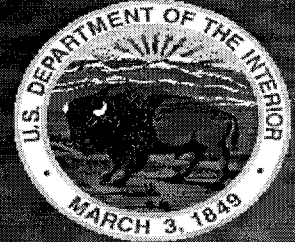
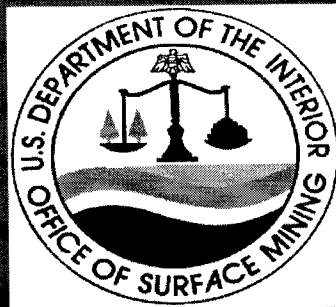
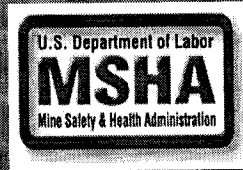
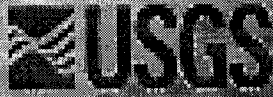


# FEDERAL COAL SYMPOSIUM COMPENDIUM



FEDERAL COAL SYMPOSIUM  
WEDNESDAY, JANUARY 21, 1998  
SPONSORED BY: OFFICE OF SURFACE MINING  
U.S. DEPARTMENT OF THE INTERIOR  
SOUTH INTERIOR BUILDING  
1951 CONSTITUTION AVENUE, NW  
WASHINGTON, D.C.



## FOREWORD

The Federal Coal Symposium held in Washington, DC marks an initial step by the Office of Surface Mining (OSM) and the many other agencies and bureaus from within and outside the Department of the Interior to come together in an open minded collaborative manner. The success of the initial symposium has exceeded our expectations. Lines of communication have been established for the first time, or renewed. Several spin-offs have occurred that resulted from the information and personal contact exchange that transpired during this special event. Our agency is committed to ensuring that the momentum brought about by the symposium be sustained. OSM has scheduled smaller and more focused events to be held in our three regions this fiscal year. We are also exploring the possibilities of holding similar events at our field office locations in the coal fields. We look forward to holding a second national symposium in 1999, perhaps with one or other bureaus joining us in doing so. I wish to express my thanks to those of you who participated as speakers as well as those who attended. I sincerely hope that you found the event to be worthwhile.

Respectfully yours,

*Kathy Karpan*

Kathy Karpan, Director  
Office of Surface Mining

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# EXECUTIVE SUMMARY

by George Stone, Symposium Coordinator

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The Office of Surface Mining (OSM) held its first Federal Coal Symposium on Wednesday, January 21, 1998, in Washington, D.C. at OSM's Headquarters, the South Interior Building. The symposium was the first major event hosted by OSM Director Kathy Karpan. It was the largest event OSM has ever held. More than 250 people registered and attended, including stakeholders from government, industry, environmental and citizen groups.

Through the Symposium, Director Karpan sought to improve OSM relations with its partners who implement coal related programs. In addition, OSM provided a public outreach opportunity that enabled environmental groups and citizens to provide their views on coal mining related issues.

The Government Performance and Results Act (GPRA), has placed additional requirements on OSM and other agencies and bureaus to set goals, measure performance, and report on their accomplishments. The Symposium served as an information sharing opportunity designed to accomplish the following overarching objectives: information exchange between bureaus and agencies; building bridges among programs, budget and GPRA managers and staff; and to identify "best practices" and lessons learned in fulfilling GPRA-related responsibilities.

The Symposium also provided a forum to foster a mutual understanding of current federal programs affecting the coal industry and the remediation of environmental problems stemming from past mining operations. A common ground for understanding economic forecasts and other factors affecting the nature and future of the coal industry was presented. Points of contact among participants were established and participants had an opportunity to speak with people in other agencies which implement programs affecting the coal industry.

The plenary session focused on strategic planning. Bureau heads and senior Department officials from the Interior and Labor departments were asked to discuss the key factors that they are seeking to address over the next decade. Then the Department of Energy's Energy Information Administration presented the key address on patterns, trends and factors that it sees as affecting coal mining, production and usage beyond 2000. EIA's presentation was followed by a panel of representatives from the coal industry, mine workers' union, academia, environmental and citizen groups who were invited to offer their perspectives on factors they think Federal agencies need to be aware of and address in their strategic planning efforts.

In the afternoon, breakout panel sessions were held on more specific topics, including outreach mechanisms to facilitate public participation, partnerships in reclamation, technology and research, federal coal information management, and patterns and trends in inspection, enforcement and permitting.

*Photos by Tami Heilemann*



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# PLENARY SESSION

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## INTRODUCTIONS AND WELCOMING REMARKS

**George Stone, OSM Symposium Coordinator**, welcomed participants and laid out the strategic planning perspective for the day. **Susan Warner, lead facilitator**, discussed the objectives to be accomplished and the ground rules for the plenary and breakout sessions.

## DEPARTMENTAL AND BUREAU SPEAKERS

**OSM Director Kathy Karpan** gave the audience her perspective on some of the unique issues that face OSM, including implementation of regulatory and abandoned mine land reclamation programs largely through the actions of State and Tribal agencies. Director Karpan highlighted three OSM initiatives: the Enhanced Abandoned Mine program which enables the reclamation of non priority 1 and 2 sites which might otherwise go unreclaimed; remining as a means of removing coal deposits which are contributing to acid mine drainage (AMD); and possibly increasing AML fund appropriations in an amount equal to annual collections.

Ms. Karpan spoke about the need to enhance strategic planning involving cross-cutting programs among different bureaus. She discussed some of OSM's pending rulemaking actions and new outreach-oriented approach to rulemaking, including new permitting related ownership and control rules, valid existing rights issues, contemporaneous reclamation, and remining. She ended by urging those present to build upon "the information exchange occurring today."



**George Stone,, Symposium Coordinator**



**OSM Director Kathy Karpan**



**Karpan speaks before the "standing room only" audience**



**OSM Director Karpan, BCOA Pres. Joseph Brennen and NMA Pres. General Richard Lawson**

**Pat Shea, Director, Bureau of Land Management** discussed BLM's mission to conserve and protect public lands in terms of three themes: good-neighbor by establishing a cooperative attitude with the States and other agencies; practice best science and increased effort to incorporate scientifically valid basis into policy decisions; and to promote mobile use, i.e., the type of management should be tailored for a specific area. Mr. Shea also spoke of BLM's coal leasing program. He recapped how the Mineral Leasing Act of 1920 and the Mineral Leasing Act for Acquired Lands of 1947 give BLM responsibility for coal leasing on about 570 million acres of BLM, national forest, and other federal lands, as well as private lands where mineral rights have been retained by the federal government. BLM manages about 33 percent of all coal resources in the United States. Sixty percent of Western coal is federally owned. Director Shea explained that the coal leasing program follows the revised procedures adopted in 1986. Currently, federal coal leasing relies solely on the Lease by Application (LBA) process, which allows industry to request initiation of the leasing process instead of relying on regional lease sales undertaken at the Department's initiative. Director Shea stated that during 1997, BLM issued eight competitive coal leases and received close to \$14.5 million in bonus bids, which are receivable over a five-year period, and that BLM issues five to ten new leases each year. Director Shea highlighted several significant market forces that may affect the demand for Western federal coal: emission standards under Phase II of the Clean Air Act; deregulation of the electric utility markets; global warming concerns; shorter term contract coal sales; competition from other electric generation fuels (primarily natural gas); transportation costs; and implementation



**BLM Director Pat Shea**

of a "futures market" for coal. Director Shea stated that while BLM is working on some minor regulatory adjustments, BLM does not anticipate any sweeping changes in the current federal coal leasing policies. His remarks also addressed coal leasing issues associated with western mining expansion, BLM's review of the 3400 coal regulations, issues associated with Mining in the Grand Staircase-Escalante National Monument (GSENM), and the ALMRS computer system which will link legal land descriptions, geographic coordinates, land and mineral ownership and resource data in a single database to provide a complete picture of current use of the public lands and their availability for future use.

