

ILLINOIS POLLUTION CONTROL BOARD
November 19, 1992

CARL MADOUX, ALICE MADOUX,)
GLENN MOODY, AND MARGARET)
MOODY,)
)
Complainants,) PCB 90-148
) (Enforcement)
v.)
)
B & M STEEL SERVICE CENTER,)
INC.,)
)
Respondent.)

JAMES S. SINCLAIR, STOBBS & SINCLAIR APPEARED ON BEHALF OF THE COMPLAINANTS;

PAUL H. LAUBER, FARRELL & LONG, P.C. APPEARED ON BEHALF OF THE RESPONDENT.

OPINION AND ORDER OF THE BOARD (by G.T. Girard):

This matter initially came before the Board on the August 6, 1990, formal complaint filed by Carl Madoux, Alice Madoux, Glenn Moody, and Margaret Moody (collectively, complainants) against B & M Steel Service Center, Inc. (B & M Steel). The Board accepted this matter for hearing on August 30, 1990. The Board held a public hearing on June 30, 1991, at Alton. Members of the public attended and participated at hearing. The complainants filed their post-hearing brief on August 12, 1991. B & M Steel filed its response brief on September 5, 1991. The complainants filed a reply brief on September 18, 1991.

On May 21, 1992, the Board issued an interim opinion and order finding the respondent in violation of Section 24 of the Illinois Environmental Protection Act (the Act) (Ill. Rev. Stat. 1992, ch. 111 1/2, par. 1024). The Board's interim order directed the respondent to file a report detailing all measures that it believes would be effective to reduce the noise emissions at its facility and more specifically from the Pettibone forklifts and the pipe-striking-pipe. (Madoux et. al. v. B & M Steel Service Center, Inc., May 21, 1992, ___ PCB ___ hereinafter cited as "May 21 at".)

On September 1, 1992, the respondent filed its report with the Board and on September 30, 1992, the complainants filed their reply.¹ Respondent states that it "is willing to or already has

¹ The respondent's report will be cited as "Res. rep. at"; the respondent's document prepared by Engineering Dynamics International will be cited as "EDI rep. at"; the complainants'

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taken some measures to reduce identifiable sound emissions" from its property. (Res. rep. at 1.)

B & M indicated that in order to address the two major complaints of noise from the Pettibone forklift equipment and noise of pipe-on-pipe sound its consultant had developed two suggestions. The first remedy which B & M has already accomplished was to install "new, more efficiently designed mufflers" on the Pettibone forklifts. (Res. rep. at 2.) In addition, B & M installed engine side covers to muffle some of the sound other than exhaust. (Res. rep. at 2.) The total cost of these improvements "was approximately \$1816.00". (Res. rep. at 2.)

The second control option offered by B & M is to redesign the sorting rack facilities to control the distance the pipe must travel before hitting the sorting table or other pipe. (Res. rep. at 2.) B & M indicated that it should be able to design and implement these changes within 120 days of a determination by the Board. (Res. rep. at 2.) The cost estimate set forth by B & M is "approximately \$7980.00". (Res. rep. at 2.)

The complainants' reply maintains that the report filed by B & M's consultants is inadequate. Complainants cite to numerous alleged flaws in the study in support of their positions. Therefore, complainants have several reservations concerning the proposed remedies offered by B & M. Specifically, complainants ask for verification of the installation of the mufflers and side panels including specific information regarding the type and model of muffler installed. (Com. rep. at 7.) In addition, the complainants expressed concern as to whether or not the second remedy suggested by B & M will reduce noise. (Com. rep. at 7.)

Noise report

The noise evaluation report filed by B & M includes sound level data measured at various locations in and around the B & M facility, including measurements taken near the property line of one of the complainants. The report also includes a discussion of the control options for reducing noise emissions from B & M's operation.

The report includes long term noise measurement data made with Larson Davis 700-20 dosimeters and tape recordings made using a Nagra SJ recorder. Based on the analysis of noise measurement data, the report concludes that: (i) the pre-existing mufflers used on the Pettibones were adequate and that little, if any, benefit was gained by replacing the mufflers. (EDI rep. at 9); and (ii) the levels of pipe noise do not warrant labeling

reply will be cited as "Com. rep. at ".

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them a nuisance, particularly when compared with other common sounds and when considering the larger picture of the acoustical environment. (EDI rep. at 9.)

The noise control options discussed in B & M's report address both yard vehicles (Pettibones) and pipe handling operations. The report states that replacing mufflers and re-installing the side panels did not have significant effect on noise emissions. However, the report recommends that the mufflers on the Pettibones be maintained in good working order and replaced at the end of their normal life (EDI rep. at 10).

