



CONGRESSIONAL BUDGET OFFICE
COST ESTIMATE

November 15, 2007

H.R. 2768
Supplemental Mine Improvement and New Emergency
Response Act of 2007

*As ordered reported by the House Committee on Education and Labor
on October 31, 2007*

SUMMARY

The Supplemental Mine Improvement and New Emergency Response Act of 2007, H.R. 2768 would require operators of mineral and non-mineral mines to increase worker safety measures and improve emergency preparedness. It would require the Mine Safety and Health Administration (MSHA) to issue new regulations on a variety of mine safety issues, including underground refuges, mine ventilation, and communication systems. H.R. 2768 also would temporarily suspend limits on the number of mine inspectors employed by MSHA, and would call for an increase in mine inspection activities. In addition, the bill would require the agency to maintain and publish detailed maps of active and abandoned mines in the United States. The bill would also adjust the minimum and maximum civil penalties that MSHA may levy on mine operators.

Assuming appropriation of the necessary amounts, CBO estimates that implementing the bill would cost \$14 million in 2008 and \$117 million over the 2008-2012 period. By increasing civil penalties, H.R. 2768 would increase federal revenues by \$14 million in 2009, \$68 million over the 2008-2012 period, and \$157 million over the 2008-2017 period, CBO estimates. Enacting H.R. 2768 would not affect direct spending.

H.R. 2768 contains an intergovernmental mandate as defined in the Unfunded Mandates Reform Act (UMRA) because it would limit the authority of states to disbar or discipline attorneys in some circumstances. CBO estimates, however, that the mandate would impose no costs on state, local, or tribal governments.

H.R. 2768 would impose several mandates, as defined in UMRA, on operators of underground mines. Those mandates would require operators to install certain systems and devices, provide equipment to miners, and comply with other safety requirements. Based on information from MSHA and industry experts, CBO expects the aggregate cost of the

mandates would exceed the annual threshold established in UMRA (\$131 million in 2007, adjusted annually for inflation).

ESTIMATED COST TO THE FEDERAL GOVERNMENT

The estimated budgetary impact of H.R. 2768 is shown in the following table. The costs of this legislation fall within budget function 550 (health).

	2008	2009	2010	2011	2012	2008-2012	2008-2017
CHANGES IN SPENDING SUBJECT TO APPROPRIATION							
Estimated Authorization Level ^a	19	21	27	27	27	121	n.a.
Estimated Outlays	14	23	26	27	27	117	n.a.
CHANGES IN REVENUES							
Estimated Revenues	*	14	18	18	18	68	157

Notes: n.a. = Not applicable; * = Less than \$500,000.

- a. Although fiscal year 2008 is already underway, this estimate assumes final appropriation legislation for 2008 action would include funding for activities required by H.R. 2768.

BASIS OF ESTIMATE

Changes in Spending Subject to Appropriation

Assuming appropriation of the necessary amounts, CBO estimates the total cost to the federal of government of implementing H.R. 2768 would be \$14 million in 2008 and \$117 million over the 2008-2012 period. This estimate assumes that the necessary funds would be appropriated early in fiscal year 2008 and for subsequent years and that outlays would follow historical patterns for similar activities.

Among the provisions contained in the bill, H.R. 2768 would:

- Require MSHA to establish a mining map repository and post copies of all maps on the internet,
- Require MSHA to inspect all mine seals under construction and a sample of existing seals,
- Mandate the inspection of self-rescue vehicles by the National Institute for Occupational Safety and Health,
- Institute a new mine safety inspector initiative and provide MSHA with conditional authority to hire contractors to perform mine inspections,
- Require MSHA to establish and maintain a 24-hour emergency call center,
- Require MSHA to designate at least one employee to serve as a family liaison during events when miners are trapped or injured,
- Require numerous reports on various subjects from MSHA and the National Academy of Sciences, and
- Require the Department of Labor to establish a mine safety advisory committee as well as an office of miner ombudsman to monitor mine safety.

The largest portion of the bill's cost is attributable to the requirement that MSHA maintain a repository for maps of all active and abandoned mines in the United States and post digitized versions of those maps on the internet. There are more than 10,000 active mines in the United States and the number of abandoned mines has been estimated at more than half a million. Several states and the federal government have programs underway to digitize certain mine maps, but the vast majority of mining maps have not been digitized. The cost of collecting, scanning, electronically posting and storing those maps could be substantial. Based on information from MSHA and other sources, CBO estimates the cost to MSHA of implementing this requirement alone would be more than \$50 million over the 2008-2012 period. Most of the other major provisions would cost between \$1 million and \$3 million per year.

Revenues

Under current law, civil penalties for mine safety violations are capped at \$60,000 per violation. MSHA also assesses a minimum penalty of \$100. Under H.R. 2768, both the cap and floor would be adjusted for both “significant and substantial” violations and all other violations. For “significant and substantial” violations, the bill would set the minimum penalty at \$1,000 and the maximum at \$150,000 for each violation. For other violations, H.R. 2768 would create a minimum of \$500 and a maximum of \$100,000 for each violation. Further, the law would create a new fine for patterns of mine health and safety violations with a minimum of \$50,000 and a maximum of \$250,000. Additionally, the bill would adjust the minimum and maximum fines for discrimination against an individual who files a complaint and for interference with a mine inspection to \$10,000 and \$100,000. Civil

penalties are recorded in the federal budget as revenues net of offsetting effects on income and payroll tax receipts.

