

separate facilities at the east end of the site. The Agency has received complaints from residential neighbors of Atwood Grain ever since October of 1972. Both grain moving in the chutes and the use of the portable augers for loading have been found to emit noise in excess of the standards established for emissions from Class C to Class A land use in Rule 202 of the Noise Rules (Petitioner's Ex. 1,2).

The chutes from the headhouse were replaced in 1975 at a cost of approximately \$12,500 (Amended Petition at 3). These chutes have a useful life of five to eight years and are rotated periodically so as to extend their useful lives. Atwood states it cannot purchase a substitute for the present chutes so that the sound would be adequately attenuated. Atwood is presently installing experimental chutes, such as lined or wrapped chutes in connection with the removal and reinstallation of an elevator leg from the east end of the site to the center of the site. These chute attenuating installations are the first such installations in the State of Illinois. Atwood states that the sounds from these chutes are primarily during daylight hours, are only intermittent, and for the most part during the harvest season. Atwood would like to defer the expense of replacing the new chutes until replacement is necessary. This would allow time to monitor the newly installed experimental chutes, both from noise attenuating and a weathering basis. Atwood does not offer any estimate of what the cost of compliance would be; however, since the state of the art of noise control on grain elevators is not advanced there may be no reliable estimate.

The Agency does not agree that the present chutes cannot be replaced or the noise attenuated. The Agency believes that lagging could be used to lessen the noise emissions. The Agency estimates the cost for lagging at \$11,735. However, the Agency states that replacement or lagging may be presently economically unreasonable.

The portable augers also have been shown to violate Rule 202. Some of the storage facilities at Atwood are situated so that they cannot be loaded out except by portable equipment. Atwood is presently relocating an elevator leg to service the storage facilities in the center of the site. This should reduce the use of the portable auger equipment to load out operations on the outside of the facilities. Atwood states that the facilities are loaded out only once a year. The westernmost storage area is normally filled with beans and takes approximately six working days to load out. The bin at the center of the site and the two easternmost facilities are normally filled with corn and require approximately twenty working days to load out.

Atwood estimates that during load out operations the portable auger equipment is used approximately 10% of the time on the outside of the buildings. Atwood further states that the equipment in operation on the inside should have muffled emissions. The Agency does not accept this determination. The Agency states that the entry of the portable auger equipment into the storage facilities would not reduce the sound but magnify it directionally due to a megaphone effect. This would add to the emissions to the residences to the north of the elevator on North Wisconsin Street (See Agency Ex. 18). The Agency also points out that load out would also occur from time to time as grain is sold.

Atwood claims that at present the technology does not exist to safely or economically prevent the augers from emitting offensive sound. However Atwood is moving an elevator leg to service these facilities and should eliminate the problem with respect to the filling of the facility except for the work on the outside of the facility. The Agency believes that the augers could be brought into compliance, but because of the limited duration of their use and with certain conditions of use that it would be unreasonable to require Atwood to attempt to alter the augers.

In Atwood's Exhibit II, measurements of the electrically-driven portable augers indicate much lower sound emission levels than those of the gasoline engine driven portable auger. Due to this fact and the megaphone effect onto North Wisconsin Street from loading the center site inside the facility the Agency recommends the gasoline-driven auger should not be utilized to out load facilities at that location. The Agency also recommends an acoustical muffler should be purchased and installed on the gasoline engine for that auger.

Petitioner submits that denial of a variance would force Petitioner to cease business operations. The Board has often stated that denial of a variance petition is not tantamount to a shut down order; a denial merely subjects Petitioner to a possible enforcement action. PCB 74-356, 14 PCB 761. (1974).

Petitioner also submits that granting a variance to the elevator under present conditions would result in no perceptible harm to the public. The Agency disagrees. Residents of the area have been and will be unable to use their yards; and within residences they will experience interference with normal conversation, with listening to the radio, television or records, with rest and relaxation and with sleep. They will also experience

irritability and anxiety (Agency Exs. 9-15,23). The Agency estimates 36 residences would be so affected (Ex. 23).

Petitioner has already completed some noise abatement work. This includes the three dryer fans with enclosures and barriers; installed air intake silencers and frames for the two soybean units' aeration fans; and replacement of an axial vane aerating fan on the east end holding tank with a squirrel cage aeration fan. The total cost involved was \$18,713.03.

