ILLINOIS POLLUTION CONTROL BOARD
February 10, 1983

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,	)	
Complainant,	)	
v.	)	PCB 81-116
THE VICTORY MEMORIAL HOSPITAL ASSOCIATION, an Illinois Corporation,	)	
Respondent.	)	

JOSEPH DRAZEK AND DOUGLAS KARP, ASSISTANT ATTORNEYS GENERAL, APPEARED ON BEHALF OF THE PETITIONER;
THOMAS A. MORRIS, JR., BRYDGES, RISEBOROUGH, FRANK & MILLER, APPEARED ON BEHALF OF THE RESPONDENT.

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

This matter comes before the Board upon a July 15, 1981 complaint filed by the Illinois Environmental Protection Agency (Agency) alleging that the Victory Memorial Hospital Association (Hospital) operated its general hospital facility in such a manner as to violate Rules 102, 202 and 203 of Chapter 8: Noise Pollution. Hearings were held on May 4, 5, 6, 18 and 20, 1982 at which the parties and some members of the public appeared and testified. Briefs were filed in lieu of closing arguments.

The Hospital is a not-for-profit corporation (R. 953-954) which operates a full-service hospital located at 1324 North Sheridan Road in Waukegan. Along the Hospital's northern property line is a powerhouse which is separated from the main building and houses the electrical, cooling, heating, water, fire protection and medical gas equipment for the main building (R. 907). Associated with this powerhouse are two air-cooling towers referred to as the east and west towers (R.12). The east tower is located on the roof of the powerhouse and has been in operation since 1966. It is about 40 feet from the Hospital's northern property line (R.13 and 906). The west tower is located 12-13 feet from the northern property line slightly west of the powerhouse and was installed in 1978 (R.13 and 14).

Stanley Avenue is an east-west street located approximately 200 feet north of the Hospital's property line (R.249, 460 and 602-603). Along Stanley Avenue and directly north of the Hospital property is a residential area where most of the citizens who are affected by the noise and who testified at hearing reside (R.21).

The Agency alleges that the Hospital has emitted noise from its property which exceeds permissible daytime (Rule 202) and nighttime (Rule 203) noise limitations and which unreasonably interferes with the enjoyment of life and property of those residents along Stanley Avenue whose property is adjacent to the Hospital (Rule 102). The cause of the noise is alleged to be the powerhouse and the two associated air-cooling towers.

The Hospital contends that none of the numerical violations has been proven because the Agency has based its allegations on improper standards (due to improper land use classification), has incorrectly measured ambient values, has used other improper measurement techniques and outdated noise results. Further, the Hospital contends that a violation of Rule 202 or 203 must be shown as a prerequisite for enforcement under Rule 102 and that even if that is not true consideration of Section 33(c) factors are mandated which would preclude a finding of violation.

The Board first considers the Hospital's contention that the proper classification for the Hospital under the Standard Land Use Coding System is Class C under Code 4890 ("Other Utilities") so far as it relates to the noise violations alleged in this action rather than Class A under Code 6513 ("Medical and other health services"). The Board rejects this contention.

While not precluding the possibility of contiguous property under common ownership falling under separate classifications, such is clearly not the case here. The function of the powerhouse and the associated cooling towers is inextricably tied to the predominant use of the land (providing medical services) and is used for no other purpose; the powerhouse and towers are physically connected to the hospital by underground tunneling; and the alternative use suggested (as a utility) is stretched too far where, as here, the services provided are used at a single facility. Finally, the logical extension the Hospital's reasoning is that any Class A land is magically transformed into Class C land whenever an air conditioner is placed in a window on Class A property.

Since the Board concludes that the A to A limitations of Rules 202 and 203 are applicable to the Hospital, the Board must next consider whether proper measurement techniques were used in establishing violations of those standards.

The Hospital's major attack is on the Agency's determination of the ambient noise conditions. The Hospital argues that improper methodology was used and that most ambient measurements were taken at sites far removed from source measurement sites and in areas which did not accurately reflect ambient conditions.

