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STATE OF ILLINOIS
Pollution Control Board
For E. Blagojevich, Governor
Joel Brunsvold, Director



Illinois Department of Natural Resources

One Natural Resources Way • Springfield, Illinois 62702-1271
<http://dnr.state.il.us>

May 26, 2005

PC#14

Dorothy Gunn, Clerk
Illinois Pollution Control Board
100 W. Randolph, Suite 11-500
Chicago, IL 60601

Re: Proposed New and Updated Rules for Measurement and Numerical Sound Emission Standards/Amendments to 35 Ill. Adm. Code 901 and 910/Docket R03-9
Comments

Dear Ms. Gunn:

The following comments are submitted by the Illinois Department of Natural Resources, Office of Mines and Minerals, Mine Safety and Training Division in reference to the above referenced amendments.

Blasting operations at all surface aggregate and coal mines are regulated by the Illinois Department of Natural Resources (IDNR), Office of Mines and Minerals, Mine Safety and Training Division. IDNR's comprehensive blasting regulations help prevent personal injury and property damage through the use of the conservative limits of one inch per second ground vibration and 133 dB maximum air over pressure. These limits are nationally recognized and accepted industry and regulatory standards. The IDNR determines regulatory compliance by routinely inspecting and monitoring blasting at all of the State's 172 active aggregate and coal blasting sites. IDNR's blasting regulations are administered by a staff of 13 people with over 100 years of combined explosives related experience. Field inspectors trained in the technical elements of seismology regularly monitor blasting induced ground vibration and air over pressure with state of the art seismographs. The Department currently maintains an inventory of 30 such seismographs.

The Department respectfully submits the following comments for your consideration:

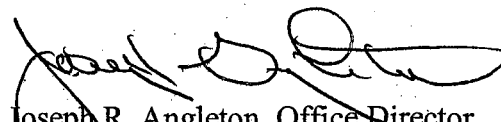
- 1.) Section 901.109(a) amends the Receiving Class A Land limit from 109 to 107 and the Receiving Class B Land limit from 114 to 112. The Office of Surface Mining (OSM), the federal surface mining agency with oversight authority over the IDNR's coal regulatory program, and IDNR's aggregate blasting regulations correctly allow 105dB C-weighted as the equivalent to 133dB. The proposed limits are inconsistent with and less restrictive than the previously stated 105dB C-weighted /133 dB equivalency.

- 2.) Section 901.109(c) introduces a 10dB reduction to the 133dB airblast limit for blasting prior to 7:00 A.M. It should be noted that decibels are a logarithmic scale and reducing the limit from 133dB to 123 dB is a 70% limit reduction. It should also be noted that IDNR regulations limit routine blasting conducted at surface coal and aggregate operations to the period between sunrise and sunset except in documented emergency situations. IDNR suggests that this section be amended to solely reflect the established IDNR sunrise to sunset blasting restrictions.
- 3.) The regulatory limits referenced in the proposed amendment appear to address monitoring and limits at the "property line." IDNR's regulatory performance standards apply to limits at the nearest protected structure. A protected structure as defined under 62 Illinois Admin. Code 300.210, is any dwelling, public building, school, church or commercial or institutional building that is not owned by the operator or subject to a waiver granted to the operator from the Department's airblast and ground vibration requirements. It is unclear what the intent of the proposed establishment of the proposed limits at the property line will accomplish as it pertains to controlling adverse affects from mining.
- 4.) Monitoring methods for the limits proposed in Section 901.109 are not referenced in Section 910.
- 5.) The monitoring methods described in Section 910 do not apply to IDNR's established and required monitoring procedures. "Highly Impulsive Sound from Blasting" is monitored with the use of a blasting seismograph specifically designed for this purpose utilizing a flat response, sound pressure level microphone and recording device.

It should be noted that air over-pressure resulting from primary airblast is characterized as an impulsive noise primarily in the infrasonic range. Most of the energy is inaudible because its frequency content is below the range of human hearing (20Hz to 20kHz). Consequently, the proposed rules are trying to fit air over-pressure (airblast) within the scope of intrusive noise and sound regulations when in fact they are two totally separate issues.

IDNR respectfully suggests that the surface aggregate and coal blasting provisions of these statutes be deferred to our agency for regulation. Such deferment would help prevent inconsistencies and redundancies between regulatory authorities with distinct and separate regulatory roles.

Sincerely,



Joseph R. Angleton, Office Director
Office of Mines and Minerals

cc: N.Banach
N.Williams
M.Falter
J.Hafliger
Service List