**Bob Armstrong, Assistant Secretary for Land and Minerals Management** provided insight on how the global warming issue can be addressed by the coal industry. He pointed out that a key consideration in the debate, which will begin in Congress this year, is that the President did not propose that America would reduce the production of its fossil fuels as part of this initiative. Indeed, the President recognized that while we must focus on reducing emissions, cutting domestic production of fossil fuels could place this country in a precarious economic and military position. Instead, the



**Bob Armstrong, Assistant Secretary for Land and Minerals**

President focused on improving the technologies and increasing the efficiency with which we use fossil fuels to reduce our atmospheric emissions of carbon.

Mr. Armstrong related the gloom and doom scenario that many “experts” are painting concerning the global warming issue to the same kind of rhetoric that occurred back in 1977 when Congress passed SMCRA. He said: “Many people, some might even have been called experts, sounded the alarm that this law was shortsighted and would be the death knell of the American coal mining industry. Those people had all the facts and half facts they needed to prove this point many times over. But, if we look back we see that in 1977 America produced about 697 million tons of coal. In 1996, almost 20 years after the passage of this law that was supposed to doom the industry, America produced about 1,064 million tons of coal (a 53% increase). Today, America’s coal mining industry is one of the strongest, if not the strongest, in the world. It is an example for the rest of the world to follow. This is difficult for those who knew how horrible the law would be to accept, but it’s true.”

Mr. Armstrong concluded by saying that looking to the future, we must remember that coal is the one fossil fuel with which

this Nation is abundantly endowed. We cannot turn our backs on coal as an energy source. We do not have feasible alternatives. Whether coal fuels America in the future as it does today or as a transformed product, I believe that coal will remain a significant part of this Nation’s energy supply well into the twenty-first century. His challenge to the symposium participants was to ensure that we have the ability to mine the coal America will need in the future safely and in an environmentally sound manner.

**Davitt McAteer, Assistant Secretary for Mine Safety and Health, U.S. Department of Labor**, stated that GPRA was not a new notion and that MSHA was a head of other agencies in terms of GPRA due to the fact



**Davitt McAteer, Asst. Sec. for Mine Safety and Health, DOL**

MSHA goes through a review process each year. Mr. McAteer spoke about the significant achievements

in recent reductions in on-the-job deaths and injuries that have transpired in the coal mining industry. He pointed out that regrettably, this pattern has not occurred on the metals and non-metals side. He spoke of MSHA philosophy being one of ‘shared common interest in improving safety/health in mines’. He discussed the role of technology, and pointed out that sometimes while technology yields improvements, it can also raise heretofore unforeseen new problems. For example, larger, more powerful scrapers can be expected to produce more coal dust which if not

controlled could result in detriments to miners' health. He indicated that there have been significant areas where industry and labor have worked collaboratively to address concerns with minimal government involvement. Mr. McAteer concluded by saying, he believed in the year 2050 we would still be talking about the future of the coal industry despite predictions of the industry's demise.



**OSM Director Kathy Karpan with Labor's Asst. Sec. Davitt McAteer, BLM Director Pat Shea and DOI Asst. Sec. Bob Armstrong**



**EIA's Mary Hutzler gives a comprehensive slide presentation on energy and coal forecasts**

**Core Presentation: "Coal 2000 and Beyond"**

**Mary Hutzler, Director of Integrated Analysis and Forecasting, U.S. Department of Energy** spoke on patterns and trends affecting the future of the coal industry.



The EIA's Annual Energy Outlook 1998 (AEO98) provides detailed forecasts of energy supply, demand, and prices through 2020 that are based on the National Energy Modeling System (NEMS), a large-scale integrated energy model. The projections and a review of the underlying market trends provide a framework for examining a range of coal industry issues to be addressed during the seminar.

The reference case projection calls for the real gross domestic product to grow at 1.9 percent annually and for world oil prices to rise gradually from current levels to \$22.32 per barrel in 2020 in constant 1996 dollars. Natural gas prices at the wellhead grow at a rate of 0.5 percent annually, slightly faster than oil prices. The moderate price growth, coupled with lower capital costs for generating equipment, dramatic gains in generating efficiency, and certain environmental advantages have made natural gas a formidable competitor to coal for use in electric generation. Total natural gas consumption increases at a rate of 1.6 percent annually, with use in electricity generation



growing at a rate of 5.1 percent between 1996 and 2020.

Coal minemouth prices are projected to decline at a rate of 1.4 percent annually to \$13.27 per ton in 2020 in constant 1996 dollars. This decline reflects productivity improvements over the forecast period, as well as a continuing shift to lower priced, low sulfur western coal. In fact, Western coal production surpasses Eastern coal production in 2006. U.S. coal mining productivity has risen steadily since 1978, increasing at an average rate of 6.7 percent per year. The rate of labor productivity improvement is assumed to decline in magnitude, as the rate of further penetration of mining technologies such as longwall units at underground mines and large capacity surface mining equipment gradually levels off. In the AEO98 reference case projections, productivity increases by 2.0 percent a year through 2020. Between 1978 and 1996, employment in the U.S. coal industry declined at the rate of 5.8 percent per year. With improvements in labor productivity continuing through 2020, but at a slower pace, a further decline of 0.9 percent a year in the number of miners is expected.

U.S. coal exports rise in the forecast from 90 million tons in 1996 to 128 million in 2020, as a result of higher demand for steam coal worldwide. U.S. exports of metallurgical coal in 2020 are four million tons lower than the 1996 level.

The future coal market is tightly linked to developments in the electricity market, which accounts for more than 80 percent of coal production. The electricity market is subject to significant uncertainties including the rate of demand growth, electricity market restructuring, nuclear unit retirements, renewable portfolio standards, and limitations on carbon emissions -- each of which could

affect coal production and prices. Electricity sales are expected to grow at a rate of 1.4 percent annually---slower than the economy. Economic growth and electrification are the positive factors for electricity and coal demand, while changes in the industrial output mix and efficiency improvements restrain consumption growth.

Projections in AEO98 also reflect a greater shift to electricity market restructuring. Restructuring is addressed through several changes that are assumed to occur in the industry, including a shorter capital recovery period for capacity expansion decisions and a revised financial structure that features a higher cost of capital as the result of higher competitive risk. Both assumptions tend to favor less capital-intensive generation technologies, such as natural gas, over coal or baseload renewable technologies.

The forecasts include specific restructuring plans in those regions that have announced plans. California, New York, and New England are assumed to begin competitive pricing in 1998. The provisions of the California legislation for stranded cost recovery and price caps are incorporated. In New York and New England, stranded cost recovery is assumed to be phased out by 2008.

As older nuclear plants age and their operating costs rise, more than one-half of currently operating nuclear capacity is expected to retire by 2020, including some early retirements. The reduction in nuclear generating capacity represents a potential market for coal generation.

Renewable technologies can contribute to reducing carbon emissions and offer other environmental advantages. Various legislative proposals have been advanced that will require generators to generate or acquire

credits for renewable energy equal to a fraction of their total sales or generation. Other proposals require a systems benefit charge that will be applied to the development and introduction of renewable technologies, which in many cases are more costly than fossil technologies.

In the AEO reference case, carbon emissions in 2010 are projected to reach approximately 1800 million metric tons. The two largest contributors are the transportation sector and the electric generation sector, with coal generation contributing approximately 30 percent of total emissions. The Kyoto target for the United States that was announced in December 1997 calls for a 7 percent net emission reduction over base year levels for the six greenhouse gases. The reference case does not attempt to anticipate the nature or approval of future legislative initiatives and does not incorporate any specific caps on carbon emissions. However, alternative cases are presented in the AEO that offer insights regarding possible impacts of the various measures that could be adopted to help achieve reductions of carbon emissions. Such measures include renewable portfolio standards, nuclear life extension, and improved more efficient technology.

