
From: Gangal, Mahe
Sent: May 30, 2006 22:55
To: equivalencycomment@dol.gov
Subject: RIN 1219-AB43

Subject: Equivalency Evaluations of the U.S. Environmental Protection Agency's Nonroad Diesel Engine Standards

I do not believe that the EPA requirements in 40 CFR part 89, 'Control of Emissions From New and In-Use Nonroad Compression-Ignition Engines' can easily be modified to provide the same degree of protection as the existing MSHA requirements for Category B diesel engines. Here are my reasons:

1. Since mining diesel engines are for application in confined spaces, it is necessary and important that raw exhaust concentration at all engine operational range should be limited to protect the exposure of workers. This protection is clearly defined in the MSHA's existing rule, section 7.84. (b) (2) that there shall be no more than 0.25 percent of CO and no more than 0.20 percent NOx, with test procedure in section 7.87 (a), and acceptable performance in section 7.87 (b).

The above test is not part of the EPA's Nonroad Diesel Engine Standards, as these engines (EPA) in general are for application on the surface with ample fresh air. For underground mine engines this determination of CO and NOx concentration becomes more important as we do not know the effect of new technologies on emissions at all engine operational range, as it not part of the EPA testing.

2. The section 7.84 (c) of the current MSHA's rule requires determination of ventilation rates using exhaust gas concentrations of CO, CO₂, NO, and NO₂ at 8-mode points. The EPA's standard do not even measure concentration of NO₂, while for most of the cases governing gaseous ventilation may not depend on NO₂, but one cannot be sure for future engines.

3. There are other diesel mining standards which provide same or more degree of protection as in the current MSHA's, but at this time they may be outside the this notice of the current intent for review.

I will be happy to provide further information if required.

Mahe Gangal, Ph.D.

Head, Diesel Emissions Control
CANMET Mining and Mineral Sciences Laboratories / Natural Resources Canada / Government of Canada
555 Booth Street, BCC, Bldg. 9, Ottawa, Ontario K1A 0G1
mgangal@NRCan.gc.ca ; Phone: 1 (613) 996-6103; Facsimile: 1 (613) 996-2597
<http://www.diesel.nrcan.gc.ca/>

Chef, Contrôle des émissions de diesel
Laboratoires des mines et des sciences minéraux de CANMET / Ressources naturelles Canada / Gouvernement du Canada
555, rue Booth, CBC, édifice 9, Ottawa (Ontario) K1A 0G1
mgangal@RNCAN.gc.ca ; Téléphone: 1 (613) 996-6103; Télécopieur: 1 (613) 996-2597
<http://www.diesel.nrcan.gc.ca/>