Petitioner currently has under contract the following sound attenuating projects:

1. Removal of present elevator leg and chutes at the east end of the site. New elevator legs and chutes will be installed for this area. Included in the work order is the requirement that the approximately 400 feet of 12 inch chutes be covered with acoustical material known as Cousti-composites 0550.
2. The present elevator leg at the east end of the site will be removed and reinstalled in the center of the site and will serve the three round storage bins and the flat storage building used for soybeans. The various chutes associated with this relocated leg will be covered with acoustical material.
3. In addition to the relocating of the elevator leg for the center complex, the horizontal interior auger serving the flat storage building will be equipped with a reversing switch which will permit total filling of this building without the use of an exterior portable auger.

Petitioner states that the work in connection with moving the elevator leg to the center of the site is to be done by June 30, 1976. No other completion dates are given. On completion of all the work the only chutes involved in the total site that will not have attenuating treatment will be those associated with the headhouse located on the west side of the elevator site. There will be no need to use the portable auger equipment to fill the storage facilities. The total time for use of the portable augers outside the large flat storage buildings is to be less than three working days of eight hours each, or a total of 20.8 hours per year (Amend. Pet. at 8).

The Agency recommends granting the variance subject to conditions. The Agency stated that as lagging of the chutes in question is expensive and that Atwood has and is expending

a considerable amount of money in a short period of time that postponement of such lagging is reasonable. It might be possible that Petitioner could use an alternative method of abatement such as rubber-lined chutes (Agency Ex. 23). The Agency further calculated that the grain chutes of the headhouse are not the predominate noise when considered in conjunction with the dryers at that location, and that with the dryers as presently barriered or not operating, the headhouse grain chutes may not exceed the limits of Rule 202. This would have to be measured during the drying season to verify this conclusion. If it is not correct the Agency recommends the chutes should be brought into compliance by July 31, 1977.

The Board finds that the facts that Petitioner and the Agency have presented warrant the granting of a variance from Rule 202 of the Noise Regulations. Petitioner has shown diligence in attempting to lessen the noise levels of the grain elevator. Petitioner has expended a large amount of money to attempt to attenuate the noise on a major portion of Petitioner's property. Although some irritation to neighboring residences may still exist, it should be substantially less than those they have experienced in the past.

The Board does grant a variance from Rule 202 of the Noise Regulations subject to the Agency's recommended conditions.

This Opinion constitutes the Board's findings of facts and conclusions of law.

ORDER

The Illinois Pollution Control Board hereby grants Atwood Grain and Supply Company a variance from Rule 202 of the Chapter 8: Noise Regulations, as to the headhouse grain chutes, up to and including July 31, 1977, the commencement of the 1977 harvest season; and further a variance from Rule 202 of the Noise Regulations as to the portable augers utilized for outloading Petitioner's storage facilities for a period up to and including March 1, 1981 subject to the following conditions:

- A. That except for sounds emitted by said headhouse grain chutes and said portable augers, sounds emitted by Petitioner shall at no time exceed the numerical limits of Rule 202.

- B. That Petitioner shall accomplish all the above mentioned noise attenuation work that Petitioner now has under contract by August 15, 1976.
- C. That Petitioner shall utilize the electric-driven portable auger for outloading the storage facilities in the vicinity of North Wisconsin Street, described in the Amended Petition for Variance as the center of the site and shall refrain from using the gasoline engine-driven portable auger for outloading these facilities; and that Petitioner shall refrain from using portable augers for other than outloading operations.
- D. That on or before September 1, 1976, Petitioner shall install on the gasoline engine-driven portable auger, acoustical mufflers equal to or better than those described in the Agency's recommendation (Exhibit 23).
- E. That Petitioner execute and forward to the Environmental Protection Agency, Division of Noise Pollution Control, Enforcement Section, 2200 Churchill Road, Springfield, Illinois 62706, and to the Pollution Control Board within twenty-eight days after the date of the Board Order herein a Certification of Acceptance and Agreement to be bound to all the terms and conditions of the Variance, the form of said Certification to be as follows:

CERTIFICATION

Atwood Grain and Supply Company, an Illinois Corporation, is aware of and understands the Order of the Illinois Pollution Control Board in PCB 76-62 and hereby accepts said Order and agrees to be bound by all of the terms and conditions thereof.

ATWOOD GRAIN AND SUPPLY COMPANY

By _____
Authorized Agent

Title or Company Position

(Date)

IT IS SO ORDERED.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order were adopted on the 22nd day of July, 1976 by a vote of 5-0.

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