The Annual Energy Outlook 1998 , related assumptions, and documentation are available on the EIA Home Page (<http://www.eia.doe.gov/oiaf/aeo98/homepage.html>).

## **PANEL PRESENTATIONS: INDUSTRY & STAKEHOLDER PERSPECTIVES**

A panel of Industry and other stakeholders presented their views following Ms. Hutzler's presentation.

**General Richard Lawson, President, National Mining Association** discussed what



**Gen. Richard Lawson, President, National Mining Association**

America requires to meet its energy needs and what coal can do to meet those needs. He stated that electric power is the single not-to-be-dispensed-with ingredient for a strong modern economy. He continued, "America will not require this new power because Americans are wasteful. America will require it because our economy is the engine of the world economy." The General highlighted that new power will be produced as required by the National Energy Policy Act of 1992, which was enacted to uphold America's energy security after the Persian Gulf War. He cited that efficiencies through technology approaching 50 percent are possible in coal generation, continuing the ongoing drive-down of the emissions of current regulatory concern. General Lawson summarized by citing the need for policy makers to focus on balance, incentives and higher efficiency, and the need for flexibility.

Joseph P. Brennan, President, Bituminous Coal Operators' Association provided keen insight based on forty years of experience in the coal industry. He focused on future impacts including an influx of new people,



**Joseph P. Brennan,  
President,  
Bituminous Coal  
Operators'  
Association**

dramatically altering the demographic profile of the industry. He stated that there will be a significant development of new mines to replace those now nearing the end of their useful economic or reserve life. Mr.

Brennan envisioned that the industry will be highly concentrated with relatively few large companies, with smaller entities confined to niche markets or as suppliers to larger employers. He believes that electric utilities will continue to be the major consumers of coal although the dramatic changes taking place in that industry may significantly alter traditional supply-demand patterns. Additional points he made included that technology improvements will dominate both production and utilization, that government will continue to be a central and (for good or ill) major force helping to shape our destiny, particularly in the areas of health and safety of the miners and in coal consumption regulation in the context of global climate change. He concluded by stating that there will be a period of labor stability permitting close cooperation on market and public policy issues especially in the environmental area, and that union-management relationships will be a major positive factor for the period in question.

Jerry Jones, vice-president, United Mine Workers of America was not as optimistic about the future of the coal industry,



**UMWA Vice-  
President Jerry  
Jones**

about the future of the coal industry, coal communities and coal workers in general, chiefly due to the potential negative implications of the global climate change provisions of the Kyoto treaty. He cited existing patterns and trends of increased Western surface mining and decreased mine production in the East, and the dire economic consequences that have impacted mining communities and families. He was not as optimistic about the ability of technology to meet tighter coal burning emissions requirements. As a result, he indicated that UMWA continues to be concerned about a declining work force and coal industry.

James McElfish, Senior Staff Attorney, Environmental Law Institute highlighted three key issues that should be addressed by government and industry.



**ELI's Senior Staff  
Attorney, Jim  
McElfish**

First, acid mine drainage continues to be problematic at active mining operations. Mr. McElfish challenged officials to permit no new mines that would cause acid mine drainage. Second, Mr. McElfish called for investigative study of valley fills constructed over the last 10 - 15 years. He expressed concerns about fill stability and that environmental events stemming from global

climate change could result in much more significant rainfall and flooding that some valley fills cannot handle. He suggested that actions be coordinated with the Federal Emergency Management Agency where funding might be available to help look at these fills. Mr. McElfish's third challenge was for the coal industry to pursue new business opportunities in the environmental restoration business, particularly in economically hard hit areas in Appalachia where coal mining is declining.

Rachel Nava, Member, Powder River Basin Resource Council expressed concerns about



**Rachel Nava of the PRBRC**

adequate bonding requirements, contemporaneous reclamation issues, and hydrological impacts of ongoing and potential new mining in the Nation's largest coal mining area, Wyoming's Powder River Basin. She indicated concern about OSM's oversight program

and whether adequate resources were available to ensure that potential problems were identified and addressed.

Carlos Gore, **Ohio Valley Environmental Coalition** brought to light day-to-day life



**Carlos Gore shows flyrock that landed within feet of his home after a blast from a nearby mine in Blair, WV**

impacts of ongoing mining operations in the Blair, West Virginia area. He held up a piece of flyrock that fell on his property. He also showed slides and part of a video that illustrated some of the negative aspects that people in the mining vicinity have to experience: loud

blasts, compensation for abandoned houses that, in turn, are destroyed. The film and slides shown also depicted some of what he described as aesthetically displeasing views of ongoing mining operations, especially those in pre-reclamation stages.

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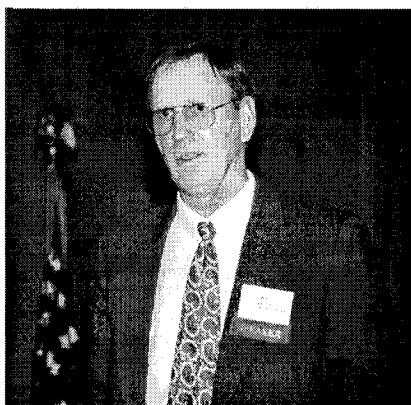
# TECHNOLOGY AND RESEARCH

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## Public Policy Decision Making

The formation of sound public policy requires utilization of the best scientific and technical information available. Recognition of areas, where adequate knowledge or information may be lacking to support key public decisions, is important in to days information technology age.

The panel, chaired by **Brent Wahlquist, OSM's Regional Director, Mid-Continent Regional Coordinating Center** discussed



various aspects of science and technology from research, to information dissemination and use, to the role technical information

can play in public policy decision making as related to the development of the Nation's coal resources.

**Terry Ackman, Clean Water Team Leader, U.S. Department of Energy, Federal Energy Technology Center**, discussed "Acid



Mine Drainage (AMD) and other Research Initiatives at DOE Related to Coal." Research initiatives include: the ILS Treatment System-treats AMD in underground mines, AMD Prediction and Prevention, underground bacterial action studies, Redox gel dipsticks - used to test for metal ions, CCB study - column leaching studies try to better approximate field conditions, and abandoned mine land CCB geophysical investigation (electromagnetic).

**Bruce McKenzie, Cartographer, U.S. Geological Survey**, discussed "The Role of Geographical Information Systems (GIS) and the Importance of Consistent Data in the Information Age. Mr. McKenzie summarized the importance of GIS in the areas of: NSDI - Help in decision making process, National Geospacial Data Information, Federal Geographic Data Committee, and 1994 Presidential order to build GIS structure. He also provided a summary of Geospacial information which included: Metadata - data consistency (How "good" is the data?); mandatory (core) and optional data requirements; Clearinghouse - Z39,50 used for access to the data (originally used by libraries); Inter/Intra net access service; standards - classification and content; and framework - common themes and procedures. Interested parties were encouraged to log ont



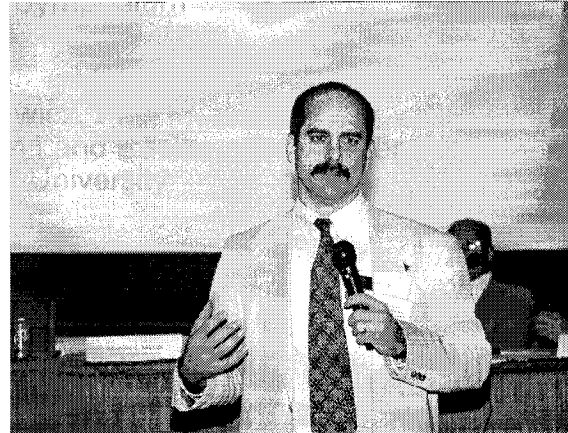
o the Federal Geographic Data Committee (www.fgdc.gov)website for more information.

