

# BLEEDER PLAN

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Company Name

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Mine Name or Number

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Date

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DM Mine Index Number

## General:

1. A wrap around type bleeder system or other equally effective means, approved by the Chief, will be used to ventilate worked out areas of the mine whether pillared or non-pillared.

## Ventilation Control:

2. Permanent ventilation controls will be used to direct and regulate air flow through the bleeder system and into main returns.
3. The bleeder system will be designed such that changes in the barometric pressure will not adversely affect the flow of air in the system.
4. A measurable movement of air will be maintained at all approved bleeder evaluation locations. The volume of air flow will be sufficient to maintain normal levels of methane and oxygen at all times.
5. Positive control of the bleeder air flow will be maintained at all times by utilization of strategically placed regulation.
6. Ventilation controls will be maintained as approved in the Bleeder Plan to ensure that the bleeder air flow is coursed as indicated.

## Examinations and Actions for Excessive Methane:

7. A weekly examination of the entire bleeder system, including bleeder evaluation points, will be conducted at least once every seven days by a certified person designated by the operator. Examinations will include an evaluation of the condition of ventilation controls and air flow direction.
8. Approved bleeder evaluation locations will be clearly indicated at the underground location and a date board will be provided for the examiner to place the date, time, and their initials.
9. The certified person will place the date, time, and their initials in as many locations as necessary to indicate that the entire length of the bleeder system has been examined and on a date board posted at each bleeder evaluation point.
10. Weekly examinations will include a test for methane and oxygen at each approved bleeder evaluation location and at other areas necessary to fully determine that the bleeder system is functioning properly.
11. Weekly examinations will include a measurement of the quantity of air flow at each approved bleeder evaluation location.
12. During examination of the bleeder system, if an increase of 0.5 percent of methane above normal levels or a reduction in the oxygen content below 19.5 percent is detected corrective action will be taken. Such action will include an examination and evaluation of the bleeder system and, if necessary, introduction of additional air flow.

13. Ventilation changes will only be completed with those miners underground necessary to make the change and power to affected units de-energized. Changes to the ventilation system that affect the bleeder system will be approved by the Chief prior to implementation. Ventilation changes are defined as any intentional change in ventilation that:
  - a) Alters the main air current or any split of the main air current in a manner that could materially affect the safety and/or health of persons in the mine; or
  - b) Affects section ventilation by 9,000 cubic feet per minute of air or more.
14. Should methane levels exceed 2 percent in any bleeder split immediately before entering another air split, production on active units that utilize the affected bleeder split will immediately cease. The bleeder system will then be examined and evaluated and appropriate corrective action will be taken to reduce methane levels below two percent.
15. Should methane levels greater than 4.5 percent be encountered anywhere in the bleeder system, production on active mining units in the mine will immediately cease, the power shut off, and work will begin immediately to correct the condition. All miners will be withdrawn from the mine except those necessary to correct the condition. The Division of Mines will be promptly notified.

#### **Bleeder System Changes:**

16. Intentional changes in the ventilation of the bleeder system will be approved by the Division of Mines prior to implementation.
17. Approved bleeder system changes will be reviewed with affected personnel prior to implementation, and will be kept on file at the mine site for review by representatives of the Division of Mines or other interested parties.
18. Ventilation changes affecting the bleeder system will be completed during idle shifts with the power cut off from the affected area.
19. When changes in the bleeder system are completed, a thorough evaluation of the bleeder system and the ventilation system of the mine will be conducted to verify that air is traveling in the proper direction, quantity of airflow is sufficient, and air quality is acceptable.

#### **Roof and Rib Control:**

20. Bleeder entry examinations will include evaluations of the roof and rib conditions in the bleeder system.
21. If hazardous roof or rib conditions are detected, such conditions will be recorded and measures taken to correct the condition. Corrective measures may include the installation of supplemental roof supports and/or danging-off the affected area and redirecting the route of travel.
22. Sloughing of the ribs, draw rock, etc. that interferes with safe travel or function of the bleeder system will be promptly addressed.
23. Bleeder entries that are designed to be traveled will have a minimum of two rows of un-pillared blocks left in place.
24. Bleeder access rooms or taps that are developed with a single room will be supplemented with a single row of cribs on not more than eight foot centers or equivalent.

