| DIVISION OF MINES | CHAPTER: IV   Inspections |
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| PROCEDURES MANUAL | |
| | PROCEDURE NO:  1.04.06 |
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| SUBJECT:   Risk Assessment | LAST REVISED:  10/03 |

**OBJECTIVE AND INTENT**

To schedule and focus DM inspection activities and other resources to those mines identified as having the highest risk in order to improve health and safety performance.

**PROCEDURE**

1.  Risk Assessment will be established for all mines based on this procedure developed with the assistance of the Industry Advisory Committee for application by the Division of Mines in accordance with Section 45.1-161.81 and 45.1-161.82 of the Mine Safety Act.

    ■ Separate underground and surface coal mines into groups. Using data collected during the previous year, assess risk in the following five categories for each mine:

        a.  Serious Injuries - based on number of <u>investigated</u> serious injuries at a mine/inspection hours
        b.  Violation Rate - number of violations/ inspection hours
        c.  Failure to Abate/Imminent Danger - number of CO's/inspection hours
        d.  NFDL Rate - based on MSHA data
        e.  RG/SI Rate - mine evaluation based on inspector review

    ■ Underground mines will be ranked each six months; Jan. 1 and on July 1 (using previous year's data).

    ■ Surface mines will be ranked on July 1 for yearly ranking.

2.  Determine a mine's score in each of the categories shown above, using the methodology shown below.

    ■ Determine the rate for each mine (for example, serious injury rate):
        a.  Determine from computer data the number of serious injuries <u>investigated</u> at a mine. A mine that had no serious injuries for the evaluation period (0's) will be included in the calculation of the state average.

b.  Divide the findings of step (a) by the number of inspection hours the mine received. The result is the mine's serious injury rate.

- Determine the average serious injury rate for the state by adding all of the mines' serious injury rates together, then divide by the total number of mines to get the average serious injury rate for the state.

    a.  Increase the state average by 10% for the high-risk grouping.
    b.  Decrease the state average by 10% for the lowest risk grouping.
    c.  Lowest risk group gets 0 points
    d.  Middle group gets 1 point
    e.  High risk group gets 2 points

3.  Add up the score for each of the categories to determine the mine's total score. With five categories a possible 10 points could be reached.

4.  Rank the mines according to their overall score.

5.  The type and frequency of inspection received by a mine will be determined by its overall score, in conjunction with the table shown below:

**Underground Coal Mines**

| Overall Score | Type/Frequency of Inspections | |
|---|---|---|
| 0 - 1 | 1 regular inspection | per 6 months |
| 2 - 4 | 1 regular and 1 spot inspection | per 6 months |
| 5-10 | 2 regular inspections | per 6 months |
| Fatality | 4 regular inspections | per year |
| New Mine | 4 regular inspections | per year |

**Surface Coal Mines**

| Overall Score | Type/Frequency of Inspections | |
|---|---|---|
| 0 - 1 | 1 regular inspection | per year |
| 2 - 4 | 1 regular and 1 spot inspection | per year |
| 5-10 | 1 regular and 2 spot inspections | per year |
| Fatality | 2 regular inspections | per year |
| New Mine | 4 regular inspections | per year |

6. USE OF RISK ASSESSMENT FORMS

■ Along with the statistical data that will be tracked by the computer, DM inspectors will use a "Risk Assessment Form" tailored for either surface or underground coal mines. This form will allow the inspector to rate the mine in such areas as roof conditions, ventilation, etc. Use of this form will allow the inspector to assess the risk potential of these areas <u>before</u> a data collection event (such as a serious injury or CO) occurs.

■ During the course of regular inspections, the inspector will review a summary of the most current risk assessment status for each mine with the operator or his agent.