The Agency uses GenRad Model 1933 noise meters which have a rapid response fluctuating needle and no paper readout (R.299, 303 and 745-756). The operator disregards peaks and notes the reading when the needle is steady, thus deliberately

disregarding extraneous readings (R.142-146 and 303-304). The Hospital contends that it is appropriate to include many of the noise sources which the Agency disregards through this technique, and has attempted to establish as much through the testimony of Mr. Lyle Yerges, the Hospital's noise consultant (R.657-659). He testified that sounds from traffic, a "power plant on the lakefront, plane over flights, insects, occasional bursts of wind and birds" should be included in the ambient, but that an "over flight or any sharp unusual level would have been excluded if it had occurred" when he was taking a measurement (R.658).

However, the Hospital fails to establish that this is not in fact what Kevin Moore, the person who conducted most of the relevant surveys, did. While Mr. Moore admitted that a bird flying overhead making noise may or may not be included, that he would not take readings near an operating air conditioner and that an audible airplane overflight would be disregarded as might an isolated car passing by, he includes such noises when they are "a steady part of the ambient" (R.143-146).

It is difficult to determine how the Agency's technique differs from that of Mr. Yerges. While it may be true that Mr. Moore disregarded somewhat more of the background sounds than Mr. Yerges would have, that is not the critical factor. As Mr. Moore explained, while the inclusion of more background sounds would result in a higher ambient reading, such a reading would not affect the number of apparent violations (R. 149). The reason is that the ambient measurement is used for comparative purposes. Thus, the critical factor is that the same noises be disregarded when taking the source measurements as are disregarded when taking the ambient measurements. The record gives no indication that noises were included when source measurements were taken (other than those emanating from the source) which were not included in determining the ambient.

The Hospital also argues that the ambient measurements should have been taken at the same sites as the source measurements because measurements can be affected by topography and location. Clearly, measurements taken at the same sites would be preferable, as Mr. Moore admitted (R. 141). However, he further pointed out that this is not true when the source cannot be turned off (R. 141), and that because the Hospital is "a big place and they were pretty busy" he decided not to contact the Hospital to turn off the source in this case. (R. 142-143). Rather, except for two cases, ambient readings were taken at other locations.

To establish that this resulted in improper noise survey results, the Hospital points out that most of the ambient measurements were taken in the front yard of the De Rose residence such that the home was between the measurement site and the Hospital (Agency sites 4 and 5, Ex. C-22). The Hospital contends that such sites fail to take into account the "funneling effect" of the ravine which runs west from Sheridan Road between the northern boundary of the Hospital's property and the residences along

Stanley Avenue and that they, therefore, fail to properly reflect contributing effects of traffic volume and noise.

The support for these propositions is mostly theoretical. Major Hearn, Jr., Director of Agency field operations, did testify that the ravine could act as a "funnel of sound...up toward Mrs. De Rose's lawn" (R. 887), but gave no indication of how much an effect it might have. In fact, the only witness to even speculate on the magnitude of the effect was the Hospital's own witness, Mr. Yerges, who testified that the ravine would have "no attributable effect" (R. 738 as corrected by the Agency). Further, Mr. Hearn testified that he had no reason to believe that ambient measurements taken in the De Rose's front yard would differ significantly from those taken in the backyard (R. 871).

In its closing brief the Hospital attempts to show that the ambient levels used for most of the noise surveys are lower than the ambient levels measured at the same site as the source readings (Resp. Brief, p. 46). It presents a table showing the ambient levels used for all daytime noise surveys where the ambient was measured at a site other than the site where the source was measured and compares them to the ambient measurements taken on June 12, 1979 where ambient and source measurements were taken at the same site. The table shows that in the 500 to 8000 Hertz octave bands 26 of 30 ambient measurements taken at alternate sites were lower than the June 12, 1979 ambient levels. If the June 12 ambient measurements were used for purposes of correction the source levels when corrected for the ambient would be lower. Further, the table shows that 18 of the 19 apparent violations were in those octave bands. Thus, given that Mr. Hearn testified that vehicle traffic noise is mostly in these same bands, the Hospital concludes that the ambient measurements taken at alternate sites did not accurately reflect traffic noise which would have affected source measurements.

