

ILLINOIS POLLUTION CONTROL BOARD  
March 19, 1982

IN THE MATTER OF: )  
 )  
AMENDMENTS TO CHAPTER 8: ) R76-14  
NOISE REGULATIONS, )  
RULES 101, 205, 206, AND 209 )

Proposed Rule. First Notice.

ORDER OF THE BOARD (by I. Goodman):

For reasons set out in the accompanying Opinion, the Board incorporates the following language into its Chapter 8: Noise Pollution.

RULE 101: DEFINITIONS

A-Weighted Sound Level: dB(A), in decibels, a frequency weighted sound pressure level, determined by the use of the metering characteristics and A-weighted network specified in ANSI S1.4 - 1971 (R. 1976) "Specification for Sound Level Meters" and the latest revisions thereof.

~~dB(A). Sound-level-in-decibels-determined-by-the-A-weighting of-a-sound-level-meter.~~ See "A-Weighted Sound Level".

Fast Dynamic Characteristic: The dynamic characteristic specified as fast in ANSI S1.4-1971 (R. 1976) "Specification for Sound Level Meters" and the latest revision thereof.

Leq: Equivalent continuous sound pressure level in decibels: ten times the logarithm to the base ten of the ratio of a time-mean-square sound pressure to the square of reference sound pressure. The reference pressure is 20 micronewtons per square meter.

RULE ~~205~~ ~~206~~: IMPULSIVE SOUND

Except as elsewhere in this Part 2 provided, no person shall cause or allow the emission of impulsive sound from any property-line-noise-source located on any Class A, B, or C land to any receiving Class A or B or C land which exceeds the allowable ~~dB(A)~~ A-weighted sound levels, measured with fast dynamic characteristic, specified in Table 5, when measured at any point within such receiving Class A or B or C land, provided, however, that no measurement of sound levels shall be made less than 25 feet from such property-line-noise-source.

TABLE 5

Classification of land on which Property-Line- Noise-Source is Located	Allowable $\Delta B(A)$ A-weighted Sound Levels in Decibels of Impulsive Sound Emitted to Receiving Class A or B Land			
	Class-C-Land	Class B Land	Class A Land Daytime      Nighttime	
Class A Land	57	50	50	45
Class B Land	57	57	50	45
Class C Land	65	61	56	46

RULE 206: IMPACT FORGING OPERATIONS

(a) For purposes of this rule only the following are applicable:

- (1) Daytime hours shall mean any continuous 16 hour period between 6:00 a.m. and 11:00 p.m. local time; and
- (2) Nighttime hours shall mean those 8 hours between 10:00 p.m. and 7:00 a.m. which are not part of the 16 continuous Daytime hours.
- (3) The reference time for Leq, as defined in Rule 101, is one hour.
- (4) New Impacting Forging Operation is that property-line-noise source comprised of impact forging operation on which construction began after the effective date of this rule.
- (5) Existing Impact Forging Operation is that property-line-noise source comprised of impact forging operation which were in existence on the effective date of this rule.

(b) Emission Limitations for New Impact Forging Operation

No impact forging operation shall cause or allow the emission of impulsive sound to any receiving Class A or B land which exceeds the allowable sound levels specified in Table 6 when measured at any point within such receiving land, provided however, that no measurement of sound levels shall be made less than 25 feet from such new impact forging operation's property-line.

TABLE 6

Allowable Impulsive Sound Levels Emitted  
To Class A or B Land From New  
Impact Forging Operation

<u>Class B Land</u>	<u>Class A Land</u>	
	<u>Daytime</u>	<u>Nighttime</u>
59.5 Leq	53.5 Leq	48.5 Leq

(c) Limitations for Existing Impact Forging Operation

No existing impact forging operation shall cause or allow the emission of impulsive sound to any receiving Class A or B land which exceeds the allowable sound levels specified in Table 7 when measured at any point within such receiving land, provided however, that no measurement of sound levels shall be made less than 25 feet from such existing impact forging operation's property-line, unless such forging operation is granted a permanent site-specific allowable operational level pursuant to Rule 206(d).

TABLE 7

Allowable Impulsive Sound Levels Emitted  
To Class A or B Land From Existing  
Impact Forging Operation

<u>Class B Land</u>	<u>Class A Land</u>	
	<u>Daytime</u>	<u>Nighttime</u>
64.5 Leq	58.5 Leq	53.5 Leq

(d) Site Specific Allowable Operational Level for Existing Impact Forging Operation

(1) An existing impact forging which does not comply with Rule 206(c) may seek a permanent site specific allowable operational level from the Board. A permanent site specific operational level is that level of operation allowed Petitioner after review and approval by the Board and after implementation of abated measures, if any, approved by the Board.

