (e.g., mine owners and operators).

- Reviews requests for conferences submitted by alleged violators who wish to contest proposed penalties and determines whether or not a conference should be conducted, what issues are appropriate for discussion, and who may participate.
- Conducts conferences with requesters to discuss issues related to alleged violations, (e.g., proposed penalty amounts), hear new evidence, and give interpretations of mine safety and health regulations.
- Reviews the administrative record of alleged violations (e.g., citations, inspectors' reports, and assessment determinations); examines new evidence (e.g., photographs of mining equipment and structures, and statements of mining company officials) concerning circumstances under which violations occurred; and hears arguments regarding the severity of violations and/or amount of assessed penalties.

- Contacts mine owners and operators, employees, Federal mine inspectors, agency headquarters technical experts, and equipment manufacturers to develop new information about alleged violations in coal, metal, and other mineral mines.
- Negotiates with mine owners, operators, workers, or their representatives to adjust penalties for violation of a serious nature which affect the operations of many mines owned or operated by the same or different companies. Determines the type of adjustment (i.e., up or down), and notifies participants of final decisions orally and in writing. Induces industry compliance with mine safety and health standards.
- Provides technical guidance to mine owners and operators concerning alternative ways of achieving compliance with Federal mine health and safety standards and regulations.

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

- Comprehensive practical knowledge of mining processes and methods, and electrical and mechanical systems, machinery, and equipment used in the coal, metal, and nonmetal mining industries (including milling operations). Knowledge is applied in visualizing and reconstructing the conditions under which an alleged violation took place, and in determining the severity of the violation.
- Thorough knowledge of Federal mine safety and health regulations, precedent-setting decisions, agency policies, and administrative procedures of the assessments process in order to determine whether citations issued and proposed special assessments are consistent with agency policy and regulatory guidelines and available evidence.
- Detailed knowledge of mine safety and health hazards, techniques for their detection and measurement, and their short and long-term effects. Knowledge is used to make judgments concerning the gravity and severity of violations of the Act, and to obtain compliance with agency policies.

Factor 2, Supervisory Controls - Level 2-5 - 650 points

The employee works directly under a supervisory mine specialist who provides general administrative direction. The supervisor assigns very difficult, sensitive, and unusual cases (i.e., those cases involving serious injuries, fatalities, patterns of violations, or unwarrantable failures to comply with safety and health regulations) for which alleged violators are contesting proposed penalties and have requested a conference with agency officials. Cases assigned may involve coal, metal, nonmetal, surface, and underground mines and mining companies within a region of the United States. Assignments are made in terms of broad program and mission goals, such as achieving compliance with mine safety and health laws and regulations administered by the agency, and preventing and abating hazardous conditions in many different geographic locations.

The incumbent independently plans and conducts assessment conferences with alleged violators, their representatives, and other interested parties. Responsibilities include

determining the subject matter of each conference and deciding who will be permitted to participate. Following the presentation of evidence and discussion of issues, the incumbent decides whether or not to adjust (i.e. lower, raise, or cancel) proposed assessments and informs the participants of the decision, orally and in writing. In deciding cases and adjusting assessments the incumbent independently exercises signatory authority on behalf of the Secretary of Labor. The conference normally constitutes the highest level of review of proposed assessments within the agency. Decisions issued by the employee are final and binding on the employing agency, the U.S. Government, and the mining industry unless formally contested before the Federal Mine Safety and Health Review Commission.

#### Factor 3, Guidelines - Level 3-4 - 450 points

In addition to guidelines for the formula assessment of civil penalties, guides regularly used in the work include the Federal Mine Safety and Health Act of 1977; agency regulations covering civil penalties for violations of the act, and criteria and procedures for their assessment; excerpts from Code of Federal Regulations, Title 30, Mineral Resources, relating to coal, metal and nonmetal mines; agency manuals pertaining to the inspection of underground and surface mines and related agency policies and procedures; equipment and manufactures operating instructions; decisions of the Mine Safety and Health Review Commission; and published appeals court decisions.

The employee uses initiative and resourcefulness in deviating from traditional formula methods for the assessment of civil penalties to redetermine and/or adjust penalties for very serious and/or unusual violations and circumstances for which formula criteria are not appropriate (e.g., special assessments involving fatalities, serious injuries, or patterns of violations). Final decisions rendered by the incumbent frequently become agency precedents for the assessment and/or adjustment penalties for similar types of violations.

#### Factor 4, Complexity - Level 4-5 - 325 points

Work involves scheduling and conducting assessment conferences with miner owners and operators, mine workers, and their legal and safety representatives, and making decisions concerning the adjustment of proposed financial penalties. Work also involves gathering and evaluating evidence (e.g., case Files, reports of Federal mine inspectors, statements, and photographs); developing new information through dialogue with those contacted; discussing issues of mine safety and health with alleged violators or their representatives; hearing new evidence; and hearing arguments concerning the circumstances under which citations were issued and the amount of proposed penalties.

Issues resolved by the employee involve coal, metal and nonmetal mines, surface and underground mines, related milling operations, and the full range of mining methods, equipment, and health and safety hazards dealt with by the agency.