However, the Hospital fails to note that a second survey taken on April 25, 1980 also measured the ambient levels at the same site where the source measurements were taken. If those ambient levels were used for comparison with the other surveys <u>each</u> ambient measurement in the 500 to 8000 Hertz octave bands taken at alternate sites would be <u>higher</u> (or equal to) the April 25, 1980 levels, thereby <u>increasing</u> the source levels when corrected for ambient. Thus, all apparent violations would appear at least as large as those presented by the Agency.

Furthermore, if the ambient measurements of June 12, 1979 and April 25, 1980 are averaged and compared with the average ambient values at alternate sites for the 500, 1000, 2000 and 4000 Hertz octave bands (which include all but one of the apparent violations), the largest discrepancy is about 1 dB. Alternate site measurements are 1.17 dB lower at 500 Hz., 0.67 dB higher at 1000 Hz and 0.5 dB higher at 2000 and 4000 Hz.

Based on the data and the testimony presented at hearing, the Board finds that the use of alternate sites for measurement of the ambient was appropriate in this case although greater effort to secure assistance from the Hospital to allow ambient measurements to be taken at the same sites as the source measurements would have been appropriate. It is preferable to do so to avoid arguments such as those presented by the Hospital.

The Hospital also argues that reflective surfaces and nearby small objects were not taken into consideration when source measurements were taken and that since ambient measurements were generally taken at other sites, doubt is cast upon the source measurements. The Hospital points out that sound measurements should not be taken within 25 feet of reflective surfaces nor within 5 feet of small objects (Resp. Ex. 2). However, the Hospital fails to present any evidence that measurements were taken in violation of these guidelines.

Measurements taken near reflective surfaces should be corrected downward (R. 131-140) and Mr. Moore did testify that there were some such objects in the area of Site No. 6. However, he also testified that he "didn't feel they would have any effect on the measurements" (R. 130). While Mr. Yerges testified in general that there were objects in the area could affect the source measurements, he did not attempt to quantify the effect (R. 713, 714 and 739). Given that nothing more than mere speculation was offered in this regard, the Board finds that neither reflective surfaces nor small objects in the area of source measurement have been shown to affect the Agency's data.

The next attack on the Agency's data is that noise testing procedures have not been revised "to reflect current engineering judgement and advances in noise measurement techniques" as required by Rule 103. The Hospital contends that graphic recorders, as used by Mr. Yerges, are more consistent with current engineering judgment (R. 627-628 and 636-637) and that A-Weighted readings are preferred to octave band analysis (R. 628). However, as the Agency points out, both methodologies were in existence and considered when the noise rules were promulgated, and Mr. Yerges acutally presented testimony against the proposed rules at that time (R. 719-720). Thus, the Board has fully considered this methodological question before and finds that nothing in this record warrants a reversal of its previous determination.

The Hospital's final attack on the Agency data is that most of the noise surveys were made prior to the Hospital's modifications to reduce noise levels, the last of which was completed prior to the 1981 cooling season. However, after the fact attempts at compliance do not constitute a defense to an enforcement action although they may be considered in mitigation of any penalty assessed. Therefore, the Board finds that the Agency's noise survey results are supported by the weight of the evidence.