The EDI report includes a brief evaluation of three alternative options to reduce noise emissions from the pipe handling operation: (i) interior building acoustical treatment; (ii) acoustical barrier wall at north property line; and (iii) redesigning the pipe sorting rack facilities. The report states that insulating the interior walls of the building would result in reducing reverberant sound by 4 dB in mid and high frequencies. (EDI rep. at 10.) The report does not include the cost of applying such insulation; however, an estimate provided at hearing indicated the cost to be \$6960. (Tr. 161-64.)

The EDI report indicates that constructing a barrier wall at the north property line would reduce noise levels by 9 - 12 dBA at 50 feet from the property line depending on the height of the wall (10' or 20'). (EDI rep. at 10.) The report states that if a barrier wall is mandated, a smaller (lengthwise) wall constructed closer to the north door would be more effective. (EDI rep. at 11.) The cost of a concrete barrier wall has been estimated to be \$100/lin-ft for a 10' wall to \$300/lin-ft for a 20' barrier.

The third option discussed in the noise report involves the redesigning of the sorting rack facilities. The report states that using web slings to catch pipes restricts the energy from pipe contact and reduces the contact/impact sound generated by pipe handling. (EDI rep. at 11.) However, the report does not provide any estimates of the magnitude of sound reduction. The cost of redesigning the sorting rack has been estimated to be \$7980. (Res. rep. at 2.) This approach is one of the options which has been chosen by B & M to reduce the noise emissions from pipe handling operations.

Complainant's response

The response filed by the complainants take issue with several points in the report submitted by the respondent. Mainly, the complainants are concerned that the respondent has undertaken to retry the case before the Board instead of addressing the problems found by the Board in its interim order. The complainants specifically take issue with the numerical noise

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measurements included in the report to show that there is no noise pollution. (Com. rep. at 1). In addition, the complainants take issue with contents of the report dealing with the "Summary of Findings", the "Procedures for Investigation and Measurement", and "Noise Reduction Measures".

Specifically in the "Summary of Findings", the complainants state that the citation to the noise regulations is not correct since it deals with numerical standards. The complainants also note that the use of term "maximum" in describing the sound values is not explained clearly. (Com. rep. at 2.)

With regard to the "Procedures for Investigation and Measurement", the complainants maintain that the equipment used was dated and the data collected was not handled within industry standards for the measurement of noise. (Comp. rep. at 3.) In addition, the complainants point out that all sound measurements took place with the north door of the building open contrary to a suggestion made at hearing by Mr. Gregory Zak. (Comp. rep. at 3.)

Lastly, in reference to the "Noise reduction measures", the complainants note that the report does not include the specifications of the mufflers used on the Pettibones or discuss other measures that may be needed to reduce noise emissions from the Pettibones. Regarding the pipe handling operation, the complainants note that the report does not provide any estimates of the noise reduction that would be achieved by redesigning the pipe sorting rack facilities. (Com. rep. at 5.) In addition, the complainants point out that the report does not consider Mr. Zak's proposal of enclosing the pipe handling operation as an alternative method of noise reduction. (Com. rep. at 6.)

In conclusion, the complainants argue that the respondent's report does not adequately address the Board's order to evaluate alternative measures to reduce noise emissions. The complainants urge the Board not to accept the report and proposals set out in the response. The complainants maintain that the Board should require the respondent to undertake further studies to evaluate the noise reduction potential of redesigning the sorting rack facilities. The complainants also ask that the Board require additional information regarding the measures used to control noise emissions from the Pettibones.

DISCUSSION

As previously stated, the Board's interim order required B & M to prepare a report of alternative options that would be effective in reducing the noise emissions from its "Pettibone" front end loaders and from its pipe handling operations. However, although control measures for noise emissions were discussed, the noise report filed by B & M concentrates on trying

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to show that B & M's operation is not a source of noise pollution.

As previously explained in the interim order, numerical quantification of noise emissions is not controlling in determining violations pursuant to Section 24 of the Act and 35 Ill. Adm. Code 900.102. (May 21 order at 6.) Moreover, the Board has already found B & M in violation of Section 24 of the Act. Therefore, the Board will focus on the control measures discussed in the report. Regarding the complainants' concerns about the adequacy of the report to address the requirements of the Board's interim order, the Board finds that the report contains sufficient information to craft remedies to reduce noise pollution. The noise reduction measures are discussed below.

Noise reduction measures for yard vehicles

The Board notes that the respondent has already replaced mufflers and re-installed the side panels on the Pettibones. (Res. rep. at 1.) However, the noise report indicates that such measures did not result in significant numerical noise reduction. (EDI rep. at 4.) The complainants have stated that they believe that properly installed mufflers of type recommended by Mr. Zak (Nelson Model 400) would reduce the Pettibone noise. (Com. rep. at 5 & 7.) In this regard, the Board notes that the noise report does not include specifications of the new mufflers replaced on the Pettibones. However, B & M has stated that it obtained information as to the manufacturer, make and model of the muffler from Mr. Zak. (Res. rep. at 2.) In order to ensure that proper measures are undertaken by B & M to reduce noise emissions from Pettibones, the Board will direct B & M to install Nelson Model 400 mufflers on its Pettibones if they have not already done so.

