

Project Summary

Primary Category: Exploring the relationship between innovative environmental management systems and permitting (Team Proposal)

Title: **Permitting Process Improvement in the Mining Industry through Public Engagement and Environmental Management Planning - A Demonstration with Multi-State and Multi-Region Applicability**

Location: Frankfort, Kentucky and Charleston, West Virginia

Applicant: The Kentucky Department for Environmental Protection (DUNS # 927324749)

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Statement: This project is not specifically focused on hazardous waste management or permitting under RCRA nor is it being executed with or funded by any other federal or EPA program.

Federal Regulatory Flexibility Requirements: There will be no specific need for regulatory flexibility in the development and implementation of this innovation in permitting and environmental management planning.

Endorsement: This project is endorsed by the Commissioners of the Kentucky Department for Environmental Protection and the Kentucky Department for Natural Resources and by the Cabinet Secretary and Assistant Cabinet Secretary of the West Virginia Department of Environmental Protection.

Project Introduction

The Kentucky Department for Environmental Protection (KDEP), the Kentucky Department for Natural Resources (KDNR), and the West Virginia Department of Environmental Protection (WVDEP) will work as a team to develop and implement an innovative approach to environmental permitting and environmental management planning focused on the mining industry. The coal mining industry, critical to the economic health of both states, is experiencing tremendous growth as a result of energy constraints in other non-renewable resources. Coal currently supplies approximately 56% of all electrical power in the United States and over 95% of electrical power in Kentucky and in West Virginia. Coal will continue to be a vital source of energy for our country and will help to meet electrical demands even as alternative sources of energy are explored and developed in the future.

Rising energy demands and rapid industry growth has forced increased mining activity nearer to existing communities and has elevated tension between companies and the communities where they are located. General guidance in improving public involvement and in industrial environmental management planning exists, but little has been directly applied to the mining industry. In current culture, the permitting process for mining activities provides opportunities for public input (public notice) but typically little public input is received prior to permit issuance. The result is many citizen concerns are handled as complaints after permit issuance by agency enforcement personnel. Communities that are dependent on the mining industry for their economic well-being also bear the environmental risks and health impacts that can occur. Coal mining is a highly regulated industry with frequent on-site inspections and prescribed methods for managing on site environmental issues such as blasting, drainage, and re-vegetation. However, the use of environmental management systems (EMS's), the continual cycle of planning, implementing, reviewing, and improving used in other business models to continually improve results, is not typically a formal part of management strategy in most mining companies. Many mining companies make positive civic contributions to their communities, but this behavior is not recognized by affected citizens as adequate compensation for mining-related impacts they experience personally. Mining industry staff is typically lean and focused on business demands so investment in community involvement and communication is not a priority. The combined impact of rapid growth, limited public involvement in permitting, and missed opportunities for environmental improvement through the application of EMS strategies contributes to conflict and decreased efficiencies for communities, companies, and agencies involved in the mining industry.

This project will improve relationships between citizens and mining companies, enhance communication between groups, and improve the planning and implementation processes associated with mining activity impacts on communities. In addition, this project will provide opportunities to streamline some permitting processes particularly in Kentucky where the integration of 404, SMCRA, and KPDES permits is being explored by state and federal mining and environmental agencies. This project is strategically positioned to benefit from standard methodology (i.e. EMS guidance, EPA Public Involvement processes, etc.) that can be customized and applied to mining industry issues to produce quantifiable results that go well beyond what could be achieved through traditional approaches. Although the project will initially focus on the mining sector in Appalachian regions 3 and 4, it is envisioned that these methods can be

nationally expanded for use by any mining or mineral extraction operation. Long term objectives of this project include:

- Increased public involvement and community engagement during coal industry development of mine permit applications and after permit issuance
- Improved permitting efficiency for industry
- Increased use of applicable EMS planning models by the mining industry
- Enhanced environmental/public protection through voluntary use of collaborative planning, best management practices, and enhanced reclamation
- On-going networking opportunities where mining industry best practices can be shared and improved and environmental stewardship can be promoted
- Opportunities for information sharing, technology transfer, and improved regional results between states/regions with common mining industry issues