The following table was complied from these surveys (Comp. Ex's. 8, 11-15 and 23-25) as corrected for abmient according to the graph contained in Complainant's exhibit 9. Site No. 1 is 33 feet south of the Southwest corner of the De Rose residence. Site No. 6 is 30 feet north of the Hospital's north property line fence in the backyard of the Machnich residence. Site No. 7 is 17 feet west and 70 feet south of the southwest corner of the garage in the backyard of the Bartels residence, and Site No. 9 is 37 feet west of the southwest corner of the residence at 1400 Sheridan. Octave band exceedances are expressed in dB's above the applicable A to A standards (Rule 202 or 203) and are rounded to the nearest half decibel. The asterisk indicates those surveys to which the nightime levels are applicable (Rule 203).

DATE	TIME SURVEY BEGAN	SITE NO.	OCTAVE BAND EXCEEDENCES (IN dB) 31.5	63	125	250	500	1000	2000	4000	8000
5/9/79	11 A.M.	1	--	--	--	--	--	2.5	1	0.5	2
7/12/79	11 A.M.	1	--	--	--	--	--	--	1	--	--
8/30/79	12 P.M.	1	--	--	--	--	1.5	2.5	3.5	2	--
5/22/80	10 P.M.*	1	--	--	2	4	11	9	11	7	--
8/18/80	1 P.M.	1	--	--	--	--	0.5	--	4	--	--
		6	--	--	--	1	2	2	7.5	12	12
		7	--	--	--	--	--	--	--	--	1
8/28/80	NOON	1	--	--	--	--	3	2.5	3	2	--
		6	--	--	--	1	1	1.5	5.5	9.5	7.5
		7	--	--	--	--	--	1	2.5	1	--
		9	--	--	--	--	2	3	4.5	1	1.5
8/29/80	6 A.M.*	1	--	--	1.5	3.5	11	10.5	12	18.5	14.5
		6	--	--	1.5	12.5	13	7.5	13	20.5	16.5
		7	--	--	1.5	--	6.5	7	8	16.5	12.5
		9	--	--	1.5	5	8.5	9	10	18.5	14.5
6/24/81	3 P.M.	1	--	--	--	--	--	1	4	4.5	2.5
		6	--	0.5	1.5	0.5	3.5	6.5	6.5	12.5	10
		7	--	--	--	--	--	1.5	3	3	--
		9	--	--	--	0.5	1.5	4.5	5	5	3
8/26/81	10 P.M.*	1	--	1.5	5	6	10.5	11	10.5	20.5	14.5
		6	6	13	13	12	16	18	14.5	25	21
		7	1	--	5	5	9	11	12	17	14.5

Despite this data the Hospital contends that Rule 203 violations cannot be found against it in that the July 10, 1980 Notice of Enforcement made no reference to nighttime violations and because Site No. 6 was an improper site for nighttime measurements.

At the time the Notice of Enforcement was served, there was no requirement that such notice be given prior to the filing of the complaint. Since the complaint in this matter fully informed the Hospital of allegations of violations of nighttime standards, this argument is without merit.

The argument that Site No. 6 was improperly used to establish a nighttime violation is also without merit. A person has a right to the enjoyment of the full extent of his property at anytime of day. Further, the testimony showed that Site No. 6 is a lawn area used by the Machnichs, that the grass was mown, that a pathway led to the location and that a barbecue grill was nearby (R. 127-128). This testimony established that the area could be used during nighttime hours, but even if that were not the case, Rule 203 applies to property line emissions, not to the enjoyment of property which is more properly considered with respect to Rule 102 violations and penalties.

Therefore, the Board finds that the Hospital violated Rules 202 and 203 at the times and places indicated in the table above.

The Board next considers whether a violation of Rule 102 has been proven. The Hospital contends that Section 24 of the Environmental Protection Act (Act) and Rule 102 merely require compliance with Board's emission standards and that Rules 202 and 203 simply define what constitutes a reasonably sound emission level. The Hospital than concludes that absent a finding of violation under Rules 202 or 203, no violation of Rule 102 may be found.

