Action Undertaken to Address An Independent Panel Assessment of an Internal Review of MSHA Enforcement Actions at the Upper Big Branch Mine South

Following the explosion at the Upper Big Branch Mine-South (UBB), then-Secretary of Labor Hilda Solis asked the Director of the National Institute for Occupational Safety and Health (NIOSH) to identify a team of experts to review the policy, process and substance of MSHA's internal review.

On March 22, 2012, the Independent Panel (IP) published its Report, which is available on MSHA's website at: http://www.msha.gov/PerformanceCoal/PerformanceCoal.asp. The Report contained suggestions intended to further four specific goals (See for example, p. 11 of the Report). MSHA has undertaken a number of actions to address those goals and continues to do so:

Modify the Internal Review Process: The IP suggested that MSHA modify the way it conducts its internal reviews in order to enhance their value to the Agency and to the public. MSHA agrees and has been revising its Administrative Policy and Procedure Manual, which governs internal review procedures.

MSHA believes that internal review (IR) interviews could be more effective and efficient, and it is exploring options, such as greater involvement by the Office of the Solicitor and providing special training on interview techniques for those who conduct interviews, to achieve this goal. Prior to the IP report, MSHA began working with the Federal Bureau of Investigation (FBI) to provide training to agency accident and special investigators on agency investigation and interview techniques. These types of training techniques could also help MSHA to improve the internal review process.

Ensure that Corrective Actions are Successfully Implemented: The IP suggested that an independent monitor be appointed to oversee implementation of MSHA's corrective actions to ensure that corrective actions are successfully implemented. MSHA recognizes the importance of transparency and effective implementation of the corrective actions and has put into place a number of measures to hold the Agency accountable for the implementation of corrective actions. MSHA is providing the public with information on the actions it has completed by posting them on the MSHA web site each quarter, and it has set up an Agency review process to ensure that the program areas responsible for implementing the corrective actions are completing their work and

reporting their results in a timely fashion. The final review of the implementation of all corrective actions is made by the Office of the Assistant Secretary. Finally, MSHA's newly organized Office of Assessments, Accountability, Special Enforcement and Investigations (OAASEI) has been charged with evaluating the effectiveness of MSHA's corrective actions.

Establish a Technical Foundation for Improved Practices: The IP identified certain engineering gaps existing in mine systems and suggested best practices, policies and procedures for addressing these gaps through technical achievement goals on six issues. These goals include: developing best practices for ventilating the longwall face and tailgate; defining the relative merits of bleeder and bleederless ventilation systems; developing best practices for the location of monitors on and around the face; developing best practices for employing monitoring systems to detect unexpected changes to ventilation; developing appropriate sampling procedures to determine the adequacy of rock dust; and determining the relative merits of applying active and passive barriers in specific circumstances.

Ventilation: Before the UBB explosion, MSHA was active in exploring the best ways to ventilate underground coal mines including bleeder systems. The merits of bleeder vs. bleederless systems were thoroughly debated during the 1992 and 1996 revisions to the underground coal ventilation rules.

Atmospheric monitoring systems to detect unexplained changes to ventilation systems are long overdue, and MSHA supports improvements in this technology to enhance the safety of underground miners. MSHA provided technical advice on this technology to Congressional drafters of the Robert C. Byrd Safety Protection Act (Byrd Act), introduced in both the U.S. Senate and House of Representatives in 2010. Under the draft legislation, NIOSH would develop recommendations on the implementation of atmospheric monitoring technology and the Secretary of Labor would develop regulations on these recommendations.

MSHA continues to advocate for improvements to atmospheric monitoring systems and has requested assistance from NIOSH to provide recommendations on the implementation of this technology. MSHA is working with NIOSH on a number of research issues and would support NIOSH recommendations on the use of improved atmospheric monitoring technology.

Rock dust: Considerable research has been conducted on the prevention of coal dust-fueled coal mine disasters over the years. Recent research by NIOSH, completed in

2010, recommended that rock dust be increased in coal mines so that coal mine dust would have a total incombustible content of at least 80% in order to prevent mine explosions. MSHA immediately acted on that recommendation, and on September 23, 2010, published an emergency temporary standard that adopted NIOSH's recommendation. In June, 2011, MSHA published its final rule, which requires all underground coal mine operators to meet the 80% total incombustible content standard. MSHA believes the rule will help prevent coal dust fueled explosions. If the operator at UBB had adequately rock dusted the mine, the localized methane explosion would not have propagated into a massive coal dust explosion. The IP Report identified the issue of active and passive barriers as another prevention measure. NIOSH has indicated that further research is needed on this approach and MSHA would lend support to NIOSH's efforts to conduct that work.

