

Jack Spadaro
Mine Safety & Health/Environmental Consultant
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Environmental Investigations Mining
Mine Accident Investigations

Professional Experience

- 1) Mine Health & Safety and Environmental Consultant 10/2004 to Present**
Hamlin, WV

Duties and Accomplishments

I provide consulting services and expert witness services to attorneys, labor unions, companies, and organizations involving the health and safety of miners in surface and underground coal and metal/non-metal mines and mineral processing facilities on a national basis. I also provide consulting services regarding storm water runoff and surface and underground mine environmental conditions related to water quality, ground water systems, mine waste and tailings areas, surface drainage control facilities, and stability of coal refuse dams, mine tailings areas, and valley fills.

I provide expertise in the application of the Mine Safety and Health Act to clients needing advice and knowledge of the federal regulations and industry standards related to mine worker health and safety. I also provide services regarding the Federal Surface Mining Control and Reclamation Act (SMCRA) and the Clean Water Act. I have testified in state courts regarding flooding and storm water runoff related to surface mining operations, gas and oil well construction sites, highway construction, valley fills, landslides, dams, mining waste areas, and drainage control structures.

I provide expert witness services related to mining accidents and the mining environment at coal mines and metal / non-metal mines. I have served as an expert witness in litigation related to the Mine Safety and Health Act and SMCRA from 2004 to the present time. The expertise is related to surface and underground haulage accidents, roof and rib control, exposure of workers to hazardous chemicals, mine tailings areas, mine dust exposure, stability of dumping sites, safety of road gradients, explosions, surface and underground transportation, crushers and processing plant safety, and the overall mine work environment. I have served as an expert witness in cases related to storm water runoff from surface mines and gas well construction sites and pipeline construction. I have served as an expert witness in complex litigation involving multiple plaintiffs and have served as an expert witness in federal and state courts. The testimony required extensive knowledge of mining and the mine environment and a thorough knowledge of

both federal and state mine health and safety regulations and environmental regulations related to water quality and storm water runoff control. I have been involved in litigation involving flooding and the stability of coal waste impoundments and surface mine waste fills. I have also testified as an expert regarding control of storm water runoff from gas and oil well drilling operations and pipeline construction activities. These cases involved regulations and standards related to storm water runoff and stability of earth and rock fill structures that I had a role in writing during my earlier career with the Office of Surface Mining and the Mine Safety and Health Administration. I have testified in federal district court regarding landslides and storm water runoff damage from oil and gas drilling operations that caused damage to downstream residents.

I have conducted investigations of mining accidents in coal mines and metal/non-metal mines and related mineral processing plants and tailings areas. I wrote reports detailing the root causes of the accidents and made recommendations for improvement of the mine operations regarding health, safety, and the environment. I have been recognized as an expert in mining safety and health and the mining environment at academic conferences examining the mining industry.

2) MSHA Academy Superintendent, GS-1712-15

9/30/98 to 9/30/04

Employer

**U.S. Department of Labor
Mine Safety and Health Administration
National Mine Health & Safety Academy
1301 Airport Road
Beaver, WV 25813**

Supervisor

**Davitt McAteer
Assistant Secretary of Labor
for Mine Safety and Health**

Duties and Accomplishments

The National Mine Health and Safety Academy is the principal training facility for all federal Mine Safety and Health Administration (MSHA) inspectors and for other mining interests. As superintendent of the Academy, I provided leadership and exercised overall planning and management control, direction and coordination of resources, activities, programs, and facilities of the Academy, including the development, establishment and implementation of policies and procedures; the planning, development and implementation of national and international education and training programs in mine health and safety; and operation of the Academy's physical facilities. I determined program goals and exercised decision-making authority within the parameters of MSHA policy and program objectives. During my tenure, I developed and implemented a Strategic Plan for improving the quality of training and the production of training materials for mine inspectors and industry.

Through subordinate managers, I directed a staff of professional, technical, and clerical personnel in the conduct of a variety of comprehensive programs designed to accomplish

the Academy's goals. During my tenure, the Academy had a staff of 65 full-time federal employees and 67 contract employees. I planned, developed, and implemented the educational and training programs of the Academy. I developed program goals, objectives and proposals. I was responsible for the development and administration of individualized study materials and education programs for nonresident students from federal, state, and local government agencies, from industry and labor organizations, and from educational institutions.

I planned and developed seminars and conferences on mine safety and health and related programs to be conducted at the Academy and at other locations. I was responsible for overseeing the management of the Technical Information Center and Library, and for acquiring and making available appropriate and up-to-date reference materials to meet customer needs.