**Martin J. Miller, General Biologist, Branch of Conservation and Classification, Division of Endangered Species, U.S. Fish and Wildlife Service,** spoke on “The Copperbelly Water Snake Conservation Plan and How it Serves as a Model for Endangered Species Compliance”. Mr. Miller summarized the benefits to cooperators of involvement



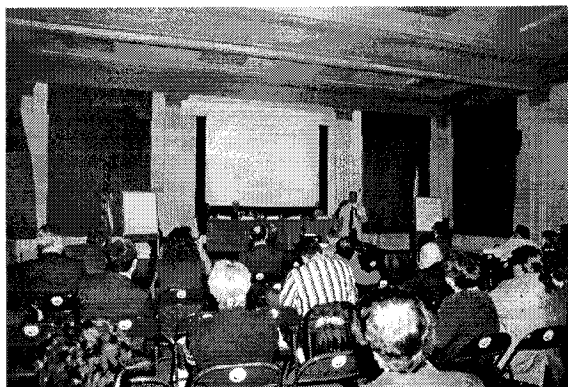
with a conservation agreement: regulator assurances that valid uses can continue uninterrupted; the exact nature of the cooperator’s responsibilities; the responsibilities of the U.S. Fish and Wildlife Service; the important provisions of the Copperbelly Water Snake agreement and how they affect the States of Kentucky, Illinois, and Indiana; and the essential ingredients that must be present to determine the appropriateness for utilizing a conservation agreement rather than listing the species as threatened or endangered.

**Paul Ziemkeiwicz, Director, National Mine Land Reclamation Center, West Virginia University,** talked about “The Role of



Science and University Research in Addressing Issues Related to Acid Mine Drainage (AMD), Stream Loss from Valley Fills, and Subsidence.” The potential impacts of ongoing science and research on surface coal mining policy related to AMD would be improved prediction would result in fewer new AMD sources, effective AMD avoidance through the use of alkaline amendments, and the restoration of watersheds through the use of passive AMD treatment. While the potential impacts of ongoing science and research on surface coal mining policy related to large scale surface disturbances would be improved growth of all types of vegetation, an improved level of geotechnical stability by reducing the incidence of failures, and the optimization of engineering designs through the use of modern computer aided design tools. The potential impacts of ongoing science and research on surface coal mining policy related to subsidence is that an adequate ground control technology already exists but it is not implemented uniformly.

Ziemkeiwicz identified the following research needs related to AMD; more effective and efficient prediction, avoidance, and passive treatment methods that would lower costs and increase reliability, and continue the AMD Technology Initiative. Research needs identified related to subsidence included how to identify the best practices that should be utilized under site specific conditions.



**Lowell Miller, Product-Line Director, Coal Fuels & Industrial Systems, Office of Fossil Energy, U.S. Department of Energy,** discussed “An overview of the Various Kinds of Coal Technology Programs Carried out by DOE.” Lowell summarized U.S. DOE coal research in the areas of: cooperative agreements with industry, electric company efficiency, and the coal liquids program.

Donnelly summarized the OSM training program in terms of technical training classes, the TIPS training, the training needs assessment process, new course development, program evaluation, and the future of the program.

**Sarah Donnelly, Chief, Branch of Technical Training, Office of Surface Mining,** talked about “OSM’s technical and computer Technical Information Processing System (TIPS) training programs. How it is coordinated with the States and other users in terms of needs and evaluation of results. Ms.



**Sarah Donnelly, Ph.D., head of OSM’s National Technical Training Program speaks; Lowell Miller is in the background.**



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## Partnerships In Reclamation

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### “Success Stories Of Partnering”

As Federal agencies face declining resources, it is imperative that agencies join forces to strive for synergy and attempt to achieve resource efficiency in areas of mutual or similar jurisdiction. This session examined some of the past or existing partnerships between Federal agencies and their resulting effectiveness in meeting collective program goals.

The panel, chaired by **Allen Klein, OSM’s Regional Director, Appalachian Regional Coordinating Center**, presented examples of successful partnering among local, state and federal agencies in several overlapping programs. The focus of the presentations was on what has been successful in the partnering efforts and what strategies would lead to more successful partnering in the future.

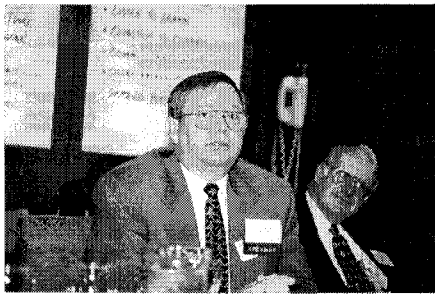


**Bernie Sarnoski, EPA-Region III** and **Harry Payne, Ohio Department of Natural Resources (DNR)**, discussed the effectiveness of partnering with OSM’s Appalachian Clean Streams Initiative (ACSI) and the development of the relationships with the Statement of Mutual Intent. Sarnoski gave a brief history of how the acid mine drainage (AMD) clean-up programs of several different state and Federal agencies began and how they were brought together through the Statement of Mutual Intent. He pointed out that without an agreement as a common vehicle to guide all participants who are involved in AMD clean-up, that close cooperation and coordination would probably not have occurred. Payne opined that prior to the ACSI and the Statement of Mutual Intent, AMD clean-up in Ohio was not a public concern or issue. Since Ohio signed the Statement of Mutual Intent in February 1995, several watershed groups have been started



with the specific objective of cleaning-up AMD and the Ohio DNR has made AMD clean-up a strong component of their program. Both panel members agreed that to keep the partnerships active and moving into the future required continued commitment by the signatories to the Statement of Mutual Intent and an effective strategy of raising funds for seed monies and using those funds to leverage other funds to complete the projects.

**Rodney Woods, The U.S. Army Corps of Engineers, Ohio River Division,** who has



been active in promoting wetlands as a postmining land use after

mining operations have been completed. Woods discussed the problems that the Corps encountered when trying to adopt a nationwide permit for allowing non-mitigation wetlands as an effective postmining land use. The success of the Corps effort was achieved through partnering with OSM so that problems, both on-the-ground and legal, could be addressed prior to any "draft" proposals being circulated among other agencies and the public for comment. By identifying partners and bringing them into the process at a very early stage the Corps was successful in establishing guidelines for an effective program of enhancing the nations wetlands that benefit the environment and the public.

**Gary Hudiberg, EPA and Bob Penn, OSM,** discussed the partnering that is occurring to develop and promote re-mining. The current effort involves partnering with government agencies, the coal industry and the public to design a re-mining program that will provide the necessary incentives for the coal industry to reclaim AML sites that would otherwise not be reclaimed. Both panel members stressed the importance of partnering since no real strategy has ever been developed that addresses this potential solution to reclaiming AML sites before the current partnering effort was undertaken. With the existing effort, the presenters were confident that incentives will

be developed in the very near future that will allow the coal industry to reclaim thousands of acres of AML sites that probably would never be reclaimed.

**Byron Thompson, National Resources Conservation Service,** detailed the partnering efforts among various local, state and federal agencies in successfully undertaking AMD projects throughout the nation. He indicated that the local watershed groups were willing to do whatever it takes to clean-up their watersheds from AMD and other mining related impacts through working together. The advent of the partnerships created through the ACSI and the Statement of Mutual Intent has accelerated their efforts in obtaining technical and monetary support for their projects. He believes that continued success of the partnering effort will depend on the ability of involved agencies to deal directly with local leaders and to offer support when requested by the local groups.

Klein summarized the panel discussion by indicating that programs that were non-existent a few short years ago, are now dynamic and effective programs that are dealing with problems that the public faces everyday. Problems are being addressed through various national, regional and local partnerships that give the public hope that through combined efforts, problems such as AMD can be cleaned-up.





