

BRITISH COAL

SOUTH MIDLANDS AREA

BADDESLEY COLLIERY

MAIN FAN RULES PI 1979/3

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MAIN FAN RULES (PI 1979/3)

SECTION 1

GENERAL

- i) A main surface fan or a booster fan, or any unit forming part of any such fan, shall not be stopped for inspection, maintenance or for any planned reason except on the authority of the Manager.
- ii) Where in any part of the mine, the ventilation is interrupted or ceases to be adequate by virtue of the stoppage of the main or booster fan, that part of the mine shall be fenced off to prevent unauthorised persons from entering it. No person shall be permitted to enter that part of the mine except for the purpose of restoring the ventilation, or in the case of emergency:-

All electrical power shall be isolated from that area of the mine so affected.

SECTION 2

MAIN SURFACE FANS

- i) The location of the remote monitoring station for these fans is the surface control room, which has an automatic pressure indicator and fan alarm.
- ii) The equipment used to monitor these fans in the surface fan house, is a water guage, automatic pressure guage, recorder and alarms, a revolution counter, oil bearing level and temperature indicator all with appropriate alarms.
- iii) Examinations of this fan are required to be made at intervals not exceeding eight hours. The examination shall consist of visual examination of the water guage, automatic pressure guage recorder, revolution counter, fan machinery and bearing temperatures. Readings of the water guage and revolutions shall be recorded in M. & Q. book provided.
- iv) The inspection of all component parts of the fan installations shall be carried out daily, weekly, monthly and annual intervals as required by the Managers' P.P.M. Scheme for the mine.
- v) If any unusual occurrence or circumstance associated with the operation of these fans is noticed, then the surface controller shall be notified forthwith. He will immediately notify the person in charge of the mine who will take:-
 - a) such steps as are necessary for the safety of the men underground, and
 - b) initiate remedial action.

SECTION 3

STANDING INSTRUCTIONS

The following instructions are to be observed in the event of:-

- a) planned stoppage of the main surface fan;
- b) an inadvertent stoppage of the main surface fan;
- c) the occurrence of gas fast conditions in any part of the mine except where those parts are covered by auxiliary ventilation rules.

SECTION 3

a) PLANNED STOPPAGE OF MAIN SURFACE FAN

- i) Prior to the stoppage the following precautions will be taken:-
- 1) All deputies and officials whose part of the mine is liable to be affected shall be notified of the intention to stop the fan, the expected duration and any special precautions which are to be observed during the stoppage.
 - 2) Daw Mill Colliery Control Room must be informed of the planned time of the stoppage and its expected duration.
- ii) Immediately the main fan stops the standby fan shall be started and the Control Room informed immediately the fan is running correctly.
- iii) During the period when the standby fan is operational, any auxiliary fan installation likely to be affected shall be stopped to prevent re-circulation. Where auxiliary ventilation fans have been stopped, they shall be restarted only in compliance with the auxiliary ventilation rules.
- iv) In the event of any cessation of ventilation which is of more than 30 minutes duration standing instruction (b) will be implemented.
- v) In any part of the mine in which the ventilation may have been affected substantially, firedamp and air measurements shall be made as soon as possible after the examination and shall be recorded in accordance with REG 9 (5) of the Coal and Other Mines (VENTILATION REGS).

SECTION 3

b) INADVERTENT STOPPAGE OF THE MAIN BUREAU FAN

In the event of an inadvertent stoppage of the main ventilation fan the following standing instructions will apply, if the main fan cannot be restarted immediately:-

- i) The standby fan shall be started and the Manager or the Senior Official in charge of the mine will be immediately informed.
- ii) If the standby fan cannot immediately be started the following steps will be taken. The Senior Official will ascertain the ventilation condition in the mine by environmental monitoring and/or by inspection. He will, if necessary give instructions that all workmen be removed from the return side of any district liable to be affected, to the intake side of that district by the shortest possible route.
- iii) Due regard must be given to isolating the power to auxiliary ventilation systems effected.
- iv) If the ventilation has not been restored within 30 minutes, instructions will be given for the official in charge of the affected district to isolate all power to the district and to accompany his men along the intake roads towards the specified assembly points, these being:-

South Side - Handmade Bunker, 15's Stratford
Bench Side - Bench Loading Point.

