ILLINOIS POLLUTION CONTROL BOARD
May 9, 1991

JOHN ZARLENGA and JEAN ZARLENGA,	)	
Complainants,	)	
v.	)	PCB 89-169
	)	(Enforcement)
PARTNERSHIP CONCEPTS, HOWARD EDISON, BRUCE MCCLAREN, COVE DEVELOPMENT COMPANY, THOMAS O'BRIEN, BLOOMINGDALE PARTNERS, an Illinois Limited Partnership, and GARY LAKEN,	)	
Respondents.	)	

JAMES M. LOCKWOOD APPEARED ON BEHALF OF COMPLAINANT, AND

NORMAN B. BERGER APPEARED ON BEHALF OF RESPONDENT.

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

On October 23, 1989, John Zarlenga and Jean Zarlenga ("Zarlenga") filed a formal noise complaint with the Board. Such complaint named Partnership Concepts, Howard Edison, Bruce McClaren, Cove Development Company, and Thomas O'Brien as respondents. Two hearings were held on July 9 and July 24, 1990, in Wood Dale, Illinois. The Zarlengas and the respondents filed their post-hearing briefs on September 28, 1990.

In their complaint, the Zarlengas allege that the air conditioning units, generators, fans, and swimming pool dehumidifier located at the respondents' apartment complex emit excessive noise beyond the boundaries of the complex in violation of Section 24 of the Environmental Protection Act (Ill. Rev. Stat. 1989, ch. 111½, par. 1024) ("Act").

BACKGROUND

On March 4, 1987, the Zarlengas closed on the purchase of a new townhome at 23 Country Club Drive, which is on the southwest corner of the intersection of Country Club Drive and Royal Avenue in Bloomingdale, Illinois. (R. 21; Exs. A, B). The townhome was constructed pursuant to a real estate contract that was executed by the Zarlengas some time between March and August of 1986. (R. 21).

Subsequent to the time that the Zarlengas purchased their townhome, the respondents constructed One Bloomingdale Place, an eight-story apartment complex. The complex is located at Schick Road and Country Club Drive and is north of the Zarlengas'

townhome, across Royal Avenue. (Ex. B). The complex contains 168 apartments which house approximately 300 residents. (R. 441, 574). Construction of the building began in the Fall of 1986 and was completed in December of 1988.[1] (Id. 575). The building was first occupied in April, 1988, and was fully occupied by February, 1989. (Id. 441-42, 577). The building is owned by Bloomingdale Partners, a limited partnership in which Mr. Howard Edison, Mr. Gary Lakin, and Mr. Bruce McClaren are the general partners. (Id. 570, 571).

All of the apartments in the complex have balconies, and permanently affixed heating/air-conditioning units which weigh 900 pounds each. (Id. 244). Between 60 and 65 units face Royal Avenue and the Zarlengas' property. (Id. 38, 458, 539). The building has an indoor pool and a clubhouse on its first floor. (Resp. Br. p. 2). The pool area and clubhouse are cooled by a dehumidifier, known as the Zephyr unit, and another heating/air conditioning unit.[2] (R. 34, 36, 463). Although the Zephyr unit is located inside the complex and does not exhaust to the outside, the heating/air-conditioning unit which has one condenser fan and a heat exchanger, a condensing unit which consists of two fans and a coil, and two four-inch exhaust flues for the pool and spa boilers are located outside and along the south side of the building facing Royal Avenue and the Zarlengas' property. (Id. 35, 463, 540, 542, 545, 557-58).[3] A three foot fence and shrubs surround the heating/air conditioning unit. (Id. 69-70, 73, 469-470, 532, 545).

On or about March 22, 1988, Mr. Zarlenga approached Mr. Thomas O'Brien, one of the architects of the building to express his concern about the noise levels from the building. (Id. 41, 82). After several conversations with Mr. O'Brien, Mr. Zarlenga

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[1]Respondent's brief and certain testimony indicate that construction was completed in the Spring (March) of 1988. (R. 468; Resp. Br. p. 1).