I was responsible for development of studies designed to evaluate the effectiveness of the Academy's educational programs, and to determine needs for revisions in curricula based on changes in materials, industries and in educational processes. I also directed significant changes in the curricula for Entry Level and Journeyman MSHA inspector training.

I was responsible for development and implementation of support programs for services at the Academy for staff, faculty, and students. Support programs include administrative services, ancillary staff services support, student housing, recreation, internal safety, health services, and physical plant services. I managed the implementation of a capital improvement program to modernize classrooms, residence halls and computer capabilities.

I maintained liaison with key officials in MSHA, academia, industry and other organizations concerned with improved education techniques and methodologies related to safety and health issues. I developed and maintained relationships with universities, colleges, vocational schools, and secondary school to promote training and educational courses in the mineral industries, and to further the recognized stature of the Academy as a leading educational institution in mine health and safety. I participated in cooperative agreements with several colleges and universities and the Appalachian Consortium.

I delegated authority to subordinate managers for the personnel and program management of their respective areas. I evaluated the performance and review evaluations of subordinate supervisors. I conducted staff meetings, and provided advice and counsel on both program and administrative matters, and guidance in the solution of special problems. During my tenure, I helped improve the effectiveness of each program area by communicating regularly and exchanging information among departments.

I served as a team leader in the investigation of the Martin County Coal Slurry Discharge, which occurred on Oct. 11, 2000 in Martin County, Kentucky. I managed the geotechnical engineering investigation of the slurry discharge, which was the largest and most serious pollution event in the eastern United States. I oversaw the drilling

operations, laboratory analysis and the writing of the engineering evaluation regarding the causes of the incident.

During my tenure, I upgraded all training programs at the Academy. As a result, course days of training the Academy increased from 497 to 2,200. Enrollment increased from 17,000 students per year to 30,000 students per year.

3) Deputy Superintendent, GS-301-14

1/05/97 to 8/30/1998

Employer

**U.S. Department of Labor
Mine Safety and Health Administration
National Mine Health and Safety Academy
1301 Airport Road
Beaver, WV 24813**

Supervisor

**Davitt McAteer
Assistant Secretary of
Labor for Mine Safety
and Health**

Duties and Accomplishments

As deputy superintendent, I was the day-to-day operations manager at the National Mine Health and Safety Academy. I assisted the Superintendent to plan, develop and implement the education and training programs of the Academy. I worked with department managers to direct a staff of professional, technical, and support personnel in the conduct of comprehensive programs designed to accomplish the Academy's goals.

I oversaw the human resources program for Academy employees, including work assignments, performance [standards, appraisals, rewards, disciplinary actions], safety and health programs, counseling, complaint systems, and leave systems. I worked directly with federal and state agency administrators to conduct research and technology transfer projects to further the Academy's goals.

I supervised the implementation of a long-term Strategic Plan that outlined the mission of the Academy. The plan included faculty and staff development and a program development plan to provide training programs and instructional materials that meet the highest educational and technical standards of quality. I directed attention to essential technical areas to provide improved training in surface and underground haulage safety, roof control safety, underground machinery and electrical safety, and industrial hygiene related to the mine environment. I guided a pilot training program in Surface Mine Haulage safety that is being used as a model for future programs.

I devised a restructuring plan for the Academy and supervised its implementation. The plan created new divisions in mining technology, safety management, inspection automation, and course development. I supervised a staff of 62 full-time federal employees and 58 contract employees. I supervised the departments of Instructional

Services and Instructional Materials, the Technical Information Center and Library, and the Facilities Support Services.

The reorganization of the Academy resulted in a more even distribution of work by Academy employees and more effective education and training to MSHA inspectors, miners, mine supervisors, and training specialists. I set up committees to develop new programs and improve existing programs. Altogether, 16 working committees, made up of staff members from various disciplines, took on projects to improve the Academy's curricula and other Academy functions. These committees completed comprehensive plans in the areas of Program Development, New Technology in Training, Academic/International Relations, Facilities Utilization, Community Relations, Individual Development, Internet Usage, Library Usage, Marketing of the Academy's courses and products, and use of the Mine Simulation Laboratory. The New Technology Committee completed an outline of the best methods for delivering mine safety and health-related training to the mining community.

I initiated the development of roof control seminars to provide training to all coal mine inspectors that will ensure that the most current information in this subject area will be made available to the inspectors. I also initiated conferences and seminars in the areas of noise and dust control in the mining environment, ventilation, blasting, construction, underground haulage safety, maintenance and repair safety, surface haulage safety, electrical hazards and inspection methods, and accident investigation.