Noise reduction measures for pipe handling operation

In order to reduce noise emissions from pipe handling operations, control measures must be implemented to reduce noise generated from activities within the building and the open yard. B & M performs cutting and bundling operations within the building, and inspection and sorting of pipes is performed outside the building in the yard. (Tr. at 176-81.)

The options discussed in the respondent's noise report for attenuating noise emissions from within the building include insulating the interior walls, and constructing a barrier wall close to the north door of the building. In addition to these measures, Mr Zak suggested that the noise emissions may be reduced by keeping the building doors closed during operation (Tr. 168.) B & M has not proposed to undertake any measures to reduce noise emissions generated from its activities within the building. However, since the record indicates that the activities within the building generate noise emissions, the

Board will direct the respondent to apply insulation to the building's interior walls and roof, and close all building doors during operation.

B & M has proposed to redesign its sorting rack facilities to reduce noise emissions from its pipe handling activities performed in its open yard. The other options discussed in the noise report include constructing a barrier wall along B & M's north property line. Another option suggested by Mr. Zak involves enclosing the inspection and sorting rack facilities within a insulated steel building. (Tr. at 161-64.) The Board notes that B & M will incur considerable cost if it is required to construct a building (\$23,766) or a 200-foot barrier wall (\$20,000.) On the other hand, the option proposed by B & M to redesign the sorting rack facilities would be less expensive (\$7980).

The proposed modification of sorting rack involves the reduction of the distance a pipe must travel before hitting the sorting table or another pipe and using web slings to catch the pipes. B & M has noted that this modification results in reduction of sound intensity by lessening the impact. (Res. rep. at 2.) B & M has not provided any estimate of noise reductions that would be achieved by redesigning the sorting rack. Since the impact of pipe on pipe contact is the primary cause of noise emissions from B & M's facility, the Board believes that measures to lessen the impact energy would result in significant noise reduction. In this regard, Mr. Zak has also noted in his testimony that modification of operating procedures is an effective method of noise reduction. (Tr. at 155-56 & 158.) Therefore, the Board will direct B & M to implement the modifications to its sorting rack facilities.

CONCLUSION

The Board finds that the report submitted by respondent's is sufficient to allow the Board to determine what remedy should be applied. The Board notes however, that there are several areas of deficiencies in the report as well as the report's attempt to declare the noise emissions a non-nuisance. That latter determination was already made in the Board's May 21, 1992, interim opinion and order.

The Board directs the respondent to undertake the following remedies: (i) install Nelson Model 400 mufflers on its Pettibones if it has not already done so; (ii) apply fiberglass insulation to the interior walls and roof of its existing building; (iii) close all doors leading in or out of its building during operation except for when entering or exiting; and (iv) redesign all sorting facilities as set forth in its response to the Board. Further, the Board directs the respondent to cease and desist from violation of Section 24 of the Act.

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ORDER

The respondent, B & M Steel, shall undertake all measures necessary to cease and desist from further violations of Section 24 of the Act. In addition respondent shall undertake the following measures to reduce noise emissions:

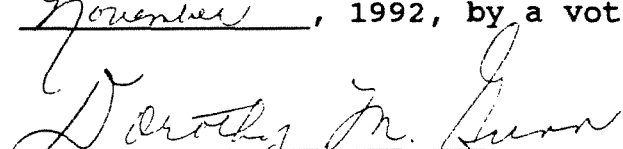
1. the respondent shall install Nelson Model 400 mufflers on its Pettibones if it has not already done so;
2. the respondent shall apply fiberglass insulation to the interior walls and roof of its existing building;
3. the respondent shall close all doors leading in or out of its building during operation except for when entering or exiting;
4. the respondent shall redesign all sorting facilities as set forth in its response to the Board;
5. the respondent shall cease and desist from further violation of Section 24 of the Act.

Section 41 of the Environmental Protection Act (Ill. Rev. Stat. 1991, ch. 111 1/2, par. 1041) provides for the appeal of final orders of the Board within 35 days. The Rules of the Supreme Court of Illinois establish filing requirements. (But see also 35 Ill. Adm. Code 101.246, Motions for Reconsideration, and Castenada v. Illinois Human Rights Commission (1989), 132 Ill.2d 304, 547 N.E.2d 437.)

Board Member R. C. Flemal dissents.

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 19th day of November, 1992, by a vote of 6-1.


 Dorothy M. Gunn, Clerk
 Illinois Pollution Control Board

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