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# Outreach Mechanisms to Facilitate Public Participation

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## Methods/Approaches Used to Seek Public Participation

How do you use feedback provided by the public in the decision-making process? What are the efficiencies gained by allowing for public participation early in the process? How does this impact the resources required for policy development and implementation? How do you evaluate the costs/benefits of these activities? How do you carry out these efforts with limited resources?

The panel, chaired by **Mary Josie Blanchard**, **OSM's Assistant Director for Program Support**, discussed several methods/approaches used to seek public participation early in the process for activities such as rulemaking, permitting and issue resolution. Involving the public early in the process provides an opportunity for everyone's input and allows divergent views to be discussed and considered prior to making final decisions.



**Deborah Dalton**, **Deputy Director of Consensus and Dispute Resolution Programs at the Environmental Protection Agency (EPA)**, discussed a brief history of cultural change at EPA, one that has gone from confrontation to its present state of collaboration. EPA uses a spectrum of decision-making and public participation processes. This includes processes where decisions are made by a vested power alone, and therefore public input or involvement is absent, to decisions made by stakeholders with stakeholder negotiations leading to implementable decisions. Processes that include more public involvement, such as negotiated rulemaking, have proven to be successful at EPA and lead to reduced litigation of those rules promulgated using this process.





**Francis X. (Chip) Cameron, Special Counsel for Public Liaison at the Nuclear Regulatory Commission (NRC)**, discussed the NRC's commitment to increase the nature and scope of public involvement in its regulatory activities. This has included early public involvement in the development of significant generic decisions on rulemaking and policies; development of a network of contacts representing the broad spectrum of interests affected by NRC decisions; early, informal (non-adjudicatory), and continuous public involvement in site specific licensing decisions; and wider and easier (electronic access) public availability of agency documents. One of the many new approaches being undertaken at NRC is an experimental approach called RuleNet. The concept underlying RuleNet is that computer-based communications technology makes it possible for participants in an NRC proceeding to communicate both with the NRC and among themselves, with a view toward defining issues, eliminating misunderstanding, and finding areas of common ground.



**Jack McGriffin, Executive Assistant at the Indiana Department of Natural Resources**, discussed the implementation of the federal Surface Coal Mining and Reclamation Act. The Indiana Division of Reclamation has struggled to provide a complete and competent program which meets the needs and expectations of its many different stakeholders. It has become re-energized and is rebounding from the doubt and cynicism so prominent through the 1970's and 80's. Through the collective implementation of the principles of quality customer service, strategic planning, meeting facilitation, personal growth and leadership and the concepts of Reinventing Government, the Indiana Division of Reclamation is now "Leading a Change in Indiana Government". McGriffin explained how the Division of Reclamation has approached this change, what successes have already been realized and what work is yet to be done.

**Patrick McGinley, Professor of Law at the West Virginia University** described his



experiences in dealing with citizens and regulatory agencies on permitting issues. Access to information, and the understanding of the information, such as permits, maps, and technical instruments, are problems for citizens. Citizens need help in understanding the documents under consideration by the permitting authorities before the permits are issued. To actively reach out to the public requires commitment and making the commitment a priority.

**Cecelia Mason, reporter for the West Virginia National Public Radio,** provided insight on ways to get publicity for events.



announcements (PSAs) need to be written in “plain language”, short and to the point, stating only the basic facts. Mason also explained the need to find “real people” for reporters to talk to about the program, in addition to a program official. Several ways are available on local radio stations. These include public service announcements, local news, public affairs shows, and talk shows. Public service

Blanchard concluded the panel session by commenting on ways in which OSM was approaching outreach in various program areas. OSM’s recent efforts on rulemaking activities, OSM/State working groups, sharing of general and programmatic information on the Internet, and educating policy to prevent future problems.



In summary, the panel recognized the need to provide better service to the public and share information early in the decision-making processes. The approaches and methods discussed will be reviewed for future use in OSM activities, as will the recommendations for improvement in this area.

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# Patterns and Trends In Inspection, Enforcement and Permitting

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## Interagency Cooperation to Ensure Compliance

There are many processes related to a coal mining operation, including initial leasing, permitting, inspection, enforcement, oversight and reclamation. This panel focused on how various Federal agencies coordinate and cooperate with each other and others in these efforts to ensure compliance with various Federal mandates, as well as the patterns and trends evolving in these activities. The focus of this panel was to illustrate and assess how federal agencies, in a cooperative effort, are best planning to meet future needs; are best redirecting their scarce resources in coordination with others to accomplish their missions; and are exploring new ways of doing business, such as through partnerships and information exchange.

**Rick Seibel, OSM Regional Director, Western Regional Coordinating Center** chaired this



panel, bringing together Federal agencies which have many cross-cutting issues in the inspection, enforcement and permitting program areas. He noted that the future trends will be directly related to the presentation made earlier in the day by Mary Hutzler, who presented some outstanding data relative to Coal 2000 and Beyond. All Federal agencies need to strategically plan how they, in a cooperative manner, need to respond to future coal production. The production shift is from East to West; what additional environmental challenges does this present; what are the transportation

scenarios; how may all of this impact global warming - these are some of the questions we heard in the morning session which we hoped to address in some manner in this panel.

**Steve Sheffield, Chief, Division of Technology Support, OSM** said many agencies have been criticized for lack of strategic planning and interagency coordination under the Government Performance and Results Act (GPRA), and that the conference had brought together many of the governmental units responsible for coal. Steve discussed OSM's Applicant Violator System (AVS), which the agency uses to track mining company violations. He acknowledged that



the AVS has been a very effective tool under the Surface Mining Control and Reclamation Act (SMCRA) to detect "bad operators" and deny them permits. In an example of interagency cooperation, OSM is working with EPA to obtain information on operators with violations of the Clean Water Act (CWA), in order to load that information into the AVS system, as Steve noted that, under SMCRA, miners with clean water violations cannot receive permits. The benefits of interagency cooperation are measurable under GPRA, such as tallying how many blocked permits are related to CWA violations.

**Al Davis, Chief, Safety Division, MSHA and Kelvin Wu, Chief, Safety Division, MSHA**



discussed coordination between SMCRA and MSHA violations. Of particular interest here was a concept used by MSHA called 'ombudsman'. This is where a facilities regularly assigned inspector will periodically visit a site, not so much as an inspector, but as a technical observer or facilitator to identify areas that need improvement. The goal is to focus on what is needed to obtain and assure compliance with the provisions of the law. Also discussed was the coordination between the various Federal agencies in the program area of dam safety.

**Bernie Sarnoski** of the Environmental Protection Agency (EPA) discussed the acid

mine drainage (AMD) program of EPA and the interaction of SMCRA and the Clean Water Act. Bernie touched upon the breadth of the AMD problem and how agencies working together and leveraging of funds are beginning to show positive results on the ground.

Lastly, there was a mini-panel discussion on the GPRA requirement to consider cross-cutting programs, such as those mandated under SMCRA as they relate to leasing, permitting, and inspection and enforcement activities on Indian Lands. Members of this panel included **Gordon Cheniae, Field Director for Native American Minerals, Bureau of Land Management (BLM); Bill Clark, Manager, Federal and Indian Lands Program, OSM; and Genni Denetsone, Acting Assistant Navajo Area Director, Bureau of Indian Affairs (BIA).** They



discussed the coordination principles included in a Memorandum of Understanding between the BLM, OSM, and BIA on the management of coal mining on Indian Lands. This recognizes the government-to-government relationship between agencies and tribes. Many examples of consultation and cooperation will be presented. Of particular importance and emphasis was the fact



that the Federal agencies accomplish their work under the framework of the federal trust responsibility to Indian tribes and allottees.