This project directly supports a number of EPA's Strategic Goals as well as several Cross-Goal Strategies. Specifically, the project aligns with Goal 4: *Healthy Communities and Ecosystems* by encouraging increased public involvement in early planning for mining projects and using integrated and comprehensive approaches and partnerships between communities, mining companies, and permitting agencies. This project also supports Goal 5: *Compliance and Environmental Stewardship* through the encouragement of voluntary actions to reduce pollution and promote environmental stewardship behaviors. Objective 5.2 *Improve Environmental Performance Through Pollution Prevention and Innovation* and sub-objectives 5.2.2 and 5.2.3 are clearly supported because the project will focus on voluntary pollution prevention to supplement traditional enforcement to reduce pollution and improve environmental stewardship practices in business operations as well as achieve measurably improved environmental performance through sector based approaches. In addition, the program supports Goal 2: *Clean and Safe Water*, by encouraging pollution prevention practices, reducing water pollution risks, reducing exposure to contaminants, and protecting overall water quality. Opportunities for streamlining permitting processes such as 404, SMCRA, and KPDES will focus resources to align water quality protection programs. The project also will enhance Goal 3: *Land Preservation and Restoration* by encouraging the completion of voluntary activities that specifically improve the community's lands through cooperative efforts and reclamation and that reduce environmental risk. Cross-Goal Strategies that are supported by the project include: developing *Partnerships* between communities and industry, and between permitting agencies and affected areas, within the mining industry sector, and between states and regions that manage mining issues; sharing *Information* through reporting, networking, documentation, and education, and by improving knowledge and environmental decision making; and, using *Innovation* in mining practices and technology that can be shared and reapplied across the industry sector to solve priority problems.

Project Schedule

A discussion of potential opportunities to improve environmental permitting and results in the mining industry was initiated between the Kentucky Department for Environmental Protection, the Kentucky Department of Natural Resources, and the West Virginia Department of Environmental Protection in October, 2005. The mining industry is a critical economic enterprise in both Kentucky and West Virginia and is experiencing phenomenal growth that impacts communities and their environmental health. An initial review of methods and materials to improve the relationship between mining companies

and the communities where they are located indicates very little specific research on the impact of increased community engagement and the application of environmental management systems on permitting efficiency, industry performance, and community satisfaction has been completed. Recent discussions with coal trade associations in both states reinforced that there is a desire in the mining sector to better understand methods to include the public in project discussions and to share innovative practices and systems to improve overall mining industry results. Additionally, permitting organizations within both state governments indicated a desire to improve relationships between mining companies and communities to enhance project planning, increase community satisfaction with the outcome, and make permitting more efficient. Based on this discussion and input KDEP, KDNR, and WVDEP have determined that this project is technically feasible and has a high likelihood for success. An initial project activities plan and schedule is as follows:

<i>Start-up and Implementation Milestones</i>	<i>Start</i>	<i>Target Completion</i>
Ky-WVa project kick-off meeting	5/06	5/06
Complete project scope and publish charter document	5/06	6/06
Identify Critical Resource Groups	6/06	8/06
Consult with/interview/survey Resources	8/06	12/06
Identify & Research Critical Info./Educational Needs	8/06	12/06
Develop educational/training materials for mining sector	9/06	3/07
Recruit mining sector leaders to KY EXCEL (Ky only)	9/06	on-going
Plan for 1 st multi-state symposium	9/06	2/07
Develop library for materials and information	1/07	5/07
Announce symposium through multi-media channels	2/07	6/07
Recruit attendees from diverse groups	2/07	6/07
Hold 1 st Multi-state mining symposium	6/07	6/07
Identify mining company volunteers to try new methods	6/07	9/07
Review 1st Symposium for Improvement opportunities	6/07	8/07
Follow-up with volunteers for initial results	6/07	1/08
Consult with/Interview Critical Resources	7/07	12/07
Develop additional educ./training mtl's & update library	8/07	1/08
Plan for 2 nd multi-state symposium	9/07	2/08
Announce symposium and recruit participants	2/08	6/08
Hold 2 nd Multi-state symposium	6/08	6/08
Collect Critique/Feedback and Improve	6/08	8/08

Project Narrative

The mining industry plays a significant role in the social, economic, and environmental health of Kentucky, West Virginia, and many Appalachian and western states. Historically, communities have viewed coal resources as a mixed blessing. Many jobs are directly created to extract coal from deep and surface mines and additional jobs are developed as a result of the many businesses that support and supply the mines. There are, however, significant impacts from coal mining that are not viewed positively. Worker safety has always been a central focus and source of debate but in recent years as coal mining operations continue to expand, there are increasing opportunities for environmental and community health impacts. Mining operations that are not well managed can contribute to water pollution, land and forest depletion, wildlife and

habitat disturbance, dust generation, road and building damage, and noise. Traditionally, residents become aware of mining activities and projects when a notice of permitting activity is posted in the local newspaper. Since they have not been involved in planning and have little information, residents can react with distrust and formally protest any plans to begin or expand mining operations. Permitting agencies (both state and federal) remain engaged after negotiations are settled because, in addition to frequent required site inspections, residents expect them to deal with any citizen complaints. Reclamation efforts and permitting are often viewed with similar distrust by residents who are concerned that mining will have long-term negative impacts on their land. Company applications for permit renewals are frequently late indicating systems might not be in place for managing documents proactively and efficiently.