[2]There is some confusion as to which units are associated with the pool and clubhouse area. The respondents, in their post-hearing brief, state that the dehumidifier and another air conditioning unit are known collectively as the "Zephyr" unit. (Resp. Br. p. 2). The Zarlengas, on the other hand, refer to the Zephyr unit and a dehumidifier unit as separate units. (Comp. Br. p. 1). Certain testimony, however, leads us to conclude that the dehumidifier unit is the same as the Zephyr unit. (R. 35, 540).

[3]There is a great deal of conflicting testimony regarding which equipment is on the outside of the complex, which equipment exhausts to the outside of the complex, and which equipment is responsible for the noise emissions. (R. 34-36, 463, 540, 545, 558).

was told to contact Mr. Edison, one of the owners of the property. (Id. 43-45). Mr. Zarlenga talked with Mr. Edison on several occasions, and contacted the Village of Bloomingdale in an attempt to resolve the problem before filing the formal complaint with the Board on September 5, 1989. (Id. 45-48, 50-51, 56, 59).

PRELIMINARY MATTERS

The Zarlengas originally named Partnership Concepts, Howard Edison, Bruce McClaren, Cove Development Company, and Thomas O'Brien as respondents in their complaint. On October 26, 1989 respondents moved to dismiss Cove Development Company and Mr. O'Brien as respondents. On December 6, 1989, the Board issued an order stating that it would not dismiss the respondents and that it would not address the issue of whether the two respondents violated Section 24 of the Act until after full development of the record at hearing and the submission of post-hearing arguments. The motion was raised again at the hearing. (Id. 591). The Hearing Officer reserved the issue for the Board but allowed the Zarlengas to add Mr. Gary Lakin and Bloomingdale Partners as respondents.

In their post-hearing brief, the respondents argue that the evidence at hearing indicates that Cove Development Company, Mr. O'Brien, and Partnership Concepts do not own and have no interest in One Bloomingdale Place. (Resp. Br. p. 1). Specifically, respondents argue that Cove Development Company was the general contractor for the construction of the complex, that Mr. O'Brien is one of the principals of Cove Development Company, and that Partnership Concepts is an entity in which Mr. Edison is a partner but which does not own or operate the complex. (Id.). Respondents also argue none of the three respondents contributed to the sound emissions at issue. (Id.).

At hearing Mr. Edison testified that he, Mr. Laken, and Mr. McClaren are the three general partners in a 40 to 50 member partnership (i.e. Bloomingdale Partners) that owns One Bloomingdale Place. (R. 579). He also confirmed that neither Partnership Concepts, Cove Development Company, nor Mr. O'Brien own or operate the complex. (Id. 570-71, 579-80). Specifically, Mr. Edison testified that Cove Development Company was the general contractor for the project and that Mr. O'Brien is one of the principals of the company. (Id. 580). He added that he and Mr. McClaren are also members of Partnership Concepts, a general partnership through which limited partnerships are formed, but which does not have any interest in One Bloomingdale Place. (Id. 580, 583).

As previously stated, the Board issued an order on December 6, 1989, that, in part, denied respondents' motion to dismiss Mr. O'Brien and Cove Development Company from this action. The Board

stated that Mr. O'Brien's affidavit asserting that neither he nor Cove Development Company owns, operates, or otherwise occupies the property fell "far short of affirmatively stating that either individual respondent has absolutely no interest in the property and has engaged in no activity with respect to the property which would have resulted in offending noise emissions". (see p. 3 of that Order). In light of Mr. Edison's testimony and the fact that the Zarlengas' did not effectively rebut it, the Board will dismiss Partnership Concepts, Cove Development Company, and Mr. O'Brien as parties to this action. However, Bloomingdale Partners, Mr. Edison, Mr. McClaren, and Mr. Laken will remain as the named party respondents.