#### **Water Accumulations:**

25. Water accumulations that interfere with safe travel or function of the bleeder system will be promptly removed by pumping, draining, or substantial bridging constructed.

#### **Unsafe Conditions:**

26. The Division of Mines will be notified if bleeder entry conditions deteriorate to the extent that travel is considered unsafe.

**Seals:**

27. In the event that conditions develop that prevent effective ventilation of the bleeder system, all affected areas will be sealed.
28. Seal construction designs approved by the Mine Safety and Health Administration will be utilized. (Such approved construction designs are not required to be submitted to the Division of Mines.)
29. Prior to the installation of seals, the type of seal, location, sequence of construction, and a letter signed by a professional engineer certifying the seal construction design at the requested locations will be submitted to and approved by the Division of Mines.
30. The Division of Mines will be notified at least 24 hours prior to beginning any construction of seals at approved locations. The Division will be notified within seven days after construction of seals is complete.
31. Seals will be constructed and maintained as designed.
32. Sufficient air flow will be utilized to ventilate the face of seals in order to maintain the air quality in compliance with requirements of the Coal Mine Safety Laws of Virginia.
33. The atmosphere behind seals rated at less than 120 PSI explosive strength will be sampled weekly and the results recorded in a book maintained at the mine.

**Bleeder Map Information:**

34. Bleeder system information, including projected and/or installed ventilation controls of the bleeder system and other worked-out areas, will be shown on the annual map submitted to the Division of Mines every twelve months. Annual mine maps will meet all requirements of §45.1-161.64 of the Coal Mine Safety Laws of Virginia and include the following additional bleeder information:
  - a) The existing bleeder system and projected bleeder system information for one year.
  - b) The locations of all ventilation controls in the bleeder system.
  - c) The direction of air flow throughout the bleeder system.
  - d) Approved bleeder evaluation locations.
  - e) Air quantities at each approved bleeder evaluation location
35. The certified annual map will be accompanied by a letter signed by a responsible individual at the mine stating that the ventilation controls shown are accurate.
36. Overlays and underlays of mine workings will be revised and/or supplemented as required.
37. Approved bleeder evaluation locations (MLs, BEPs, etc.), where the quantity and quality of the bleeder air current is measured, are listed in Attachment A of this plan.
38. Changes in the bleeder system, including the establishment of bleeder evaluation points, will be submitted to and approved by the Division of Mines prior to implementation.
39. A mine map will be maintained up-to-date at the mine and will show, at a minimum, the following bleeder system information:
  - a) The existing bleeder system.
  - b) The locations of all ventilation controls in the bleeder system. The map will be updated as changes or modifications to ventilation controls are completed.

- c) The direction of air flow throughout the bleeder system.
- d) Approved bleeder evaluation locations.

**De-gasification System**

- 40. This mine does not employ a de-gasification system. If needed, a bleeder supplement will be submitted addressing the type of de-gasification system to be utilized and include such other details as specified by the Division of Mines.

**Management Control and Training:**

- 41. The person with overall responsibility for health and safety, as identified in the mine license application, is responsible and accountable for the implementation of this Bleeder Plan.
- 42. The person with overall responsibility for health and safety at the mine will ensure that approved changes in the bleeder system are clearly communicated to all miners.
- 43. Ventilation changes that affect the bleeder system will be conducted under the direct supervision of a certified first-class underground mine foreman.
- 44. The person countersigning the weekly examination book will ensure that all records reflect compliance with requirements of this plan and the *Coal Mine Safety Laws of Virginia* and that any hazardous conditions recorded have been promptly corrected.
- 45. The applicable contents of this plan, including the bleeder system map, will be reviewed with all newly employed miners and annually with weekly examiners and mine foremen.

**Records:**

- 46. Records of bleeder system examinations, conditions encountered, and air quantities and quality at bleeder evaluation points will be maintained in a book kept at the mine. These records must be retained for a period of one year.
- 47. Record books will be available for review by representatives of the Division of Mines at all times.
- 48. A record of the training required under this plan must be maintained at the mine and open for inspection for a period of one year.

## **Attachment A**

No second mining is planned for this mine at this time. Prior to any second mining, all required ventilation must be submitted to and approved by the Division of Mines.