In making adjustment decisions, the employee must select and interpret from among the full range of agency administrative regulations, policies and precedents, and Mine Safety and Health Review Commission, precedent decisions for application to new and changing mining

processes, and health and safety hazards the long-term effects of which are not fully understood. In making adjustment decisions the employee must take into account the existence of such factors as: conflicts between agency regulations and a company's production processes and cost factors; appropriateness of a penalty to the size of the business of the operator charged; history of previous violations; good faith in attempting to abate violations and comply with agency regulations; mitigating circumstances; changes in technology; negligence; probability of occurrences; serious injuries and/or fatalities; unwarrantable failures to comply with mandatory safety and health standards; patterns of violations; discrimination under the Act; and the effect of a penalty upon the mine operator's ability to continue in business. The employee must also take into account the probable effect of the penalty or an adjustment thereto on the operator's failure compliance with regulations.

Work requires developing new information about alleged violations and making independent decisions to adjust (i.e., raise or lower) proposed penalties based upon information developed during the conference process (e.g., concerning extenuating circumstances, negligence, good faith, or culpability). Decisions rendered by the incumbent set precedents within the agency concerning the application of standards and as such provide authoritative guidance to the mining industry concerning the acceptability of work methods and equipment.

#### Factor 5, Scope and Effect - Level 5-5 - 325 points

The purpose of the work is to provide a final administrative review and adjustment within the agency of cases in which proposed civil penalties generated through the special assessments process are contested by' alleged violators. Work involves negotiating the resolution of contested penalty assessments through review of the administrative record, developing new evidence, hearing arguments advanced by alleged violators, discussions with management, and interpretation of agency policies, standards, and regulations. Work predominantly involves the discussion and resolution of very serious matters (i.e., fatalities, serious injuries, unwarrantable failures to comply with mandatory health and safety standards and/or patterns of violations) which are not subject to penalty determination through the formula assessment process.

Decisions rendered by the employee (i.e., to raise, lower, or cancel proposed penalties) contribute directly to the success of the agency's enforcement mission by inducing widespread compliance by the mining industry with health and safety standards. A single decision often sets a precedent for work practices in many mines owned or operated by the same and/or different companies.

Work affects the well-being of mine workers and mining operations in coal, metal and nonmetal mines in any geographic locations.

#### Factor 6, Personal Contacts - Level 6-3 - 60 points

Personal contacts are with owners and operators of coal, metal and nonmetal mines, their attorneys and safety representatives, and officers and other authorized representatives of organizations of mine workers (e.g., union stewards of United Mine Worker locals).

Contacts take place in a conference setting at which interested parties are present. Arrangements for conferences are made well in advance, in accordance with agency administrative review procedures.

Personal and telephone contacts characteristic of lower levels of the factor are with coworkers, mine inspectors, district managers, assessments specialists, agency and Labor Department attorneys, and staff specialists in agency headquarters.

#### Factor 7, Purpose of Contacts - Level 7-4 - 220 points

Contacts with mine owners and operators, mine workers, or their authorized representatives (e.g., legal, safety, or other) are for the purpose of negotiating the resolution of contested assessments of substantial fines or other civil penalties based upon very serious violations of the Federal Mine Safety and Health Act (1977), as amended, and inducing compliance with controversial safety and health standards. Conferences are held in order to permit alleged violators to present facts, arguments, and new evidence concerning the circumstances surrounding alleged violations and/or amounts of proposed penalties. Issues discussed are of considerable importance to the attainment of agency program goals, the long range safety and health of many miners (e.g., serious injuries, fatalities, patterns of violations, unwarrantable failures to comply with Federal mine safety and health standards) and business and financial interests of mining companies (e.g., negligence, gravity, good faith, and substantial fines).

The conference is the final stage of the administrative process at which proposed penalties may be adjusted (i.e., lowered, raised, or canceled) within the agency. The incumbent adjusts the severity (i.e., the amount) of proposed penalties in accordance with the facts, case law, regulations, and extenuating circumstances to assure that existing hazards and potential hazards are abated, and that Federal laws and regulations are obeyed. The incumbent also provides technical advice and guidance on the use of alternative work methods and mining procedures that are in compliance with mandatory health and safety regulations.

Contacts characteristic of lower levels of this factor with coworkers, mine inspectors, district managers, and headquarters staff specialists are for the purpose of developing information concerning work methods, equipment, conference cases, laws, regulations, and precedents related to contested violations.

#### Factor 8, Physical Demands - Level 8-1 - 5 points

For the most part the work is sedentary. However, there may be some occasional mild physical exertion, e.g., walking and standing when going to and from conferences, or visiting the site of alleged violations. No special physical demands are placed upon the incumbent in performing the work.



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

Work is performed primarily in an adequately heated, lighted, and ventilated office setting, devoid of unusual risks or discomforts. The incumbent may occasionally be required to wear protective gear (e.g., a hardhat or gas mask) when visiting mines and milling operations.

**TOTAL POINTS - 3290**