
From: Pierre Mousset-Jones <mousset@unr.edu>
Sent: Thursday, June 23, 2016 2:23 PM
To: zzMSHA-Standards - Comments-4672 Fed Reg Group
Subject: RIN 1219-AB86 or Docket No. MSHA-2012-0031 Comment
Attachments: DPM continuous sampler.pdf

D. Monitoring MNM Miners' Exposures to DPM

26. MSHA requests information on advances in sampling and analytical technology and other methods for measuring a MNM miner's DPM exposure that may allow for a reduced exposure limit.

In response to this request:

Both the 5040 method and the NIOSH continuous DPM sampler are filter based which have inherent problems with accuracy and, in particular, maintainability with the continuous sampler as the filter gets progressively loaded with DPM. A proven maintenance free continuous DPM sampler based on acoustic and laser technology has been available for some time and has been used extensively for DPM and carbon particulate measurements on the surface in cities, around major forest fires, and for diesel vehicle emission measurements. This technology has been tested in an underground mine and the results can be seen in the attached paper. It is suggested that more use be made of this DPM sampling technology in both Coal and Metal/Non-metal underground mines and further development of the instrument be undertaken for a smaller, more robust, and more portable unit to be used by mine supervisors and miners.

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