MSHA agrees with the IP that better sampling procedures are needed to determine the adequate inertization of float coal dust and supports the use of the Coal Dust Explosibility Meter (CDEM) technology. That device, developed through NIOSH research with assistance from MSHA, can provide a quick assessment on the explosive potential of coal mine dust, which is far preferable to the current sampling procedures that require several days of laboratory analysis before the results are known. On January 25, 2013, MSHA issued a Program Information Bulletin to encourage underground coal operators to use this new technology and to advise them and other interested parties of a recently published NIOSH field study report addressing the development and use of CDEM technology.

In addition, in collaboration with NIOSH, MSHA has been developing a new standard method for collecting rock dust samples that inspectors would use to determine compliance with the rock dust standard. MSHA coal inspectors would use this method when the newly-revised General Coal Mine Inspection Procedures and Inspection Tracking Handbook goes into effect in the spring of 2013. Before implementing the sampling procedure, MSHA will train its enforcement staff and conduct outreach to the industry and other interested parties on the new procedure.

Regulatory activity: The IR report contained a number of recommendations for regulatory action, and MSHA is evaluating those recommendations. The ventilation, atmospheric monitoring and rock dust issues arising from the UBB tragedy, including the technical goals in the IP report, are a part of this review.

Modify the Existing Enforcement Paradigm:

Changes to the existing enforcement model: The IP suggested that an independent panel of experts be convened to examine changes to MSHA's existing enforcement paradigm. MSHA's existing regulatory structure was developed by Congress in the 1969 Federal Coal Mine Health and Safety Act and re-codified in the Federal Mine Safety and Health Act of 1977 (Mine Act). It allows MSHA to conduct rulemaking, which includes public comment, and also gather information on issues of miner safety and health through such mechanisms as Requests for Information and public meetings.

While MSHA continually engages its stakeholders, including experts, in its enforcement and regulatory efforts to improve health and safety for the Nation's miners, the Agency believes that making some of the Mine Act changes that the IP suggested the panel consider would not be in the interest of miner safety. The requirement to conduct the currently mandated inspections at underground mines is central to the law's effectiveness. Frequent MSHA inspections identify and require the corrections of hazards and violations that have not been corrected by the mine operator, thereby preventing miners from harm. In addition, the Mine Act contains provisions, including MSHA's approval of coal mine operator roof control and ventilation plans, to prevent injury, illness and death in the nation's underground coal mines. These requirements have resulted in a substantial decrease in deaths and injuries at mines. Making the change suggested by the IP report could well reverse the long-term safety and health gains made under the current approach.

MSHA has implemented a number of initiatives to more effectively administer the Mine Act. These include its strategic impact inspection program implemented in 2010 and revisions to its pattern of violations program. Both programs target mines with greater safety or health issues or with chronic compliance problems. MSHA also believes that certain mine operators should take greater responsibility in their mines, and its new rule regarding mine examinations, which became effective on August 6, 2012, requires underground coal mine operators to take greater responsibility for examination of their mines to assure compliance with specified mandatory standards.

MSHA also supports operators' use of effective safety and health management programs, a specific suggestion of the IP and has been gathering information about these systems for some time. In 2010 and 2011, MSHA issued two notices of public meetings for public and stakeholder input on this issue, and four meetings were held.

Comments received in response to the notices and transcripts of testimony taken at the meetings are available on MSHA's website at http://www.msha.gov/REGS/Comments/2010-22403/SafetyHealth.asp. The Record is still open for comments.

Evaluate the effectiveness of its enforcement: MSHA regularly and consistently evaluates the effectiveness of its enforcement programs. These evaluations led to new initiatives MSHA has undertaken, such as the Impact Inspection, improved Pattern of Violations, "Rules to Live By" and the "End Black Lung—Now" programs. Another program is MSHA's Worker Voice program that encourages miners to speak out about unsafe practices and the Agency works to protect their legal rights if they do. By assuring that miners can exercise their rights, MSHA is better able to identify and require abatement of hazardous conditions.

Place responsibility for data collection on the mine operator: Under MSHA standards and regulations, mine operators currently are required to collect data, including information on air measurements and respirable dust. MSHA supports improved data collection by operators, such as data derived from the use of atmospheric monitoring systems and CDEMs. Its new rule regarding underground coal mine examinations is also designed to assure that data collected by operators is used effectively to identify and correct mine hazards.

Explore new solutions to improve workforce readiness: MSHA's workforce readiness activities include distance learning, web-accessible training, and the consolidation of MSHA policies and procedures into one user-friendly system. MSHA is always exploring ways to maximize the use of equipment, information technology and training to improve workforce readiness.

Improve MSHA's utilization of information technology: MSHA has improved its utilization of information technology by reorganizing the Office of Assessments into the Office of Assessments, Accountability, Special Enforcement and Investigations (OAASEI) so MSHA can enhance the management, administrative and analytical support for this program while retaining its independence from the mine inspection program areas; completing planned upgrades to the National Air and Dust Laboratory with updated computer systems and equipment; and developing an integrated tracking system to monitor training of MSHA employees.