This panel provided an opportunity and a reminder that Federal agencies and especially regulators must work together and share their vision and strategic plans to focus on clearly what they are trying to accomplish, and why it matters. Future discussions should be enhanced by the “seeds” that were planted at this symposium.

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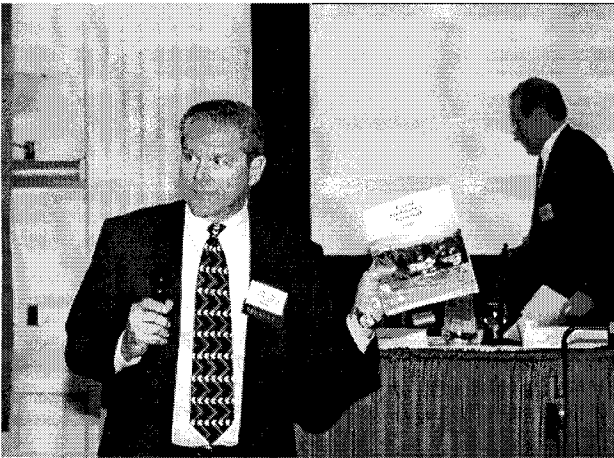
# Federal Coal Information Management

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## The What, How, And Why of Data Collected From Industry

It is generally known that a variety of Federal agencies collect information, and in some cases, revenue, from the United States coal industry. What is often little known, however, are the unique legislative requirements and underlying needs that originally gave rise to these information gathering efforts. The Coal Symposium provided a forum where the major in's and out's of the coal industry reporting requirements to the Federal government were described and discussed.

**Bob Ewing, OSM Assistant Director for Finance and Administration**, chaired this panel, bringing together Federal agencies which



collect information directly from the coal industry on a recurring basis, and providing a forum for them to discuss all aspects of their programs, including: the legislation/regulatory background, forms, frequency, responsiveness rates, analyses, publications, disclosure restrictions, customers, and any changes under consideration. As Ewing noted, there is also another tier of related information that is either (1) collected from the industry on a non-recurring basis, or (2) developed by various agencies in executing their legislative mandates, which was beyond the scope of this panel.

**May Paull, Acting Chief of the Energy Information Administration's (EIA) Coal**



Data Systems Branch, spoke about EIA's activities in collecting information from both coal producers and users. EIA conducts this work under three different pieces of legislation, and regularly produces reports on coal supplies, distribution, and consumption for use by a variety of government and non-government customers. The myriad of information provided by EIA is used to analyze and forecast the nation's coal and related energy requirements for the foreseeable future. Results of EIA's data is used worldwide for projecting the energy's supply and demand. This data was used by Mary Hutzler of EIA during the plenary session in addressing the topic: "Coal 2000 and Beyond

**George Fesak, Mine Safety and Health**



**Administration**, addressed the various Department of Labor organizations' work in collecting information from the coal industry. These include: MSHA, which collects mine accident, injury, and illness information; the Bureau of Labor Statistics, which is required to collect statistics on labor conditions and the products and distribution of products they produce; and the Employment Standards Administration, which collects information on coal workers' pension claims, employment, and self-insured companies. Information provided by George was highlighted by J. Davitt McAteer, Assistant secretary for Mine, Safety and Health, Department of Labor, in addressing the topic : "Working Together As We Plan the Future."

**Stan Kuny, Agent-Excise Tax Specialist,**



**Internal Revenue Service**, discussed the IRS'

collection of coal excise taxes and the attendant information. The IRS collects the tax returns quarterly, but the tax payments are due semimonthly. The tax code carries tight restrictions on the disclosure of all taxpayer information that is gathered. Over the years, OSM has worked closely with the IRS in sharing information, since both fees and coal taxes are usually assessed on the same tonnage

**John Hovanec, Chief, Solid Minerals Reporting, Royalty Valuation Division, Minerals Management Service**, provided an overview of MMS' collection of royalties from coal mined on Federal and Tribal lands. Interior's Bureau of Land Management authorizes the mining leases, and MMS accounts for all production and royalties, and provides reports to BLM, Bureau of Indian Affairs, Tribes, and States. MMS also verifies compliance with the lease financial terms. The collection of royalties has a slightly different twist than the collection of fees and taxes by OSM and IRS as royalties are collected based on coal valuation rather than per tonnage amounts.



**Dennis Dechmerowski, Collections Team Accountant and Jim Krawchyk, Chief, Division of Compliance Management, OSM** were the final speakers, and discussed OSM's collection of abandoned

mine reclamation fees and related information, and a planned study on the use of electronic data interchange for operators to file their quarterly reports. The per ton fees are assessed on all U.S. coal mine operators, and are used in Federal, State, and Tribal abandoned mine land reclamation efforts. Virtually all of the information collected is required by law, and is used by OSM in its audit and related activities to ensure full compliance with the fee provisions.

This panel marked the first time all of the agencies involved were brought together to explain the various aspects of their information gathering efforts. The session provided a good foundation for continuing the dialog and exploring opportunities for making the collection of information more efficient and less burdensome on the industry. For example, the EIA and MSHA reported some progress they have made in sharing information and reducing their overall data collection operations. The concept of streamlining Federal coal data collection programs is not new, but continues to be worth pursuing. Future discussions among the interested agencies will allow this issue to be further examined.

# SYMPOSIUM DIRECTORY

ORGANIZATION	LAST	FIRST	CITY	STATE
A Capital Resource	Paty	Alma	Washington	DC
American Coal Foundation	Horning	Mary	Washington	DC
Army Corps of Engineers	Woods	Rodney	Cincinnati	OH
Anker Energy Corporation	Rotruck	Scott	Morgantown	WV
Associated Press	Jesdan	Anick	Washington	DC
Association of American Railroads	Rockey	Craig	Washington	DC
Association of American Railroads	Stone	Cyndi	Washington	DC
Babcock & Wilcox	Pilland	Bud	Arlington	VA
BIA	Aubertin	Don	Lakewood	CO
BIA	Denetstone	Genevieve	Gallup	NM
BIA	Slagle	Edward	Washington	DC
Bituminous Coal Operators' Association	Lamonica	Joseph	Washington	DC
Bituminous Coal Operators' Association	Brennan	Joseph	Washington	DC
BLM	Aird	Brenda	Washington	DC
BLM	Allard	Philip	Washington	DC
BLM	Boyd	Pat	Washington	DC
BLM	Broderick	John	Washington	DC
BLM	Bunler	Don	Washington	DC
BLM	Cheniae	Gordon	Phoenix	AZ
BLM	Chiang	Sie Ling	Washington	DC
BLM	Dahl	Bob	Washington	DC
BLM	Gamby	Janice	Washington	DC
BLM	Moritz	Harry	Springfield	VA



# SYMPOSIUM DIRECTORY

ORGANIZATION	LAST	FIRST	CITY	STATE
BLM	Radden-Lesage	William	Washington	DC
BLM	Shea	Pat	Washington	DC
BLM	Ziehl	Donal	Washington	DC
Bradson Corporation	Bradley	Donald	Arlington	VA
Bradson Corporation	O'Lenick	Frank	Arlington	VA
Casper Star Tribune	Tollefson	Chris	Washington	DC
Charleston Daily Mail	Myers	Steve	Charleston	WV
Citizens Coal Council	Kochensparger	Jane	Washington	DC
Coal Age	Dizard	Wilson	Washington	DC
Coal Transportation Report	Caplan	Abby	Washington	DC
Coal Week	Hickey	Kathleen	Washington	DC
CONSOL Inc.	Slagel	Gary	Pittsburgh	PA
Crow Tribe	Small	Henry	Crow Agency	MT
Derado Group	Hunter	Dennis	Manassas	VA
DOA	Greeley	Mike	Washington	DC
DOE	Ackman	Terry	Pittsburgh	PA
DOE	Bowles	Michelle	Washington	DC
DOE	Meador	Steve	Morgantown	WV
DOE	Miller	Lowell	Germantown	MD
DOI	Armstrong	Bob	Washington	DC
DOI	Balsarak	Paul	Washington	DC
DOI	Bieniewicz	Don	Washington	DC
DOI	Brovard	Tom	Washington	DC
DOI	deWitt	Piet	Washington	DC
DOI	Finfer	Lawrence	Washington	DC