Since the Board has found violations of Rules 202 and 203, this argument loses its vitality. However, the Board notes that "Section 24 and Rule 102, when read in conjunction with Section 33(c), contain sufficient standards to afford...due process of law." Ferndale Heights v. IPCB, 358 N.E.2d 1228 (1976). See also Illinois Coal Operators Assoc. v. IPCB, 59 Ill.2d 305, 319 N.E.2d 782 (1974) and Shell Oil Co. v. IPCB, 37 Ill.App.3d 264, 364 N.E.2d 212 (1976). Thus, a Rule 102 violation can be found regardless of compliance or non-compliance with numerical standards. [1]

The Hospital is correct, however, that the Board must consider the Section 33(c) criteria before a violation of Rule 102 can be found. The Hospital contends that an analysis of those

1. To the extent that this is in conflict with Ferndale Heights v. IPCB, 358 N.E.2d 1228 (1976), that case is overruled.

criteria establish that the record supports the reasonableness of its position. The Board disagrees.

Several citizens from the residential area north of the Hospital testfied concerning the "character and degree of injury to, or interference with the protection of the health, general welfare and physical property of the people" [Section 33(c)(1)]. Mrs. De Rose lives directly north of the Hospital and is affected by noise from both the east and west towers (R. 182 and Comp. Ex 22). She testified that she can hear a noise that "sounds like you are passing an open factory door" from her second floor bedrooms, the back porch, the kitchen and her entire backyard (R. 189). The noise has made her irritable and nervous, has affected her sleep and has made it difficult to watch television (R. 190). She also testified that she can no longer sit and read on her back porch or in her backyard, nor does she any longer do art work on the patio or have picnics in the backyard as she used to (R. 191).

Mr. Machnich lives directly north of the west tower and can hear a fairly constant rumbling noise from the east tower, and from the west tower he hears noises which sound like "gushing water" or "air going through water" as well as a "loud pop and a whining noise that occurs every time that it kicks from one speed to another speed" (R. 212, 218 and Compl. Ex. 22). He can hear these noises from all parts of his property and the noise has caused him to lose the natural cooling effect of the design of his house along the ravine because he has been unable to keep his windows open (R. 219). He has found that the noises also interfere with his sleep, conversation and television watching and cause him to be unable to entertain colleagues and clients on his property (R. 219-223).

Mr. Stiles, who also lives north of the Hospital, but between the two towers, complained of a "continuous dull roar" and the "more annoying noise" associated with the cycling of the west tower (237-238 and Compl. Ex. 22). The noise has awakened him from sleep on a number of occasions, makes him irritable and has deprived the Stiles of full use and enjoyment of their backyard. (R. 240).

The Cullens and the Bartels experienced similar problems from noises described as "a continuous roar" along with "winding up noise" that "starts like a skyrocket" and a noise "like a rushing sound, running water, a droning sound" (R. 462-463 and 599). Their sleep has also been disturbed and the backyards are used less because of the noise (R. 463 or 598-599).

All the nearby residents agree that the noise emitted from the hospital is irritating to them and interferes with their enjoyment of life and property, especially the cycling noises which occur when the tower fans shift between high and low speeds. No rebuttal testimony was presented. On the basis of this testimony the Board finds that noises emanating from the hospital have caused a substantial interference with the lives and enjoyment of property of residents in the area north of the Hospital.

The Hospital contends that the Board should also consider the positive effect on the general health and welfare of those receiving care at the hospital. However, such factors are more properly considered under Section 33(c)(2) which goes to the "social and economic value of the pollution source."

The Board does not question the social and economic value of air-conditioning equipment being used in conjunction with a hospital such that the Hospital can provide state-of-the-art medical care (R. 910-911). The Hospital contends that this benefit to 15,000 patients per year should be balanced against the detriment to the six families who live north of the Hospital and are affected by the noise. Such a position makes sense only if it is impossible to provide airconditioning and meet the noise regulations simultaneously. If, however, the Hospital can reasonably operate in compliance without reducing the quality of patient care, no balancing need be done. Therefore, a determination of this criteria is dependent upon the determination of whether compliance with the regulations is technically practicable and economically reasonable which the Board must consider under Section 33(c)(4).