APPLICABLE LAW

Title VI of the Act establishes procedures and standards for noise control. Section 23 sets forth the legislature's purpose of preventing noise which causes a public nuisance. Section 24 prohibits emitting noise beyond one's property which unreasonably interferes with the enjoyment of life or lawful activities in violation of Board rules or standards. The Board's authority to adopt noise regulations is found in Section 25.

Sections 23 and 24 of Title VI provide as follows:

> Section 23
>
> The General Assembly finds that excessive noise endangers physical and emotional health and well-being, interferes with legitimate business and recreational activities, increases construction costs, depresses property values, offends the senses, creates public nuisances, and in other respects reduces the quality of our environment.
>
> It is the purpose of this Title to prevent noise which creates a public nuisance.
>
> Section 24
>
> No person shall emit beyond the boundaries of his property any noise that unreasonably interferes with the enjoyment of life or with any lawful business or activity, so as to violate any regulation or standard adopted by the Board under this Act.

The Board has implemented these sections of the Act in two ways. First, the Board has adopted specific numerical limitations on the characteristics of sound that may be

transmitted from source to receiver. Second, the Board has adopted the following general "narrative" standard at 35 Ill. Adm. Code 900.102:

> Section 900.102 Prohibition of Noise Pollution
>
> No person shall cause or allow the emission of sound beyond the boundaries of his property, as property is defined in Section 25 of the Illinois Environmental Protection Act, so as to cause noise pollution in Illinois, or so as to violate any provision of this Chapter.

Noise pollution is defined at 35 Ill. Adm. Code 900.101 as:

> Noise pollution: the emission of sound that unreasonably interferes with the enjoyment of life or with any lawful business or activity.

In effect, these two sections adopt regulatory public nuisance provisions for noise control using the statutory phrase "unreasonable interference with the enjoyment of life or with any lawful business or activity" as the standard. The Zarlengas' pleadings, testimony, and exhibits are founded in this public nuisance theory, rather than in terms of numeric noise levels that exceed the Board's numeric sound emission levels.

Sections 900.101 and 900.102 were given judicial interpretation in Ferndale Heights Utilities Company v. Illinois Pollution Control Board and Illinois Environmental Protection Agency, 41 Ill. App. 3d 962, 358 N.E.2d 1224 (1st Dist. 1976). In that case, the First District Court held the regulatory language to be constitutional since sufficient standards could be comprehended from reading Section 24, the Board's regulations, and the guidelines for enforcement cases found in Section 33(c) of the Act. The court affirmed the Board's finding of unreasonable interference with the enjoyment of life, in light of adequate testimony describing the noise; explaining the type and severity of the interference caused by the noise; and indicating the frequency and duration of the interference. Despite conflicting testimony, the court upheld the Board's finding that the interference was unreasonable.

TESTIMONY REGARDING NUISANCE

At hearing, several witnesses testified on behalf of the Zarlengas. First, Mr. Zarlenga characterized the noise as a "loud rumbling sound" that occurs 24 hours a day, and stated that it had the following effect:

> You can't sleep because of the noise. You can't live

> (sic) inside the house because of the noise. You can't have anybody sitting on the patio because of the noise.
>
> (R. 39-40).

Mrs. Zarlenga, on the other hand, described the sounds emanating from One Bloomingdale Place as "rumbling, humming noises" that are "continuous and monotonous". (Id. 125). She also stated that the noise had the following effect:

> It's made my life miserable. I cannot use my deck. I cannot have company over....I can't open my windows in my bedroom. I toss and turn all night. If I am fortunate enough to be able to fall asleep from being dog tired from the previous three days from not sleeping, either the dehumidifier or the Zephyr goes on or some of the air conditioners go on.
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> (Id. 126).