(2) Any existing impact forging operation seeking a permanent site specific operational level must submit as its Petition the following:

(A) The location of the Petitioner, a description of the surrounding community, and a map locating the Petitioner within the community;

- (B) A description of the Petitioner's operations, the number and size of the Petitioner's forging hammers, the current hours of hammer operation, the approximate number of forgings manufactured during each of the three prior calendar years and the approximate number of hammer blows used to manufacture the forgings;
- (C) A description of any existing sound abatement measure;
- (D) The sound levels in excess of those permitted by Table 7 emitted by the petitioner into the community, in 5 decibel increments measured in Leq, shown on the map of the community;
- (E) The number of residences exposed to sound levels in excess of those permitted by Table 7;
- (F) A description of other significant sources of noise (mobile and stationary) and their location shown on the map of the community;
- (G) A description of the proposed operational level and proposed physical abatement measures, if any, a schedule for their implementation and their costs;
- (H) The predicted improvement in community sound levels as a result of implementation of the proposed abatement measures.
- (I) A description of the economic and technical considerations which justify the permanent site specific allowable operational level sought by Petitioner; and
- (3) An existing impact forging operation seeking a permanent site specific operational level shall prepare and file its Petition with the Board and Agency as applicable no later than fifteen months after the effective date of this Rule.
- (4) The Agency shall prepare a written evaluation regarding each Petition seeking a permanent site specific operational level and shall file said evaluation within ninety (90) days following receipt of the Petition with both the Board and the Petitioner.
- (e) Land Use Classifications Preserved

The land use classifications in effect within a one-mile radius of an existing impact forging operation on the effective date of this Rule shall remain the applicable land

use classification for enforcement of these Rules against an existing forging operation and any future modification thereof, regardless of actual subsequent changes in land use unless such actual changes would impose less restrictive limitations on the impact forging operations.

**RULE 208: EXCEPTIONS**

- (h) Rule ~~206~~ 205 shall not apply to impulsive sound produced by explosive blasting activities conducted on any Class C land used as specified by SLUCM codes 852 and 854, but such operations shall be governed by Rule 210.

**RULE 209: COMPLIANCE DATES FOR PART 2**

- (d) Except as provided in Rules 209(f), 209(g) and 209(h), every owner or operator of an existing property-line-source required to comply with Rule ~~206~~ 205 of this Chapter shall comply with the standards and limitations of Part 2 of this Chapter on and after eighteen months from the effective date of this Chapter.
- (g) Every owner or operator of Class C land now or hereafter used as specified by SLUCM Code 4112 shall have three years from the effective date of this Chapter to bring the sound from railroad car coupling in compliance with Rule ~~206~~ 205.

~~(h) -- Every owner or operator of Class C land on which forging operations are now conducted shall have three years from the effective date of this Chapter to bring sound from the impact of forging hammers into full compliance with the limits specified in Rule 206 for emissions to any receiving land.~~

- (h) Existing impact forging operations as defined in Rule 206 which do not seek permanent site specific allowable operational levels shall comply with Rule 206 within fifteen months of the effective date of these Rules. Those seeking permanent site specific allowable operational levels pursuant to Rule 206(d) shall comply as of the effective date of the site specific rule granted or denied.

**RULE 210: IMPULSIVE SOUND FROM EXPLOSIVE BLASTING**

- (a) During the daytime hours, after sunrise and before sunset, no person shall cause or allow any explosive blasting conducted on any Class C land used as specified by SLUCM codes 852 and 854 so as to allow the emission of sound to any receiving Class A or B land which exceeds the allowable outdoor C-weighted sound levels, measured with the slow dynamic characteristic, specified in Table 6 8, when measured at any point, of reasonable interference with the use of such receiving Class A or B land.

TABLE 68

Allowable Outdoor C-Weighted Sound  
Levels in Decibels of Explosive Blasting Sounds  
Emitted to Receiving Class A or B Land from Any  
Class C Land Used as Specified by SLUCM Code 852 or 854

Receiving Class A Land

109

Receiving Class B Land

114

Compliance with outdoor peak sound pressure level limits  
in Table 7 8 shall constitute prima facie level limits of  
Rule 210 when measured on such receiving Class A or B land.

TABLE 78

Equivalent Maximum  
Sound Pressure Level (Peak) Limits in Decibels

Lower Frequency Limit of  
Measuring System for Flat  
Response, a Variation from  
Linear Response of  $\pm$  3dB

(Hz)

$\leq$  0.1

$\leq$  2.0 but  $>$  0.1

$\leq$  6.0 but  $>$  2.0

Receiving  
Class A Land

(dB)

135

132

130

Receiving  
Class B Land

(dB)

140

137

135

The Clerk is directed to send this to First Notice pursuant  
to the Illinois Administrative Procedures Act (Ill. Rev. Stat.  
Ch. 127, §1001-1021, 1979 as amended).

IT IS SO ORDERED.

Board Chairman J. Dumelle concurred.

I, Christan L. Moffett, Clerk of the Illinois Pollution  
Control Board, hereby certify that the above Order was adopted on  
the 19<sup>th</sup> day of March, 1982 by a vote of 4-0.



Christan L. Moffett, Clerk  
Illinois Pollution Control Board