



COMMONWEALTH OF VIRGINIA

Department of Mines, Minerals and Energy

Division of Mines

304 Mountain Empire Road

Post Office Drawer 900

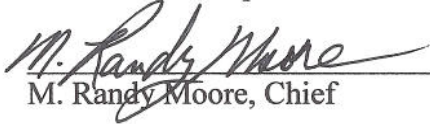
Big Stone Gap, Virginia 24219-0900

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www.dmme.virginia.gov

MEMORANDUM DM-11-05

TO: All Coal Mine Operators

FROM: 
M. Randy Moore, Chief

SUBJECT: ***Roof Bolter Mounted Cooling Fans***

DATE: October 28, 2011

Roof bolter mounted cooling fans are universally approved for use as an auxiliary fan in Virginia's underground coal mines provided they are utilized solely for the purpose for which they were designed – cooling of the roof bolter operator. During the course of regular mine inspections, Division of Mines (DM) personnel will monitor the utilization of roof bolter mounted cooling fans. If such observations reveal that cooling fans are being used for purposes other than cooling of the roof bolter operator or that significant recirculation of the air current is occurring, a violation of the appropriate section of the *Coal Mine Safety Laws of Virginia* (CMSL) may be issued and the mine may be required to submit a plan to use auxiliary fans in accordance with §45.1-161.218.A of the CMSL.

Mines that use roof bolter mounted cooling fans will be required to submit a plan to use auxiliary fans if, during field observations, DM personnel find that cooling fans are being utilized for controlling methane or dust. DM field personnel will be monitoring the direction the fans are oriented; the location of the line curtains used to ventilate the working place; and volume of airflow provided to the working face. You are also reminded that §45.161.219.B of the CMSL requires that “the air current at working faces shall, under all conditions, have a sufficient volume and velocity to readily dilute and carry away smoke from blasting and any flammable or harmful gases and dust.” In addition, §45.1-161.226.D states that “accumulations of methane shall be moved only by means of properly installed line brattice, or other approved method.”

DM field personnel will also be monitoring working faces where roof drills with cooling fans are being utilized to ensure that recirculation of the air current does not occur to the extent that could be hazardous to the miners. Significant recirculation of the air current can lead to a buildup of methane gas or increased suspension of dust. CMSL's §45.1-161.226.A requires that

“substantially constructed line brattice shall be used from the last open crosscut of an entry or room when necessary to provide adequate ventilation for the miners and to remove gases.” To prevent recirculation, adequate airflow must be provided to the working face. Should DM field personnel observe that significant recirculation is occurring in working faces where the roof bolter mounted cooling fans are used, a violation of the appropriate section of the CMSL may be issued and the mine may be required to submit an action plan to abate the violation if a pattern of violation becomes evident.

Roof bolter mounted cooling fans, when utilized properly, will significantly improve the working conditions of the roof bolter operator. However, mine management must take the appropriate steps to ensure that there is minimal recirculation of the air current and that methane and dust are not controlled by use of the cooling fans.

If you have any questions regarding these regulations, please contact your DM Inspector or you can contact me at (276) 523-8226 or Marshall.Moore@dmme.virginia.gov.

Thank you.

djm