I supervised the revision of entry-level training modules for metal, nonmetal and coal mine inspectors. The revision emphasized critical areas of the inspection process so that the early training is meaningful and comprehensive.

Under my supervision, the Academy negotiated cooperative agreements with six colleges and universities and joined the Appalachian Consortium to broaden the institution's expertise in various subject areas related to mine health and safety. The agreements include faculty exchanges, summer intern programs, and distance learning programs.

I included labor representatives in all phases of planning and implementation of revised and new programs. I created an individual development program that ensures that all employees have equal opportunity for advancement and additional professional development. This program allows Academy staff and students to receive credit toward associate, bachelor and master's degrees for courses taken at the Academy.

In 1998, I traveled to Russia and Ukraine to begin the development of an International Mine Health and Safety training program. Between 1998 and 2003, delegations from Russia, Ukraine, South Africa, China, Mexico, Poland, Peru, Georgia, Canada, Mexico, Thailand, and Indonesia have trained in mine health and safety at the Academy.

4) Mining Engineer, GS-880-13

4/96 to 1/97

Employer

Supervisor

**U.S. Department of Labor
Program Evaluation and Information Resources
4015 Wilson Boulevard
Arlington, VA 22203-1984**

George Fesak

I conducted a study of 1,300 haulage accidents at coal mines and metal / non-metal mines and wrote a report regarding the causes of the accidents. I made recommendations for haulage safety program that has been adopted by MSHA. I also served as special assistant to the Superintendent of the National Mine Health and Safety Academy to work on curriculum expansion in the areas of mine ventilation, underground haulage accident prevention, roof control, underground mine electricity and machinery, and health. I presented a technical paper at a seminar at Virginia Polytechnical Institute and State University in August 1996. The technical paper has been used as a basis for developing the new training program in surface and underground haulage and equipment safety.

I evaluated the overall training needs for the Academy and recommended a program that included a research-driven curriculum that was aimed at eliminating fatalities and injuries in mines. The program included intensive use of staff experienced in mine safety enforcement that would meet the needs of the inspection force and the mining industry.

I planned a training program for new surface haulage instructors that began in November 1996. The program was key to a nationwide inspection and enforcement effort that concentrated on the critical safety and health needs of industry regarding steep haul roads, unsafe dump and fill sites, and vehicle maintenance programs.

5) Mining Engineer, GS-880-13

3/82 to 4/96

Employer

Supervisor

**Office of Surface Mining
U.S. Department of Interior
10 Parkway Center
Pittsburgh, PA 15520**

James Gilley

Duties and Accomplishments

I was responsible for design and construction of health and safety hazard abatement, acid mine drainage abatement, landslide stabilization, subsidence control, surface water runoff drainage control, and mine fire projects in Kentucky, Virginia, West Virginia, Ohio, Indiana, Pennsylvania, Georgia, and Illinois.

I served as project engineer on approximately 300 mining-related landslides, drainage control projects, coal refuse fires, underground mine subsidence, and mine fire emergency projects. I evaluated causes of landslides and designed remedial construction measures that included control of storm water runoff for approximately 200 landslides. I also provided technical assistance to Office of Surface Mining field offices regarding valley fill construction, coal waste disposal, subsidence control, storm water runoff control, and landslide stabilization. I served as an expert witness regarding surface and underground mine operations, valley fill construction, storm water runoff control, landslide stabilization, subsidence, and coal mine reclamation in federal court hearings. I taught mining and civil engineering classes about methods used to abate mining hazards.

I also taught geotechnical engineering methods to mine inspectors and project managers regarding stabilization of earth and rock fill structures. I managed a training program for inspectors and engineers in hydrology and storm water runoff control.

6) Reclamation Supervisor, GS-13

4/78 to 3/82

Employer

Supervisor

**Office of Surface Mining
U.S. Department of Interior
Washington, D.C. 20240**

Richard Hall

Duties and Accomplishments

I supervised inspection and enforcement programs and regulation of surface and underground mining operations on a regional and national level. I wrote regulations for the permanent program for the construction of coal waste embankments, control of surface and underground mine storm water runoff, valley fills, contour mining, mountaintop removal mining, and backfilling and grading on surface mines.

I served as an expert witness in administrative and federal court hearings in West Virginia, Pennsylvania, Virginia and Kentucky. I served as an expert witness regarding roof control and mine subsidence, groundwater movement, coal waste treatment, coal waste dam construction, earth and rock fill design and construction, geotechnical engineering, landslides, surface mine storm water runoff control, surface water movement related to underground mining operations, and reclamation. I evaluated causes of landslides and designed remedial stabilization measures.