The Agency contends that several methods of noise abatement are technologically practicable and economically reasonable for the Hospital to pursue: relocation of the west tower, a sound absorptive barrier around the tower, additional screening on the east tower, keeping the doors and windows of the powerhouse closed, variable frequency motors, or alternatively, a ventilated box lined with acoustical material over the top of the tower to reduce cycling noises (R. 292-295, 353, 404, 412, 420, 427, 440, 510, 568-574 and Resp. Exs. 7 and 8). The Hospital contends that the benefits of the proposed corrective actions have not been demonstrated to outweigh the costs of these corrective measures. It does not, however, generally contest the technical practicability of such actions.

In determining whether a particular action is economically reasonable, the Board must consider the ability of the offender to pay, the degree of harm caused by non-compliance and the cost of compliance. The Hospital does not contend that it is unable to pay for corrective actions. Rather, it argues that the injury caused by non-compliance is slight while the cost of compliance is high.

Fred Abdula, president of Air Con which is engaged in the business of installing air conditioning equipment, testified that the relocation of the west cooling tower to place it as far away from surrounding residential properties as possible would cost $231,000 (R. 403-408 and Resp. Ex 8). Mr. Hearn, however, testified that the west tower would not have to be moved that far, that if it were moved to the south side of the powerhouse (such that the powerhouse would act as a barrier) and if additional screening were added to the east tower and doors and windows of the powerhouse were kept closed, the Hospital could meet

daytime standards and come very close to meeting nighttime standards (R. 293-295). The cost of such a relocation would be about $153,000 (R. 413-418).

Mr. Joseph DeCono, a general contractor, testified that a wooden barrier could be erected for $10,290 (R. 440). Mr. Duane Thacker, a representative from the manufacturer, testified that such a barrier could be placed ten feet from the tower without any adverse effects (R. 510). Mr. Hearn testified that the erection of such a barrier along with additional screening and keeping the doors and windows of the powerhouse closed would also result in daytime compliance and near compliance at night. (R. 295).

The Hospital contends that the cost figures for both relocation of the tower and construction of a barrier are too low. The $153,000 figure is argued to be based on overly simplified construction assumptions and does not include overhead and profits (R. 428-431). With respect to the cost of a barrier, the Hospital presented testimony that the figure given is for an undersized barrier and does not include the additional costs of permitting, painting, relocation of electrical highlines and design responsibilities (R. 443 and Resp. Ex. 9). The Hospital argues that the actual cost would be at least $20,917 (R. 446-450). The Hospital further argues that a question remains as to the stability of the wall, but the only testimony in this regard was a general reference by Mr. Wasson, the President of the Hospital and a non-expert with respect to construction, that he would have "concern" as to whether a barrier "would stand the weather" (R. 953). However, Mr. DeCono did not indicate any technical problem.

The question of burden of proof in this proceeding as it regards the Section 33(c) factors has been briefed by the parties: both argue that the other has failed to meet his burden of proof concerning technological practicabliity and economic reasonableness of reducing noise emissions. That the parties would disagree as to who has this burden is not surprising since the two leading decisions regarding this issue appear directly contradictory.

In Processing and Books v. IPCB, 64 Ill.2d 68, 351 N.E.2d, 865 (1976) the Court held that in prosecuting an odor case, the Agency did not have the burden of proving the unreasonableness of respondents' conduct in terms of the four Section 33(c) criteria and that the use of the term "unreasonably" in the definition of air pollution was simply intended to introduce into the statute something of the objective quality of the common law" (351 N.E.2d 869). In Wells Manufacturing Company v. IPCB, et al., 73 Ill.2d 226, 22 Ill.Dec. 672, 383 N.E.2d 148 (1978), however, the Court reversed the Board (over a vigorous dissent) on the basis that "the Agency failed to establish the unreasonableness of those odors" as required by the Act (383 N.E.2d 153).