Mr. Zarlenga's parents, both of whom have lived with the Zarlengas since March, 1987, also testified at hearing. Mr. Zarlenga's father, John Sr., characterized the noise as a "loud humming sound" that continues throughout every night during the summer, and stated that he often sleeps in the basement because of the noise. (Id. 119). He also stated he must put on ear phones to listen to the television or, if he is not watching television, go downstairs every night in the summer. (Id. 119-20). Mr. Zarlenga's mother, Esther, characterized the noise as a constant "rumbling sound". (Id. 122). She also stated that she can not stay in her bedroom or open the windows and that she has to spend time in the basement of the townhome. (Id.).

Two of the Zarlengas' neighbors also testified at hearing. Ms. Danuta Bruekmannn, who resides in the townhome on the south side of the Zarlengas' townhome (i.e. 22 Country Club Drive), described the sound as a "winding noise", and stated that she can not open her windows at night. (Id. 96, 100). She also stated as follows:

> I can hear it every day. You can hear it through closed windows. I am muffled because of them next door to me. But at night when it is quiet out you can hear it with the windows closed. During the day I hear day noises, you hear cars, people. It is completely different at night, because it is so quiet. But you can hear all the air conditioners.
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> (Id. 101).

Ms. Victoria Gazda, whose home is located at 72 Fountaine Court, which is one block west of the Zarlegas' townhome in

another subdivision in the area of One Bloomingdale Place, also testified. She characterized the sound as a "humming noise and an unusual noise" that occurs constantly and stated that she can hear the noise in her kitchen and upstairs bedroom. (Id. 109).

Mr. Gregory T. Zak, who has been a Noise Technical Advisor with the Illinois Environmental Protection Agency during the past 18 years, also testified on behalf of the Zarlengas. Although Mr. Zak testified that he had never visited the area, heard the noise, interviewed people in the area, or taken sound measurements, he stated that he believed that there was a "very high likelihood of a noise problem being generated". (Id. 172, 190-91, 199-201). Mr. Zak testified that his conclusion was based upon the testimony at hearing, his experience, the facts of the photographs presented into evidence, and the information supplied by the manufacturers of the offending units. (Id. 171-72). Mr. Zak also testified that the design of the apartment complex enhances the noise effect of the individual air-conditioning units and the units associated with the pool and clubhouse. (Id. 172). Specifically, Mr. Zak testified that the configuration of the building is very similar to that of a loud speaker or a rough parabolic shape and that, as a result of the building being high and having multiple sound sources on it, sound is focused at a point in front of the structure. (Id. 168, 236). With regard to the acoustical effect of the simultaneous use of the individual air-conditioning units and other noise sources, Mr. Zak explained that each unit has an exhaust fan and that the fans run slightly out of phase when they are turning. (Id. 170-71). He added that, as a result, there is constructive and destructive interference of the sound waves that can best be described as a throbbing or a very low frequency noise. (Id.).

Ms. Cathy Macaione, the building manager of the complex who has also lived on the northwest side of the building since August of 1988, testified on behalf of the respondents. (R. 440, 459). With regard to the individual air conditioning units, she stated that, when her windows are open and she is in her middle room or bedroom, she can hear continuous airplane noise (i.e. every 15 or 20 minutes) and children yelling during baseball games in a nearby baseball field. (Id. 459-61). She also stated that, when she is in her bedroom with the window open, she can hear an air conditioning unit that is opposite the window when it turns on and off. (Id.). She added, however, that the noise from the airplanes rather than individual air conditioning units at the complex interfere with her use and enjoyment of her property. (Id. 460). She also stated that the majority of residents are not at the complex at the same time because many of them travel and that, as a result, many of the individual air conditioning units are off. (Id. 457-58, 533). Finally, she stated that, to her knowledge, there have been no complaints from either the residents of One Bloomingdale Place or the neighbors of the complex (other than the Zarlengas) regarding the complex's noise

levels. (Id. 461-62).

