

ILLINOIS POLLUTION CONTROL BOARD
July 9, 1981

KEARNEY DIVISION, a Division of)
Kearney-National, Inc., a)
Delaware Corporation,)
)
Petitioner,)
)
v.) PCB 81-25
)
ILLINOIS ENVIRONMENTAL PROTECTION)
AGENCY,)
)
Respondent.)

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

On February 18, 1981 Kearney Division filed a petition for variance from Rule 206 of Chapter 8: Noise Pollution as it relates to maximum impulsive sound received at residences from a class 'B' land source. An amended petition was filed on April 15, 1981 curing certain procedural defects, and the Illinois Environmental Protection Agency (Agency) filed a recommendation to grant variance subject to certain conditions on June 8, 1981. That recommendation was accompanied by a motion to file instant, which motion, being unopposed, is hereby granted.

Kearney operates a research and testing laboratory at 8600 Joliet Road in McCook, Illinois. High voltage switchgear, which Kearney manufactures primarily for the distribution of electrical power, are proof tested at the McCook laboratory. The laboratory, which is the largest in Illinois in terms of maximum available power for short circuit testing, employs 6 people with a 1980 payroll of \$127,000. In addition to testing its own products, Kearney contracts testing for outside clients, both domestic and foreign.

The laboratory is located on 4½ acres of land in a highly industrialized area which includes the UOP Process Division, Vulcan Quarry, Reynolds Metal, and Electromotive Division of General Motors. The nearest residential property lies north of the laboratory about 800 feet.

The testing which results in possible violations of Rule 206 is done on fuse cutouts which are used to protect electrical distribution lines by opening the circuit and removing the fault from the line. This allows sectionalizing of electrical outages. When tested at high power levels, the interruption, in the form of an electrical arc, instantly heats the air surrounding the fuse element and generates a sharp sound similar to thunder. Most tests are run at medium and low amperage ranges

and do not cause noise violations. During a three-month period in 1978, high level tests were run on only 3 days in October, 5 days in November and 3 in December. A total of 79 such tests were run spaced never less than ten minutes apart. An average of approximately 40 such tests are run each month.

Kearney built an acoustical enclosure for the lab in 1980. \$3,500 was spent on engineering and architectural fees, about \$5,500 was spent on relocating bus work, electrical wiring, exhaust systems and other equipment to accommodate the enclosure, and \$41,000 was spent on the enclosure itself.

Kearney's consultant has indicated that to meet the 50 db limitation of Rule 206, an experimental test chamber would have to be built at Kearney's expense and that additional construction in the form of a new acoustical chamber would cost at least \$90,000. Further, the consultant cannot even guarantee that the 50 db level could be met since no sound attenuation technique for an operating fuse cutout has been developed or tested.

The only other alternative would be to cease the high amperage testing which would force Kearney to test at outside laboratories. One such laboratory is the IREQ lab in Canada which charges \$3,500/day plus travel and other expenses.

Given the high ambient noise levels in the area around the Kearney lab due to truck and automobile noise (see Noise Survey Report; p. 4 of 4; Ex. 4; attachment 7 of the Agency Recommendation) and the relatively infrequent high amperage tests, the Board finds that a denial of variance would cause an arbitrary and unreasonable hardship. The Board notes that no expiration date is requested, but will grant the variance for a period of five years.

The Board is troubled by some adverse comments of residents and the McCook Environmental Board which oppose the variance. However, the prohibition on night-time testing and the acoustical treatment of the vent opening in the test chamber should reduce much of the problem. Further, the Board will order that Kearney continue to investigate and remain appraised of advances in the state of the art of noise control which may lead to cost-effective compliance for its laboratory.

This Opinion constitutes the Board's findings of fact and conclusions of law in this matter.

ORDER

Kearney Division is hereby granted a variance from the provisions of Rule 206 during daytime hours until July 9, 1986, but is denied a variance from the provisions of Rule 206 between the hours of 8:00 P.M. and 7:00 A.M. as to the operation of its research and testing laboratories at 8600 Joliet Road, McCook, Illinois. The variance is conditioned with the following requirements:

1. No testing between the hours of 8:00 P.M. and 7:00 A.M. is allowed;
2. Acoustical insulation must be installed and maintained in the vent opening on the roof of the acoustical cell chamber. Installation must be approved by the Agency;
3. The acoustical test chamber must be maintained so the maximum effect of the chamber is not degraded, and;
4. Fuse tests must be performed with all acoustical test cell openings closed to achieve maximum effect.
5. Within 45 days of the date of this Order Kearney shall execute and forward to the Illinois Environmental Protection Agency, Division of Water Pollution Control, Variance Unit, 2200 Churchill Road, Springfield, Illinois 62706 a Certificate of Acceptance and Agreement to be bound to all terms and conditions of this variance. This 45-day period shall be held in abeyance for any period this matter is being appealed. The form of the Certification shall be as follows:

CERTIFICATION

Kearney - National, Inc., a Delaware Corporation, is aware of and understands the Order of the Illinois Pollution Control Board in PCB 81-25 and hereby accepts said Order and agrees to be bound by all the terms and conditions thereof.

Kearney-National, Inc.

By _____
Authorized Agent

Title or Company Position

6. Kearney shall continue to investigate and remain appraised of advances in the state of the art which may lead to ultimate compliance, and shall submit a written report to the Agency every 12 months during the period of the variance regarding such investigation and advances, as well as any progress toward compliance.

IT IS SO ORDERED.

Mr. Anderson abstained.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 9th day of January, 1981 by a vote of 4-0.

Christan L. Moffett
Christan L. Moffett, Clerk
Illinois Pollution Control Board