

COALEX STATE COMPARISON REPORT - 289

June 1994

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TOPIC: MINE RISK ASSESSMENT TO DETERMINE MINE INSPECTION FREQUENCY

INQUIRY: Virginia Department of Mines, Minerals and Energy is beginning the process of implementing a new mine safety law that was passed this year. The law calls for DMME to develop a mine risk assessment tool that will be used to determine the amount of risk present at a mine. Mines that are rated as having a higher degree of risk will be inspected more frequently than mines determined to have a lower degree of risk. DMME would like to build on knowledge gained from other states that may have already undertaken a study of this area. Please survey IMCC member states using the attached questionnaire and locate any relevant literature on this issue.

SEARCH RESULTS: Ten IMCC member states responded to the survey:

- 1. Alabama
- 2. Illinois
- 3. Indiana
- 4. Kentucky
- 5. Louisiana
- 6. Maryland
- 7. Oklahoma
- 8. Pennsylvania
- 9. Texas
- 10. West Virginia

Only Oklahoma and Pennsylvania indicated that they have mine risk assessment programs. Oklahoma's program covers surface and underground coal mines and surface mineral mines. Pennsylvania's program covers underground coal and mineral mines. Contacts for both of these states are provided. Results of the survey are provided below.

In addition to the survey, research was conducted using NEXIS and LEXIS. This research produced articles from coal and related publications, and preambles to Mine Safety and Health Administration notices published in the Federal Register regarding



patterns of violations and criteria for assessment of civil penalties. While the articles and Federal Register preambles do not specifically discuss mine risk assessment issues, they do describe the mine safety factors that can be used to develop a mine risk assessment tool. [See the list of attachments.]

QUESTIONNAIRE RESPONSES

| SURFAC COAL MINES | E UNDERGR COA MINE | L | SURFACE MINERAL MINES | | UNDERGROUND MINERAL MINES | |
|---|--|--|-----------------------------|--|---------------------------------|--|
| YES NO |) YES | NO | YES | NO | YES | NO |
| OK AL IL IN KY LA MD TX WV | OK PA TX* * Only for pits within 200 ft. of public road | AL IL IN KY LA MD WV | ОК | AL IL IN KY LA MD TX WV | PA | AL IL IN KY LA MD TX WV |

1. Does your state presently assess the safety risks present at:

2. Has your state ever assessed safety risks in the past at:

| CC | FACE DAL NES | UNDERGRO COAL MINES | | SURFACE MINERAL MINES | | UNDERGROUND MINERAL MINES | |
|-----|--------------------|---------------------------|----|-----------------------------|----|---------------------------------|----|
| YES | NO | YES | NO | YES | NO | YES | NO |
| OK | AL | OK | AL | OK | AL | PA | AL |
| | IL | PA | IL | | IL | | IL |
| | IN | | IN | | IN | | IN |
| | KY | | KY | | KY | | KY |
| | LA | | LA | | LA | | LA |
| | MD | | MD | | MD | | MD |
| | ТΧ | | WV | | ТХ | | ТХ |
| | WV | | | | WV | | WV |



3. Does your state plan to conduct safety risk assessments in the future at:

| SURFACE COAL MINES | | UNDERGROUND COAL MINES | | SURFACE MINERAL MINES | | UNDERGROUND MINERAL MINES | |
|--------------------------|--|------------------------------|--|-----------------------------|--|---------------------------------|--|
| YES | NO | YES | NO | YES | NO | YES | NO |
| ОК | AL IL KY LA MD TX WV | OK PA | AL IL IN KY LA MD WV | ОК | AL IL KY LA MD TX WV | PA | AL IL IN KY LA MD TX WV |

RESPONSES OF THE STATES WITH RISK ASSESSMENT PROGRAMS

| QUESTIONS | OKLAHOMA RESPONSES | PENNSYLVANIA |
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| the results? | | |
|--|--|---|
| Do you have any suggestions or comments for other states who are implementing a mine safety risk assessment program? | No. For additional information, contact: James Hamm, Director OK Dept of Mines 4040 N. Lincoln, Suite 107 Oklahoma City, OK 73105 (405)521-3859 | For further information, contact: Thomas J. Ward, Jr., Director Bureau of Deep Mine Safety PA Dept of Environmental Resources Harrisburg, Pa 17105 (717)787-1376 |

ADDITIONAL COMMENTS

KENTUCKY

Kentucky does not have a risk assessment program to determine which mines require more frequent inspections. It does have a program, instituted by the state legislature, to create a safer work environment at mines. This state safety analysis program provides training and education at mine sites. When an inspector identifies a potential problem at a mine, the inspector can request that a job safety analyst be sent to the mine. The potential problem areas or jobs are analyzed and appropriate training and information are provided. The job analysts have the same powers as inspectors, but these powers are secondary to their training and education responsibilities.

WEST VIRGINIA

Safety risks are assessed during inspections and appropriate enforcement action is taken. West Virginia mining law requires a specific number of inspections per mine on an annual basis. There are no recognized statutorily structured guidelines which allow flexibility. Additional inspections may be made at particular mine sites over the required minimum number of inspections, as needed.

ATTACHMENTS

A. PUBLICATIONS

- 1. "Virginia changes mine inspection routines", COAL OUTLOOK (March 28, 1994).
- 2. "MSHA won't appeal dust ruling", COAL OUTLOOK (February 14, 1994).
- 3. "Mine safety and health enforcement in 1994", COAL (January, 1994).
- 4. West Virginia, federal mine agencies launch joint safety program; West Virginia Division of Energy; Mining Safety and Health Association", E-MJ ENGINEERING & MINING JOURNAL (February, 1991).
- 5. "Prepare for pattern of violations", COAL (December, 1990).



- 6. "Dangerous mines pay higher fines", E-MJ ENGINEERING & MINING JOURNAL (October, 1990).
- 7. "Goal is to eliminate mine fatalities within 10 years", COAL (August, 1990).
- 8. MSHA suspends rule, now considers operator history in violation assessments", COAL WEEK (January 8, 1990).
- 9. "Keeping on top of accidents and violations", COAL (December, 1989).
- 10. "Ways to reduce electrical accidents in coal mines recommended", COAL (November, 1982).
- 11. "Industry in Action; Meetings", THE MINING JOURNAL (January 14, 1994).
- 12. "Ranger awarded four stars", THE MINING JOURNAL (April 19, 1991).
- "European parliament approves proposal setting safety measures for mining activities", OCCUPATIONAL SAFETY & HEALTH REPORTER (November 4, 1992).
- B. FEDERAL REGISTER NOTICES: CRITERIA FOR PROPOSED ASSESSMENT OF CIVIL PENALTIES
 - 1. 57 FR 60690 (DECEMBER 21, 1992). Final rule.
 - 2. 57 FR 2968 (JANUARY 24, 1992). Final rule.
 - 3. 57 FR 2972 (JANUARY 24, 1992). Proposed rule.
 - 4. 55 FR 53482 (DECEMBER 28, 1990). Proposed rule.
 - 5. 47 FR 22286 (MAY 21, 1982). Final rule.
- C. FEDERAL REGISTER NOTICES: PATTERN OF VIOLATIONS.
 - 1. 55 FR 31128 (JULY 31, 1990). Final rule.
 - 2. 54 FR 23156 (MAY 30, 1989). Proposed rule.
 - 3. 50 FR 5470 (FEBRUARY 8, 1985). Withdrawal of proposed rule; notice of proposed rulemaking.
 - 4. 45 FR 54656 (AUGUST 15, 1980). Proposed rule.