Based on information provided by MSHA on past violations, CBO estimates those changes would increase federal revenues by \$14 million in 2009, by \$68 million over the 2008-2012 period, and by \$157 million over the 2008-2017 period.

ESTIMATED IMPACT ON STATE, LOCAL, AND TRIBAL GOVERNMENTS

States currently have the authority to establish and enforce standards of conduct for attorneys practicing in their states. H.R. 2768 would prohibit any state bar or state court from disbaring or disciplining an attorney under some circumstances. The bill would protect attorneys for the Department of Labor who contact miners or non-managerial mining employees during the course of a safety investigation from disciplinary action or disbarment under state law. That preemption of state law and disciplinary standards would be an intergovernmental mandate as defined in UMRA. However, because the preemption would simply limit the application of state laws, CBO estimates that the mandate would impose no costs on state, local, or tribal governments.

ESTIMATED IMPACT ON THE PRIVATE SECTOR

H.R. 2768 would impose several mandates, as defined in UMRA, on operators of underground mines. Those mandates include, but are not limited to, requirements to:

- Install conveyor belts that meet certain flame resistance requirements by 2012;
- Monitor behind certain mine seals using a continuous motoring device;
- Equip each miner with a personal dust monitor;
- Install an atmospheric monitoring system; and
- Provide a certain post-accident communication and tracking system.

CBO expects the aggregate cost of the mandates in the bill would exceed the annual threshold established in UMRA (\$131 million in 2007, adjusted annually for inflation).

Conveyor Belts

Section 4(d) would require operators of underground coal, metal, and nonmetal mines to install conveyor belts by December 31, 2012 that meet certain flame resistance requirements recommended by the National Institute for Occupational Safety and Health. Based on information from industry experts, CBO expects most belts, if not all, would have to be replaced. According to those experts and MSHA, the total length of conveyor belts in

underground mines (coal, metal, and nonmetal mines) is greater than 25 million linear feet and the price of the compliant belt would be about 40 percent greater than the current price per linear foot (about \$46/ft) for conveyor belts. Based on those data, and assuming that fewer than 20 percent of the belts are replaced on average each year, the incremental cost of purchasing belts that comply with the new standard would be more than \$600 million over the 2008-2012 period. The cost would also include installation costs for belts that would not otherwise be replaced during the five-year period.

Continuous Monitoring Devices

Section 4 (c) would require operators of underground coal mines to monitor seals that cannot withstand a constant total pressure of 240 pounds per square inch. The monitoring of seals would have to be done with continuous monitoring devices. According to industry sources, continuous monitoring devices are not currently used in underground mines in the United States. Those sources also estimate that the devices could cost up to \$400,000 per system to install based on the cost of such systems in Australia. Based on an MSHA estimate that approximately 300 underground mines would monitor seals, the cost of the mandate could amount to about \$120 million.

Personal Dust Monitors

Section 7 would require each coal miner in an underground mine to be equipped with a personal dust monitor that measures, records, and displays in real time the concentration of respirable dust. According to industry experts, personal dust monitors that meet those specifications cost between \$8,000 and \$12,000. According to data from MSHA, approximately 42,000 miners are employed in underground coal mines. If one-fourth to one-third of the workforce is working underground during a shift, the initial cost to supply each worker on a shift with personal dust monitors would amount to at least \$100 million.

Atmospheric Monitoring Systems

Section 4(f) would require operators of an underground mine to install atmospheric monitoring systems in all underground areas where miners normally work and travel. Currently, MSHA only requires an atmospheric monitoring system to be installed when belt air is used for ventilation. Based on information from MSHA, CBO expects that more than 400 mines would be required to install an atmospheric monitoring system at a cost of \$150,000 per mine. Therefore, the initial cost to the industry to comply with the mandate would be greater than \$60 million.

Post-Accident Communication Systems

Section 4(a) would require operators of underground coal mines to provide for a post-accident communication system that is at least as effective as a wireless mesh type or 'leaky feeder' communication and tracking system within 120 days of the date of enactment. According to industry sources, only leaky feeder systems have been approved by MSHA. Based on information from MSHA, CBO expects that approximately 500 mines would be required to install a system at an average cost of \$400,000 per mine.

Other Mandates

The bill would impose several other mandates on operators of underground mines. It would prohibit the use of certain ventilation systems except in the case of safety constraints. Based on information from industry experts, CBO expects that few mines would have to provide another entry for ventilation and, therefore, that the cost would not be significant.

In addition, the bill would require operators to comply with regulations issued by MSHA for seals in underground coal mines and expand existing seal requirements to certain seals in underground metal and nonmetal mines. Operators also would be required to comply with new requirements for refuge chambers, ventilation controls, and roof screens. Additional mandates would establish standards for respirable dust and other chemicals, and require operators to comply with reporting and notification requirements. CBO has no basis to determine the costs to comply with those mandates.

ESTIMATE PREPARED BY:

Federal Spending: Geoffrey Gerhardt

Federal Revenues: Zachary Epstein

Impact on State, Local, and Tribal Governments: Lisa Ramirez-Branum

Impact on the Private Sector: Amy Petz

ESTIMATE APPROVED BY:

Keith J. Fontenot

Deputy Assistant Director for Health and Human Resources,
Budget Analysis Division