Despite difficult circumstances, some mining companies are experimenting with the use of components of environmental management systems in improving the on-going operation of their businesses. In other industries such as manufacturing, these systems have delivered improved efficiency, reduced environmental risk and waste, and proven to be a good investment. Identifying appropriate environmental management activities, customizing them for the mining industry, sharing the ideas with industry volunteers, and measuring the impact of system applications could improve overall mining industry performance, increase permitting efficiency, and improve relationships between the industry and impacted communities. Strong environmental management systems require a business to consider public outreach activities, civic responsibilities, and engagement of communities in on-going dialogue and communication. Many mining companies already play an important civic role in the communities where they are sited, but these activities are not well known nor are they documented. Because mining is an industry that will continue to play a vital role in providing energy for our country and because it has tremendous impact on the environmental and economic health of mining states, it is critical that communication and negotiation between communities, the mining industry, and agencies that oversee mining be dramatically improved through innovation that can be transferred across the sector.

This project will focus on improving the overall environmental planning process for mining industry volunteers and will encourage and support the development of increased communication with affected communities as an important component of mining industry EMS business strategy. Community concerns could be handled proactively prior to permitting, or through communication between citizens and industry representatives as issues arise, rather than reactively (and more acrimoniously) after permit issuance. Although this design will reapply ideas from other successful industry applications, this program will demonstrate the use of priority innovations in several ways: (1) critical resources from the mining industry, mining communities, trade associations, universities, professional engineering groups, and government agency experts will be asked to contribute ideas at the outset as a model of future interaction; (2) a "needs assessment" will be conducted to assure the project is focused on developing and delivering tools that are perceived as valuable; (3) information, guidance documents, and training materials will be customized and made available for use by all involved in any aspect of the mining sector; (4) mining sector membership will be encouraged and recognized in KY EXCEL, offering the first specific guidance for the mining sector in a National Performance Track aligned state environmental leadership program (Kentucky activity only); (5) international advances in mining industry

environmental results will be reviewed and included in development of best practices; (6) for the first time, voluntary use of EMS's, including community engagement activities and environmental projects, will be monitored and tracked to measure impacts on the mining permitting process and on community satisfaction with the process; (7) information will be shared at a multi-state symposium that will become an annual event focused on continuous improvement for the entire mining industry; (8) the program will provide an innovative opportunity for building networks not only within like businesses, agencies, and communities but also across traditional political and geographical boundaries.

Performance measures will center on start-up effectiveness and outputs during the first and second year and environmental outcomes in the third. In the first two years, output measures will include;

- Development of mining industry prototype environmental management systems
- Development of a prototype public involvement process that is focused on mining industry and mining community interaction
- Development of an environmental resource library for the mining sector
- Delivery of a multi-state symposium for the mining sector
- The number of mining businesses, agencies, associations, and other groups that participate in the symposium
- The company location of symposium participants and how extensively the mining industry is represented across Kentucky and West Virginia mining communities
- On-time delivery of the proposed project schedule

In the third year, program measures will include both quantitative and qualitative data;
Quantitative Data

- The number of mining companies who volunteer to try components of an EMS
- The number of instances where initial public engagement is used in permitting
- The % reduction in mining environmental incidents related to vs. benchmark
- Improved percentage of on-time permit renewals
- The type and number of environmental projects committed to and completed
- The number of mining entities who choose to join KY EXCEL (Ky measure only)
- The number of participants who drop out of process and why
- Total attendance at networking events
- Reduction of agency involvement in managing permitting issues

Qualitative Data

- Perceived value of engagement processes and EMS's to communities & industry
- Number/quality of formal and informal networks and partnerships established
- Overall impact on enforcement actions and field office efficiencies
- State environmental focus areas improved
- Requests for guidance from other states and reapplication of processes
- Symposium is valued and continues to be sustained

Longer-term measures will be evaluated after the project's third year to determine additional program impacts such as improved public perception of environmental health, improved community and industry satisfaction with mining-community relationships, or increased economic opportunity for the state as a result of the enhanced environmental image the program will generate.

Preliminary Budget Proposal- Permitting Improvement in the Mining Industry

[Withheld by EPA]