# SYMPOSIUM DIRECTORY

ORGANIZATION	LAST	FIRST	CITY	STATE
DOI	Gordon	Bill	Washington	DC
DOI	Henry	Kay	Washington	DC
DOI	Kaas	Michael	Washington	DC
DOI	Kilduff	Daniel	Washington	DC
DOI	Kusek	Jody	Washington	DC
DOI	Mahoney	Jerry	Washington	DC
DOI	Moy	Judy	Washington	DC
DOI	Smathers	John	Washington	DC
DOI	Triebisch	George	Washington	DC
DOI	Veltkamp	Robert	Washington	DC
DOI	Warner	Chris	Vienna	VA
DOI	Wiseman	Maria	Washington	DC
DOL	Breeskin	Steven	Washington	DC
DynCorp/SCC	Field	Tom	Alexandria	VA
EIA	Flynn	Edward	Washington	DC
EIA	Freme	Fred	Washington	DC
EIA	Hutzler	Mary	Washington	DC
EIA	Mellish	Mike	Washington	DC
EIA	Paull	Mary	Washington	DC
EIA	Sitzer	Scott	Washington	DC
Environmental Law Institute	McElfish	Jim	Washington	DC
EPA	Allen	Ashley	Washington	DC
EPA	Boyer	Mary Ann	Washington	DC
EPA	Charlton	Thomas	Washington	DC
EPA	Dalton	Deborah	Washington	DC

# SYMPOSIUM DIRECTORY

ORGANIZATION	LAST	FIRST	CITY	STATE
EPA	Drabkowski	Ed	Washington	DC
EPA	Hudiberg	Gary	Washington	DC
EPA	Kramer	Kim	Washington	DC
EPA	Piotrowski	Joe	Philadelphia	PA
EPA	Sarnoski	Bernie	Philadelphia	PA
EPA	Suriano	Elaine	Washington	DC
EPA	Weese	Daniel	Washington	DC
Fish & Wildlife Service	Bowen	Diane	Arlington	VA
Fish & Wildlife Service	Kelsey	Linda	Washington	DC
Fish & Wildlife Service	Miller	Martin	Washington	DC
Goodyear Tire and Rubber Co.	Crane	Jeffrey	Marysville	OH
Great Plains/Rocky Mt. Hazardous Substance Research Ctr.	Erickson	Larry	Manhattan	KS
Indiana Dept. of Natural Resources	McGriffin	Jack	Indianapolis	IN
Internal Revenue Service	Kuny	Stan	Pittsburgh	PA
Interstate Mining Compact Commission	Conrad	Greg	Herndon	VA
Interwest Mining Company	Webster	Blake	Salt Lake City	UT
J. Steven Griles & Assoc.	Griles	Steve	Washington	DC
Kennecott/Borax	Steinbeck	Alan	Washington	DC
Kerr McGee Coal Corp.	Burdick	Clem	Okla City	OK
Kerr McGee Coal Corp.	Coleman	John	Okla City	OK
MAPCO Coal, Inc.	Thomas	David	Oakland	MD
Maryland Coal Association	Ottaviani	Adrienne	Frostburg	MD
Mine Regulatory Reporter	Beale	Latanya	Arlington	VA

# SYMPOSIUM DIRECTORY

ORGANIZATION	LAST	FIRST	CITY	STATE
MSHA	Davis	Al	Arlington	VA
MSHA	Fesak	George	Arlington	VA
MSHA	Gates	Richard	Arlington	VA
MSHA	Lyons	Jeri	Arlington	VA
MSHA	McAteer	Davitt	Arlington	VA
MSHA	Whiteman	Lily	Arlington	VA
MSHA	Wu	Kelvin	Pittsburgh	PA
MMS	Clark	Platte	Washington	DC
MMS	Corley	Harold	Washington	DC
MMS	Gillon, Jr.	John	Washington	DC
MMS	Hager	Eric	Washington	DC
MMS	Hovanec	John	Lakewood	CO
MMS	Lauterbach	Joann	Washington	DC
MMS	Martinez	Richard	Washington	DC
MMS	Wincentzen	Herb	Denver	CO
MSES Consultants	Muncey	Sam	Clarksburg	WV
Nalco Chemical Co.	Bushman	Micheal	Naperville	IL
National Coal Council	Raubeson	Pam		
National Mine Land Reclamation Council	Ziemkiewicz	Paul	Morgantown	WV
National Mining Association	Bradshaw	Jacquelyn	Washington	DC
National Mining Association	Feldman	Paula	Washington	DC
National Mining Association	Frisby	Brad	Washington	DC
National Mining Association	Lawson	Richard	Washington	DC
National Mining Association	Moore	Martha	Washington	DC

# SYMPOSIUM DIRECTORY

ORGANIZATION	LAST	FIRST	CITY	STATE
Natural Resources Conservation Service	Smith	Dan	Washington	DC
Natural Resources Conservation Service	Thompson	Byron	Columbia	SC
Navajo Nation	Das	Ram	Window Rock	AZ
Navajo Nation	Zaman	Akhtar	Window Rock	AZ
Nuclear Regulatory Commission	Cameron	Chip	Washington	DC
Office of Inspector General - Interior	Fedak	Andy	Washington	DC
Ohio Dept. of Natural Resources	Payne	Harry	Columbus	OH
Ohio Valley Environmental Coalition	Bragg	Patricia	Huntington	WV
Ohio Valley Environmental Coalition	Forman	Laura	Huntington	WV
Ohio Valley Environmental Coalition	Fout	Janet	Huntington	WV
Ohio Valley Environmental Coalition	Gibson	Larry	Huntington	WV
Ohio Valley Environmental Coalition	Gore	Carlos	Kenova	WV
Ohio Valley Environmental Coalition	Hayden	Susan	Huntington	WV
Ohio Valley Environmental Coalition	Kash	Dan	Huntington	WV
Ohio Valley Environmental Coalition	Rebert	Suzanne	Huntington	WV
Ohio Valley Environmental Coalition	Simpkins	Freda	Huntington	WV

# SYMPOSIUM DIRECTORY

ORGANIZATION	LAST	FIRST	CITY	STATE
Ohio Valley Environmental Coalition	Sprouse	Randy	Huntington	WV
OSM	Adams	Betty	Washington	DC
OSM	Ahrens	Malcolm	Alton	IL
OSM	Allard	Philip	Washington	DC
OSM	Alsop	Adrienne	Washington	DC
OSM	Austin	Henry	Denver	CO
OSM	Bae	Sam	Washington	DC
OSM	Bagranoff	Larry	Washington	DC
OSM	Baka	Nancy	Washington	DC
OSM	Blanchard	Mary Josie	Washington	DC
OSM	Block	Fred	Washington	DC
OSM	Boyce	Scott	Washington	DC
OSM	Bowerman	Barbara	Denver	CO
OSM	Broderick	Nancy	Washington	DC
OSM	Browne	Thomas	Washington	DC
OSM	Bryson	Richard	Washington	DC
OSM	Carter	Clara	Washington	DC
OSM	Carvajal	Robert	Washington	DC
OSM	Chadwick	Barbara	Washington	DC
OSM	Childress	Jerry	Washington	DC
OSM	Christiansen	Victor	Washington	DC
OSM	Clark	Bill	Denver	CO
OSM	Cole	Alan	Washington	DC
OSM	Coleman-Quinn	Marie	Washington	DC