Those cases are distinguishable from this one and as a matter of fact as well as policy, they should not be applied here. On the facts, both court cases deal with odor nuisances for which there are no numerical standards against which to measure the unreasonableness of the odor. Violations of numerical noise standards have been found here. As a matter of policy if Wells were to be followed, "a recalcitrant polluter could wait until an [enforcement] action is brought and thereby place the burden upon the Agency to prove that compliance with the regulation is reasonable...[while]...a responsible party who seeks a variance... bears the burden of showing that compliance is both arbitrary and unreasonabe" (Comp. Reply Br. 19). In other words such a construction of the Act could make it advantageous for a polluter who has difficulty reaching compliance not to seek a variance. Finally, when the Supreme Court most recently considered the question of the burden of proof regarding the Section 33(c) criteria in Slager v. IPCB, 96 Ill.App.3d 332, 421 N.E.2d 292 (1981), the Court cited Processing and Books rather than Wells in holding that the burden rested on the respondent, rather than the Agency, to introduce evidence on each of these factors.

Thus, the Board concludes that the burden was on the Hospital to show that compliance is not technologically practicable and economically reasonable, and that the Hospital has failed to make that showing. Further, even if that burden were on the Agency, the manifest weight of the evidence indicates that technologically practicable and economically reasonable alternatives exist for reducing emissions. The injury detailed in the discussion of Section 33(c)(1), above, clearly indicates more than a trifling inconvenience or petty annoyance. Not only has this been shown by the numerical violations which indicate substantial exceedances, especially at night, but through the considerable testimony of the nearby residents that the cycling of the west tower is even more annoying than the "usual" sounds which formed the sole basis of the numerical violations. This has been allowed to continue despite the more than adequate funds available to the Hospital to take additional corrective actions and the availability of several methods of reducing noise.

Section 33(c)(3) of the Act concerns the suitability of the location of the pollution source. In this regard the Board finds that although the Hospital was constructed slightly prior to the residential development of the area (R. 262, 897 and 902), the air conditioning equipment was not added until 1966 (R. 906), decades after residential development, and the west tower was not built until 1978 (R. 904-904 and 909). Because of that, the Hospital cannot prevail in its argument that it has priority of location in that the construction of the noise sources at issue here was long after the residential nature of the properties north of the Hospital had been established. (See Wells, supra, 383 N.E.2d 152).

While the Hospital argues that its cooling needs could not have been met without the west cooling tower (R. 795 and 910),

the placement of that tower only 10 to 15 feet from residential property, especially after noise complaints had been received by the Hospital since 1976 due to the powerhouse and the east tower, is particularly inappropriate. The Hospital also, in effect, argues that there was no other place to put the west tower because of a number of "physical and economic impediments" (Resp. Br. 72). However, the Hospital has only succeeded in proving that it would have been less convenient and more expensive to place the tower somewhere else.

In sum, noise from the Hospital has caused substantial interference with the lives and the enjoyment of property of all the families living immediately north of the Hospital. While the social and economic value of the Hospital is unquestioned, that value is reduced when the Hospital is operated in such a manner as to cause a nuisance. The placement of a noisy cooling tower so close to the property of complaining neighbors is particularly inappropriate. However, economically reasonable and technologically practicable methods of reducing the noise emissions exist.

The Board finds that the Hospital has violated Rules 102, 202 and 203 of Chapter 8: Noise Pollution.

PENALTY

In determining a penalty the Board must consider the same Section 33(c) factors as are discussed above. In addition, the Board must consider any other aggravating or mitigating factors,

The Agency recommends that the Board order the Hospital to cease and desist and to pay a penalty of not less than $6,000. That recommendation is based on the degree of injury and the Hospital's slow and ineffective response in abating the violations. On the other hand, the Hospital contends that it has acted reasonably and responsibly in abating the problem and that "its unwillingness to voluntarily proceed further is neither criminal nor negligent" (Resp. Br. 91). The Board notes, however, that no crimes have been alleged and that negligence is not an element which need be proven to establish any violations at issue here. The Hospital's responsiveness, on the other hand, is clearly material to the imposition of a penalty.