FINDING OF INTERFERENCE

The threshold issue in any noise enforcement case is whether the sounds have caused some type of interference with the complainants' enjoyment of life or lawful business activity. Interference is more than an ability to distinguish sounds attributable to a particular source. Rather, the sounds must objectively affect the complainants' life or business activities. Zivoli v. Dive Shop, PCB 89-205, p. 7 (March 14, 1991); Kvatsak v. St. Michael's Lutheran Church, PCB 89-182, 114 PCB 765, 773 (August 30, 1990); Kochanski v. Hinsdale Golf Club, PCB 88-16, 101 PCB 11, 20-21 (July 13, 1989), rev'd on other grounds, 197 Ill. App. 3d 634, 555 N.E.2d 31 (2d Dist. 1990). Moreover, testimony to the effect that the sound constitutes an interference solely because it could be heard is insufficient to support a finding beyond a "trifling interference, petty annoyance or minor discomfort." Wells Manufacturing Company v. PCB, 73 Ill.2d 226, 383 N.E.2d 148, 150 (1978).

Although Ms. Macaione testified that the noise from the apartment complex did not interfere with her use and enjoyment of her property, the Board notes that Ms. Macaione's apartment was located in a substantially different location than the Zarlengas' townhome. Specifically, Ms. Macaione's apartment was located in One Bloomingdale Place while the Zarlengas' townhome was located a distance away from and in between two wings of the complex (i.e. a point in front of the complex where sound was focused). Moreover, the fact that Ms. Macaione received no other complaints than from the Zarlengas does not mean that the Zarlengas and their neighbors were not bothered by the noise. Rather, the evidence elicited on behalf of the Zarlengas establishes that the noise emitted from One Bloomingdale Place seriously interferes with the Zarlengas' enjoyment of life. The Board will evaluate the factors in Section 33(c) of the Act to determine if such interference is unreasonable.

It should be noted before continuing, that respondents introduced evidence of decibel (dB) readings. It is inappropriate, however, to use numerical data to show compliance with the noise nuisance regulatory standard. The Board previously addressed this issue in Will County Environmental Network v. Gallagher Blacktop, PCB 89-64, 107 PCB 27 (January 11, 1990):

> The Board notes several problems with Gallagher's reliance on numerical sound measurements as a defense to the noise nuisance action. First, compliance with one set of regulations (the numerical noise emissions values) does not present an absolute bar to finding of

> violation regarding another set of regulations (the general nuisance noise prohibitions).
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> (Id. at 8, 107 PCB at 34).

(See also Village of Matteson v. World Music Theatre et al., PCB 90-146 p. 4 (April 25, 1991). We will, however, discuss the respondents' numerical evidence during our analysis of the Acts' Section 33(c) factors (see below).

SECTION 33(c) FACTORS

As the Ferndale Court noted, in order to make a determination concerning the reasonableness of the noise emissions, the Board must consider the statutory factors found in Section 33(c) of the Act. Ferndale, 44 Ill. App. 3d at 967-68, 358 N.E.2d at 1228. That section provides as follows:

> In making its orders and determinations, the Board shall take into consideration all the facts and circumstances bearing upon the reasonableness of the emissions, discharges, or deposits involved including, but not limited to:
>
> 1. the character and degree of injury to, or interference with the protection of the health, general welfare and physical property of the people;
>
> 2. the social and economic value of the pollution source;
>
> 3. the suitability or unsuitability of the pollution source to the area in which it is located, including the question of priority of location in the area involved;
>
> 4. the technical practicability and economic reasonableness of reducing or eliminating the emissions, discharges or deposits resulting from such pollution source; and
>
> 5. any economic benefits accrued by a non-complying pollution source because of its delay in compliance with pollution control requirements;
>
> 6. any subsequent compliance.

These factors guide the Board in reaching a decision on whether or not noise emissions rise to the level of noise

pollution, which by definition, unreasonably interferes with the enjoyment of life, and which is proscribed by the Act and regulations. The Illinois courts have held that the reasonableness of the interference with life and property must be determined by the Board by reference to these statutory criteria. (see also Wells Manufacturing Company v. Pollution Control Board, 73 Ill.2d 225, 232-33, 383 N.E.2d 148, 150-51 (1978); Mystic Tape, Div. of Borden, Inc. v. Pollution Control Board, 60 Ill.2d 330, 328 N.E.2d 5, 8-9 (1975); Incinerator, Inc. v. Pollution Control Board, 59 Ill.2d 290, 319 N.E.2d 794, 798-99 (1974); City of Monmouth v. Pollution Control Board, 57 Ill.2d 482, 313 N.E.2d 161, 163-64 (1974).