I authored papers on construction of earth-and rock fill coal waste embankments. I served as assistant to the director of Inspection and Enforcement in Washington, D.C. I wrote policy directives and supervised the national interim surface and underground mining inspection program. I managed tracking systems for violators and provided guidance to field managers regarding enforcement.

I served as district manager in Pennsylvania and West Virginia. I managed a nationwide training program for new inspectors and managers regarding inspection techniques at surface and underground mining facilities. I taught mining reclamation procedures for storm water runoff control facilities, coal waste embankments, excess mine spoil fills, and haulage road construction.

7) Division Chief

3/73 to 4/78

Employer

Supervisor

**Coal Refuse and Dam Control Division
WV Department of Natural Resources
Charleston, WV 25321**

Ira Latimer

Duties and Responsibilities

I was responsible for development of safety criteria for coal waste embankment construction, dam construction, landslide stabilization, excess mine spoil fills, and surface and underground mine drainage systems for the state of West Virginia. More than 1,500 coal waste embankments and dams were evaluated for safety. I issued enforcement documents to mine owners and supervised an inspection and compliance program for surface and underground mines.

I managed a statewide inspection and enforcement program with a staff of civil and mining engineers, geologists and reclamation specialists. I was also responsible for the review, approval, and inspection of storm water runoff control facilities for surface mines, coal preparation facilities, and surface areas of underground mines.

I taught seminars to train mine inspectors and engineers. I taught on the subjects of slope stabilization procedures for coal tailings areas, waste piles and dams, excess mine spoil fills, hydrology, and design of storm water runoff control structures. I taught all staff about the basics of geotechnical engineering as related to the mining environment. I managed a statewide training program for all dam and waste pile inspectors. I cross-trained all personnel in basic engineering and hydrology pertaining to earth and coal-related structures.

8) Staff Engineer

3/72 to 10/72

Employer

Supervisor

**Governor's Commission of Inquiry
Into the Buffalo Creek Flood
Of February 1972
Charleston, WV 25321**

Ira Latimer

Duties and Accomplishments

I wrote the final report regarding the failure of a coal waste dam in February 1972 that killed 125 people in Logan County, West Virginia. I assembled and evaluated geotechnical engineering and hydrologic data regarding the construction and sudden failure of the dam. I interviewed witnesses and briefed commission members before hearings. I prepared recommendations for coal refuse and dam control regulations that were enacted into law in West Virginia.

9) Mining Research Engineer

1/71 to 3/72

Employer

**Coal Research Bureau
West Virginia University
School of Mines
Morgantown, WV 26505**

Supervisor

James Stump

Duties and Accomplishments

I taught surface and underground mine design, haulage, roof control, ventilation, subsidence control, mineral preparation, and surveying. I conducted research projects in abatement of surface and underground acid mine drainage. This research included analysis of mine water and evaluation of treatment facilities and mine plans to abate acid drainage. I wrote reports about my research regarding the development of mine plans to reduce the possibility of acid drainage formation.

10) Mining Engineer

5/70 to 1/71

Employer

**Semet Solvey Division
Allied Chemical Corporation
Montgomery, WV 25136**

Supervisor

Charles Bowling

Duties and Accomplishments

I worked as a mining engineer in the design of surface and underground mining operations. I developed roof control and ventilation plans and designed valley fills, dams, and sediment control plans. I worked in underground continuous miner sections.

11) Mining Engineer in Training

6/66 to 5/70

Employer

U.S. Bureau of Mines (now MSHA)
Mount Hope and Morgantown, WV

Supervisor

William Park

Duties and Accomplishments

I assisted in training in the areas of roof control, mine ventilation, and coal mine health and safety. I was part of a team that inspected underground mining operations and surface-related facilities to determine compliance with federal health and safety laws. I conducted investigations of fatal roof falls and other accidents in underground coal mines. I conducted ventilation and dust surveys.

Education

Bachelor of Science – Mining Engineering
West Virginia University, 1970

Mount Hope High School, 1966
Salutatorian

Awards/Accomplishments

1991 – Instructor Training, Office of Surface Mining, U.S. Department of Interior
1991 – Meritorious Service Award, Secretary of the Interior
1991 – Impoundment Inspector Certificate, MSHA, U.S. Department of the Interior
1993 – Engineer of the Year Award, U.S. Department of the Interior
2004 – Jenco Foundation Award for Service to Humanity in Appalachia
2004 – Chuck Chambers Public Service Award, W.Va. Environmental Council
2005 – Helen Lewis Community Service Award, Appalachian Studies Association
2006 – First Amendment Award
2010 – Lifetime Achievement Award, Union of Concerned Scientists
2012 – Conservation Achievement Award, National Wildlife Federation