As noted earlier, the Hospital first became aware of a noise problem associated with the east cooling tower in 1976 and gave assurances that the problem would be rectified (R. 17 and 23). Yet, prior to completion of any remedial measures, the Hospital built and began operation of a second tower in June of 1978 which it placed in close proximity to the first (R. 39). Noise emissions were, clearly, a consideration in the selection of an oversized tower and cost the Hospital more than a small, noisier tower would have, although the amount is not given (R. 480-481). Actions were also taken to keep doors and windows of the powerhouse closed and to reduce the cycling problem. These actions have been

somewhat effective (R. 189,466 and 469). The Hospital did, belatedly, have gear-reducers installed in the east tower in 1979 at a cost of $12,975 (R. 26 and Resp. Ex. 29) and in early 1980 had an air inlet attenuator installed on the north face of the west tower at no cost to the Hospital (R. 41-44).

Upon learning that apparent violations persisted, the Hospital retained Mr. Yerges in June of 1980 as a noise consultant, more than a year after Mr. Hearn had recommended that such a consultant be hired (R. 24-26, 51, 334 and Comp. Exs. 12-13). He suggested that the west tower be run at low speed and the Hospital insists that a program was implemented to assure low speed operation of the east cooling tower fans (R. 759-760). However, testimony indicates that high speed operation is necessary on hot, humid days and that Hospital personnel sometimes operate the towers at high speed despite directives to the contrary (R. 45-46 and 758-761). Nothing further has been done despite the fact that violations have continued and both the Agency's and the Hospital's experts agree that further modifications could be made.

Considering the length of time that has passed since the Hospital first became aware of a noise problem, little has been done to remedy it. Response has been slow and largely ineffective. The Hospital appears to have adopted a philosophy that if it keeps talking and studying, perhaps the problem will go away. Hospital expenditures have been minimal and the Hospital's attitude appears to be that it is enough to press the manufacturer of the the equipment to fix the problem. However, the noise source is the Hospital and it is the Hospital's responsibility to correct the problem. It was not "reasonable and proper for the Hospital to rely on the parties which were responsible for the equipment and contract performance" (Resp. Br. 90) until construction program completion in 1981 when the west cooling tower operation resulted in noise violations upon going into service in 1978 (R. 904 and 1013). If there was a failure to perform the contract, that is a separate issue between the Hospital and the manufacturer that has little bearing on the Hospital's responsibility to its neighbors.

Such dilatory and ineffective actions are only encouraged if no penalty is assessed when enforcement actions are finally taken. Therefore, a penalty is appropriate to encourage compliance with the act. While the injury caused has not been great in magnitude, it has been substantial and it increases with each day that violations are allowed to continue. The Board finds that a penalty of $2,500 is appropriate. Further, since the Hospital is "unwilling to voluntarily proceed further" and since the violations continue, the Board will order the Hospital to cease and desist, making further actions involuntary. The Board will not, however, order any particular actions since a range of options appear available.

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

ORDER

1. Victory Memorial Hospital has violated Rules 102, 202 and 203 of Chapter 8: Noise Pollution.

2. The Hospital shall cease and desist from such violationswithin four months from the date of this Order.

3. Within 45 days of the date of this Order, the Hospital shall, by certified check or money order payable to the State of Illinois, pay a penalty of $2,500 which is to be sent to:

Illinois Environmental Protection Agency
Fiscal Services Division
2200 Churchill Road
Springfield, IL 62706

IT IS SO ORDERED.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, do hereby certify that the above Opinion and Order was adopted on the 10th day of February, 1983 by a vote of 5-0.

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