

<b>DIVISION OF MINES</b>	<b>CHAPTER: V Investigations</b>
<b>PROCEDURES MANUAL</b>	
	<b>PROCEDURE NO: 1.05.03</b>
	<b>ISSUE DATE: January 1, 1997</b>
<b>SUBJECT: Methane Ignition</b>	<b>LAST REVISED: 10/00</b>

## **OBJECTIVE AND INTENT**

To provide procedures for conducting an investigation of all reported ignitions of methane gas in order to safely determine the causes for the incident and to address preventive measures to control reoccurrence.

## **PROCEDURE**

### **1. ARRIVAL AT MINE SITE**

- A Closure Order may be issued under Section 45.1-161.91.A.(ii) as may be necessary to preserve the scene during the investigation.
- Assure that the incident site is made safe and/or properly dangered off.
- Assure that proper communications have been followed.
- Schedule a formal investigation which involves all essential parties.

### **2. INVESTIGATION DATA COLLECTION**

- Investigate incident scene and question witnesses and management to obtain details pertaining to the cause of the incident.
- Review available records relative to the incident.
- Interview witnesses and other personnel having potential knowledge of the incident to determine the following:
  - a. Extent and duration of flame
  - b. How flame was extinguished
  - c. Condition and location of equipment during occurrence
  - d. Personnel participating in extinguishing flame
  - e. Depth of cut
  - f. Condition and extent of line brattice
  - g. Location of crew and equipment prior to the incident
  - h. Changes made to the site

- i. Times :
  - (1) shift began
  - (2) arrival on section
  - (3) of incident
  - (4) of notification to DM
- j. Location production began
- k. Pre-shift air readings
  - l. CH<sub>4</sub> readings—gob and face
- m. Sequence of cuts prior to incident
- n. Foreman location at time of incident
- o. Equipment description and serial numbers
- p. Other information as may be relevant to incident

■ Examine incident area:

- a. Check air quality for O<sub>2</sub>, CH<sub>4</sub>, CO
- b. Check ventilation
- c. Check roof and ribs
- d. Check equipment

■ Obtain air quantity:

- a. Intake
- b. Return
- c. Gob
- d. Behind the line brattice
- e. Longwall or other working face

■ Check for potential ignition sources.

- a. Check equipment permissibility in affected area.
- b. Check condition of cutting bits
- c. Check water sprays
- d. Review cutting and welding procedures

■ Complete On Site Activity

- a. Issue appropriate Notices of Violation
- b. Update the appropriate supervisor prior to the end of the normal working day with current status of investigation.

### 3. DETAIL REPORT OF INVESTIGATION

- A report will be prepared after the investigation is completed by the Inspector or Specialist. The complete report will render circumstances/cause of the incident and contain recommendations for the prevention of similar incidents. DM personnel will provide a copy of the certificate of inspection to the mine operator or his agent, one copy to the employee's representative, and one copy will be posted at a prominent place on the mining premises where it may be reviewed by the employees. If the ignitions involve damages and/or injuries, a formal report will be submitted to the Chief within five working days after the investigation is complete.