

ILLINOIS POLLUTION CONTROL BOARD  
May 2, 1985

IN THE MATTER OF: )  
 )  
CLIFFORD-JACOBS FORGING COMPANY )  
PETITION FOR A SITE-SPECIFIC ) R83-25  
OPERATIONAL LEVEL PURSUANT TO 35 )  
ILL. ADM. CODE 901.105(d) )  
 )

ADOPTED RULE. FINAL OPINION AND ORDER.

OPINION AND ORDER OF THE BOARD (by J. Marlin):

In its Proposed Opinion and Order of December 6, 1984, the Board proposed to adopt a new rule, 35 Ill. Adm. Code 901.119. First notice of this proposal was published at 9 Ill. Reg. 29 on January 4, 1985. The first notice comment period expired on February 19, 1985. The Administrative Code Unit submitted a comment on January 24, 1985 concerning Illinois Register first notice format. On January 3, 1985, Engineering Dynamics International of St. Louis, Missouri submitted a comment. No other comments have been received.

By Order of the Board dated February 20, 1985, the proposed rule was submitted to the Joint Committee on Administrative Rules (JCAR). Second notice review commenced on February 28, 1985. JCAR issued a Certification of No Objection on April 16, 1985 which ended the second notice period.

This rulemaking was initiated on November 10, 1983 when Clifford-Jacobs Forging Company (Clifford-Jacobs) petitioned for a site-specific operational level for its forging shop as an alternative to compliance with the noise limits contained in 35 Ill. Adm. Code 901.105 (Old Rule 206 of Chapter 8). The Illinois Environmental Protection Agency (Agency) filed its response on January 11, 1984. A public hearing was held in Peoria, Illinois on March 12, 1984. No members of the public or press attended. This hearing was scheduled with three other similar forging noise cases involving central Illinois shops in order to conserve the time and funds of all the parties involved. Additional economic information requested by the Illinois Department of Energy and Natural Resources (DENR) was submitted on July 29, 1984. A negative declaration was filed by the DENR on September 28, 1984. The Economic and Technical Advisory Committee concurred on November 1, 1984.

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\*The Board acknowledges the work of Kevin F. Duerinck, hearing officer and administrative assistant for this rulemaking.

Section 901.105(d) allows an existing forging shop to petition the Board for a site-specific operational plan which will limit noise emissions from the shop. Petitioner must demonstrate that it is technically and economically infeasible for its shop to meet the numerical limits. Petitioner must also propose measures to reduce impulsive noise where possible and assess the consequential health and welfare impacts on the surrounding community.

Clifford-Jacobs is located at North Market Street, Champaign, Illinois. To the north is farmland, to the east is a railroad switching yard, to the south is a commercial soybean processing mill, to the southwest are residences, and to the west is farmland.

The main building, which houses the die and forge shops was built in 1923. The forge shop is marked as #1B on Exhibit B to the petition. It is 300 feet long, 60 feet wide and 27 feet high to the roof line. The forge shop contains fourteen Erie steam drop forging hammers weighing 1,500 to 25,000 pounds apiece with twenty-one slot furnaces and one induction heating unit. The heat from the furnaces, 2350°F, raises the temperature of the shop to 120° to 130°F. Side grade-level openings and a big double door draw fresh air into the building and over fifty-six roof ventilators draw warm air out.

The forging hammers currently operate from 7:00 a.m. to 3:00 p.m. five days per week. Historically, during normal economic conditions, the hammers have been operated two shifts between 6:00 a.m. and 11:00 p.m., five days per week, with occasional work on Saturday. The current work force of 140 employees is down from 250 employees during normal economic conditions. Clifford-Jacobs requests that it be allowed to operate its fourteen hammers six days per week, from 6:00 a.m. until 11:00 p.m. Monday through Saturday (Petition at 9).

Production at Clifford-Jacobs has decreased from 1980 levels as is shown by the table below. This decline resulted in less hammer blows and less impulsive noise. The production decline is expected to stabilize in 1983 (Petition at 5).

	<u>Total forgings on hammers</u>	<u>No. of blows/yr.</u>	<u>Tonnage of all forgings</u>
1980	670,000	9,447,000	12,838
1981	580,000	8,178,000	12,536
1982	286,000	4,032,600	6,556

Permissible impulsive sound levels for existing forge shops are found at 35 Ill. Adm. Code 901.105. The impulsive sound level emitted to residences (Class A land) cannot exceed 58.5 Leq

during the day or 53.5 Leq at night. As to commercial establishments (Class B), the level cannot exceed 64.5 Leq. Based upon actual noise level measurements, Exhibit A to the petition shows that the maximum noise level is 65 Leq. Approximately 66 houses potentially could be exposed to sound levels in excess of 53.5 Leq while thirty two houses could be exposed to sound levels in excess of 58.5 Leq. The noise level will vary depending on wind velocity and direction. Any noise violations at night would end as Clifford-Jacobs suspended operations at 11:00 p.m. Clifford-Jacobs has not received any noise complaints.

Various measures have been proposed to reduce the sound levels at Clifford-Jacobs. The installation of barriers is ineffective. Enclosing the forge shop in a new warehouse would cost over one million dollars and there is doubt whether this would be effective. The addition of more fans and silencers to the present roof is infeasible because the roof will not accept the added weight (Exh. D to Petition).

Clifford-Jacobs has tried to control excessive noise at its forge shop. A new building was built between the forge shop and the Class A residences. This did not effectively reduce the noise level. If forced to implement these costly measurements, the facility would close.

The Board proposes granting Clifford-Jacobs' site-specific operational level for fourteen hammers, two shifts Monday through Saturday. Clifford-Jacobs does not foresee any adverse health effects from 65 Leq (R. 48). The Agency states that there would be no danger of hearing loss to area residents (Agency Response at 4).

Although no specific numerical noise level limitations are being imposed, it is assumed that noise levels will approximate those testified to by Clifford-Jacobs and its witnesses. Clifford-Jacobs should make efforts to lessen noise levels in the future as equipment is replaced and new technology for noise suppression becomes available.

The following operational plan as set out below will be incorporated into 35 Ill. Adm. Code 901.119. Clifford-Jacobs will be required to comply upon the filing of the rule with the Secretary of State.

ORDER

The Board hereby adopts the following rule, to be codified as 35 Ill. Adm. Code 901.119 and instructs the Clerk to file this rule with the Secretary of State:

TITLE 35: ENVIRONMENTAL PROTECTION  
 SUBTITLE H: NOISE  
 CHAPTER I: POLLUTION CONTROL BOARD

PART 901  
 SOUND EMISSION STANDARDS AND LIMITATIONS  
 FOR PROPERTY LINE-NOISE-SOURCES

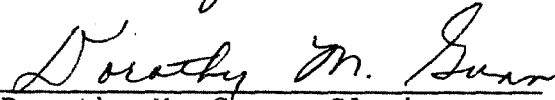
Section 901.119      Clifford-Jacobs Operational Level

Clifford-Jacobs Forging Company and future owners of the forging facility located at North Market Street, Champaign, Illinois, shall comply with the following site-specific operational level:

- a) Operate no more than fourteen hammers at any one time; and
- b) Operate its forging hammers only between the hours of 6:00 a.m. and 11:00 p.m. Monday through Saturday.

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 2nd day of May, 1985 by a vote of 5-0.

  
 Dorothy M. Gunn, Clerk  
 Illinois Pollution Control Board