# SYMPOSIUM DIRECTORY

ORGANIZATION	LAST	FIRST	CITY	STATE
OSM	Cossey	Shirley	Washington	DC
OSM	Cotting	Rodger	Washington	DC
OSM	Craynon	John	Washington	DC
OSM	Davis	Vermell	Washington	DC
OSM	Dawson	Hazel	Washington	DC
OSM	Dechmerowski	Dennis	Denver	CO
OSM	Dieringer	Tim	Pittsburgh	PA
OSM	Donnelly	Sarah	Washington	DC
OSM	Downs	Kathleen	Washington	DC
OSM	Ewing	Robert	Washington	DC
OSM	Farnella	Jerry	Pittsburgh	PA
OSM	Frey	Larry	Washington	DC
OSM	Fye	Bruce	Washington	DC
OSM	Gainer	Willis	Albuquerque	NM
OSM	Galetovic	Joe	Denver	CO
OSM	Gamby	Janice	Washington	DC
OSM	Garris	Renata	Washington	DC
OSM	Gibson	Larry	Huntington	WV
OSM	Gluskoter	Hal	Washington	DC
OSM	Gray	Jane	Lexington	KY
OSM	Gray	Jim	Washington	DC
OSM	Greer	Vance	Washington	DC
OSM	Guest	Karen	Washington	DC
OSM	Heintz	Theodore	Washington	DC
OSM	Henry	Kay	Washington	DC



# SYMPOSIUM DIRECTORY

ORGANIZATION	LAST	FIRST	CITY	STATE
OSM	Herring	Angela	Washington	DC
OSM	Hess	Norman	Washington	DC
OSM	Hong	Inhi	Washington	DC
OSM	Hudak	Susie	Washington	DC
OSM	Hunt	Roger	Washington	DC
OSM	Jacquot	Neal	Casper	WY
OSM	Johnson	Angela	Washington	DC
OSM	Johnston	Jackie	Washington	DC
OSM	Joiner	James	Washington	DC
OSM	Karpan	Kathy	Washington	DC
OSM	Kelsey	Linda	Washington	DC
OSM	Kennedy	James	Washington	DC
OSM	King	Cynthia	Washington	DC
OSM	King	Marty	Washington	DC
OSM	Kirk	Keith	Washington	DC
OSM	Klein	Allen	Pittsburgh	PA
OSM	Kohli	Ruchi	Washington	DC
OSM	Kovacic	William	Lexington	KY
OSM	Kowal	Dave	Washington	DC
OSM	Kramer	Kim	Washington	DC
OSM	Krawchyk	Jim	Pittsburgh	PA
OSM	Krueger	Gene	Washington	DC
OSM	Leisz	Nadine	Washington	DC
OSM	Mahoney	Jerry	Washington	DC
OSM	McCauley	Linda	Washington	DC

# SYMPOSIUM DIRECTORY

ORGANIZATION	LAST	FIRST	CITY	STATE
OSM	McEntegart	Steve	Washington	DC
OSM	McMahon	Sean	Washington	DC
OSM	Meierling	Alzira	Washington	DC
OSM	Mellish	Mike	Washington	DC
OSM	Meyers	Chuck	Washington	DC
OSM	Miller	Richard	Washington	DC
OSM	Mitchell	Maria	Washington	DC
OSM	Neely	Cindy	Washington	DC
OSM	O'Toole	Kathryn	Washington	DC
OSM	Overton	Lynne	Washington	DC
OSM	Owens	Glenda	Washington	DC
OSM	Penn	Bob	Big Stone Gap	VA
OSM	Peterson	Jennifer	Washington	DC
OSM	Phelps	Nancy	Washington	DC
OSM	Polach	Micheal	Washington	DC
OSM	Ramey	Barbara	Washington	DC
OSM	Recker	Ron	Pittsburgh	PA
OSM	Reeves	Myrtle	Washington	DC
OSM	Reff	David	Washington	DC
OSM	Rice	Dennis	Washington	DC
OSM	Robinson	Micheal	Pittsburgh	PA
OSM	Russell	Barbara	Washington	DC
OSM	Seibel	Richard	Denver	CO
OSM	Sheffield	Steve	Washington	DC
OSM	Singleton	Beverly	Lebanon	VA

# SYMPOSIUM DIRECTORY

ORGANIZATION	LAST	FIRST	CITY	STATE
OSM	Smith	Jan	Washington	DC
OSM	Smith	Jennifer	London	KY
OSM	Smith	Nancy	Washington	DC
OSM	Staller	Paul	Washington	DC
OSM	Stieber	Jane	Washington	DC
OSM	Stokes	Ruth	Washington	DC
OSM	Stone	George	Washington	DC
OSM	Strand	Howard	Denver	CO
OSM	Stream	Leslie	Washington	DC
OSM	Taitt	James	Pittsburg	PA
OSM	Thompson	Towanna	Washington	DC
OSM	Thrower	Anthony	Washington	DC
OSM	Trelease	John	Washington	DC
OSM	Vories	Kimberly	Alton	IL
OSM	Wahlquist	Brent	Alton	IL
OSM	Walker	Ann	Washington	DC
OSM	Warren	Ann	Washington	DC
OSM	Webster	Delores	Washington	DC
OSM	Welsh	Robert	Washington	DC
OSM	White	Margy	Washington	DC
OSM	Williams	Larry	Washington	DC
OSM	Wink	Douglas	Washington	DC
OSM	Wood	Diane	Washington	DC
Pennsylvania Anthracite Council	Feagley	Duane	Harrisburg	PA

# SYMPOSIUM DIRECTORY

ORGANIZATION	LAST	FIRST	CITY	STATE
Pennsylvania Coal Association	Ellis	George	Harrisburg	VA
Pennsylvania Coal Association	Sharp	Lora	Harrisburg	VA
Powder River Basin Resource Council	Nava	Rachel	Douglas	WY
Rocky Mt. Hazardous Substance Research Ctr.	Erickson	Larry	Manhattan	
R. Duffy Wall & Assoc.	Payne	John	Washington	DC
Southern California Edison	Anderson	Malcolm	Burbank	CA
Texas Utilities	Trimble	Rob	Dallas	TX
Texas Utilities	White	Dick	Dallas	TX
The Hopi Tribe	Honie	Norman	Kykotsmovi	AZ
The LEAD Alliance	Warner	Susan	Annandale	VA
United Mine Workers of Amer.	Fritz	Gary	Washington	DC
United Mine Workers of Amer.	Jones	Jerry	Washington	DC
United Mine Workers of Amer.	Leary	Kristian	Washington	DC
United Mine Workers of Amer.	Main	Joe	Washington	DC
U.S. Geological Survey	Case	Lee	Reston	VA
U.S. Geological Survey	Cater	Devereux	Reston	VA
U.S. Geological Survey	Gluskoter	Hal	Washington	DC
U.S. Geological Survey	McKenzie	Bruce	Washington	DC
U.S. Geological Survey	Milici	Robert	Reston	VA
U.S. Geological Survey	Ruppert	Jingle	Reston	VA
U.S. Geological Survey	Stanton	Ron	Reston	VA

# SYMPOSIUM DIRECTORY

ORGANIZATION	LAST	FIRST	CITY	STATE
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Virginia Dept. of Mines, Minerals & Energy	Abbott	Micheal	Big Stone Gap	VA
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West Virginia University - Law	McGinley	Patrick	Washington	DC
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West Virginia Geological Survey	Johnson	Bob	Morgantown	WV
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West Virginia Public Radio	Mason	Cecelia	Shepardstown	WV
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Western Regional Council	Dau Fisher	Fernanda	Washington	DC
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Wyoming Dept. of Environmental Quality	Chancellor	Richard	Cheyenne	WY
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