The Board considers the factors as follows:

33(c)(1)-Character and Degree of Injury or Interference

In evaluating the first of the Section 33(c) factors, the Board finds the injury to and interference with the health and general welfare of the Zarlengas to be substantial. This interference goes far beyond trifling interference, petty annoyance or minor discomfort. Deprivation of sleep constitutes one of the most serious of injuries short of trauma. This instant circumstance is further aggravated by the continuous, 24-hour-a-day, nature of the noise pollution, which allows for no respite, and causes the active invasion of the Zarlengas' townhome at all times.

33(c)(2)-Social and Economic Value of Pollution Source

As previously stated, One Bloomingdale Place, is an eight-story luxury apartment complex that contains 168 apartments which house approximately 300 residents. (Id. 441, 574). The building was completely leased in December of 1988 and has enjoyed a nearly complete occupancy rate since February of 1989. (Id. 442, 577). Based upon these facts, the Board finds that One Bloomingdale Place is of substantial social and economic benefit in that it provides rental housing for those who do not wish to purchase property in the area. We also find, however, that the social and economic benefit of the complex is significantly reduced by the nature of the noise emissions from the property.

33(c)(3)-Suitability of the Pollution Source to the Location

The record contains very little descriptive information on the area beyond the Zarlengas' and respondents' property. Specifically, there are only a few references to the fact that there are subdivisions surrounding the Zarlengas' property and that construction in the area is proceeding at a rapid pace. (Id. 79-80). However, Mr. Edison testified that there had been public hearings regarding the plans for the design of the building and that those plans were approved by the Village of

Bloomingdale's building, planning, and zoning departments as well as its Village Board. (Id. 573-75). In light of the above facts, Board finds that One Bloomingdale Place is suitable for the area in which it is located.

On the priority of location issue, Mr. Zarlenga testified that he purchased his townhome some time between March and August of 1986, and that he closed on the property on March 4, 1987. (Id. 21). Construction of One Bloomingdale Place began in the Fall of 1986. However, Mr. Edison testified that the Village of Bloomingdale approved the project before the summer of 1985, that Bloomingdale Partners had contracted to purchase the land for the complex in either the Summer or Fall of 1985, and that the Village approved a bond issue for the development of the project in the summer of 1985. (Id. 572-73). Moreover, although One Bloomingdale Place had not been built, Mr. Zarlenga testified that he knew that there was a possibility that an eight-story apartment complex (i.e. One Bloomingdale Place) was going to be built when he purchased his townhome. (Id. 63, 67-68, 81). Based on this information, the Board finds that One Bloomingdale Place has priority of location. We also find that the weight of this factor is increased when one considers the fact that Mr. Zarlenga knew of the proposed apartment complex project and that public hearings regarding the design of the building were held prior to the Village's approval of the building. (Id. 574-75).

33(c)(4)-Technical Practicability and Economic Reasonableness of Reducing or Eliminating the Emissions

As previously stated, respondents introduced evidence of dB readings to rebut the Zarlengas' case. Although it is inappropriate to use numerical data to show compliance with the noise nuisance regulatory standard, we will examine such evidence at the outset of our deliberations of whether it is technically practicable to reduce the emissions from One Bloomingdale Place.

Mr. Alan Batka, a certified mechanical engineer employed by Polytechnic, Inc., testified that he performed three sets of sound tests at One Bloomingdale Place to determine the level of sound emissions from the complex and the effect of the emissions on the Zarlengas' property as well as the background sound level at the site. All of the tests were conducted in accordance with American National Standards Institute standard S1.13. (Id. 264-65). Specifically, Mr. Batka used a Bruel and Kjaer sound meter which has an octave filter set to separate the sound into nine frequencies. (Id. 265-66).