N.B. If the stoppage is of more than 30 minutes duration, it becomes reportable to Her Majesties Inspector of Mines.

- v) If the ventilation has not been restored within two hours the men will be instructed to travel along the intake roads to the No. 3 Pit Bottom, and be wound to the surface.
- vi) The operation shall be controlled from the surface control room by the Manager or Senior Official in charge of the mine. Adequate communication and liaison with the control room should be maintained throughout the operation.
- vii) When the mine has been evacuated due to an inadvertent stoppage of the ventilation fan then the fan shall not be restarted except in accordance with the Managers' rules for the degassing of the mine.

SECTION 3

c) MANAGERS DEGASSING RULES FOR A MINE OR PART THEREOF (INCLUDING AUXILIARY VENTILATION HEADINGS)

- i) The operation shall be in the charge of an official of the mine of at least Undermanager status, who will direct the operation from the surface (the surface controller).
- ii) The surface controller shall assess the adequacy of the rules for the prevailing situation and designate the area affected by the operation. He will also nominate the official to take charge underground (underground controller).
- iii) No person shall be underground unless required for the degassing operation. Determinations of noxious gasses and air quantity measurements will be made in the fan drift and downcast shaft before any person will be allowed below ground.
- iv) The surface controller shall take steps to ensure that he is provided with technical advice from electrical and ventilation branches. He will then draw up a detailed procedure for degassing the mine or the affected part of it, paying due regard to limiting the methane concentration emitted into the ventilating airstream to less than 1.25%.
- v) No work, other than work necessary for the safe re-establishment of ventilation and for regulation of the ventilating current, shall be carried out underground within the designated area during the operation.
- vi) An electrical layout plan for the mine shall be prepared, and kept in the emergency box in the control room.
- vii) Suitably qualified members of the electrical staff shall be designated to operate critical switchgear. These persons shall have full charge of the switchgear concerned and act only on direct instructions from the surface or underground controller.

Should any such designated person have cause to leave the switchgear concerned they shall ensure that a personal padlock is applied to it to prevent unauthorised operation.
- viii) Power shall only be restored to districts after they have been inspected. During inspections, officials shall make frequent tests for accumulations of methane and other noxious gasses paying particular regard to the possibility of methane layering. Any accumulations found shall be dispersed in an approved manner. Any switchgear which has been in a location where a methane concentration greater than 1.25% has been present in the general body of the air shall be flushed out with an inert gas before power is restored to them. Only when a district/area has been made safe by an official shall power be restored to that district/area, via the intake airways.

Exceptions to the rule of restoring power only via intake airways apply where equipment necessary for safety and/or the maintenance of the mine needs to be powered at the earliest opportunity (e.g. pumps).

- ix) Where power is supplied to such equipment in return airways before the whole mine has been inspected and made safe from flammable gas, an official shall continuously monitor the percentage of methane present with an approved instrument throughout the operation. If the general body methane content rises above 1.25%, the power must be isolated.
- x) Priority shall be given to re-establishing or maintaining essential services.
- xi) Adequate communication facilities shall be maintained throughout the operation.
- xii) Where a booster fan has been re-started, an attendant and official shall monitor the condition of the fan and atmosphere throughout the operation. A convenient air short-circuit shall be established whereby air may be deliberately slipped if necessary to limit the percentage of methane in the air reaching the booster fan to 1.25%. At no time must a booster be allowed to pass air containing more than 1% methane by volume.
- xiii) The inspection of headings and the re-starting of auxiliary fans shall normally be left to the end of the operation, and shall be carried out in accordance with the auxiliary ventilation rules for the mine.

W. J. King
3rd March 1987.