The first sound test was conducted in July 1989. (Id. 263). Mr. Batka stated that the purpose of the test was to determine the level of sound emitted from the Zephyr unit and pool air conditioning unit. (Id. 271). During the morning and early afternoon of that day, Mr. Batka measured the sound levels at 12

locations between the Zarlenga's home and the complex. (R. 271, 343; Resp. Ex. 1). Locations 11 and 12 were at the northeast and northwest corners, respectively, of the Zarlengas' townhome. (R. 3, 277, 288, 291; Resp. Ex. 1). Measurements were taken when the units were on and then when they were off. (R. 278-79, 293). Mr. Batka testified that 75% to 90% of the individual air conditioning units were operating during the test. (Id. 290). The second sound test was conducted on April 26, 1990 between 7:45 p.m and 9:25 p.m. (Id. 263, 292, 392). Mr. Batka stated that the purpose of the test was to determine the sound effect of the individual air conditioning units and the Zephyr unit. There was some argument at hearing regarding how many of the individual air conditioning units were operating during the test (estimates run from 30 to 42 units or 70% of the units). (Id. 474-76, 549-50, 562). As with the July 1989 sound test, Mr. Batka took measurements at various locations, including locations in the Zarlengas' yard directly across from the apartment complex when the units were operating and when they were off. (Resp. Ex. 2). In order to determine the impact that the Zarlengas' air conditioning unit had on the sound levels at the Zarlengas' home, Mr. Batka also measured the sound levels of the area when the Zarlengas' air conditioning unit was on and when it was off. (Id.). In May 1990, Mr. Batka conducted a third sound test. (R. 264; Resp. Ex. 6). The purpose of that test was to measure the sounds emitted from a single air conditioning unit with and without an attenuation device (i.e. the air conditioning unit's compressor was encased in a sheet metal cabinet and insulated with foam insulation). (Id. 333-34, 414).

At hearing, Mr. Batka argued that the data elicited during the above tests not only show that the sound levels emitted from One Bloomingdale Place are reasonable and in compliance with the Board's regulations, but that the equipment at the complex causes no significant increase over the background noise. (Id. 292, 294-95, 314-15, 317-18, 320, 327-28, 333, 339, 400-01; Resp. Exs. 1, 2, 3, 4, 5, 6). However, although Mr. Batka conducted the sound tests in accordance with American National Standards Institute standard S1.13, he admitted that the tests were not conducted in accordance with the Board's regulations for measuring noise. (Id. 265-66). Specifically, Mr. Batka testified that he did not take the measurements on one-hour Leq-weighted basis, that he did not use a barometer, and that, for many of the measurements, the sound meter was within 25 feet of a reflective surface. (Id. 347, 348, 352, 357, 360). Board regulations, however, specify that numerical sound emissions data must be taken in accordance with the Board's guidelines. 35 Ill. Adm. Code 901.102. In Anthony W. Kochanski v. Hinsdale Golf Club, PCB 88-16, 101 PCB 11, (July 13, 1989), the Board stated that it is impossible to establish a violation of the noise regulations using results which were not taken on a Leq-weighted basis. (Id. at 7, 101 PCB at 17). If it is impossible to establish a noise violation before the Board using a test

protocol that does not comport with the Board's regulations, Mr. Batka's test protocol, at the very least, leads the Board to question the validity of his results. In fact, Mr. Batka's data indicates that the sound levels for certain frequencies were lower when the complex's units were operating than when they were not. (R. 373, 374-76, 377). Accordingly, based on the above, we will not look to Mr. Batka's data as support for the proposition that it is impossible to effectively reduce the noise levels around the Zarlengas' townhome, but will discuss the other testimony relevant to this issue below.

With regard to the 60 to 65 individual air conditioning units, Mr. Zak recommended that two silencers (one for intake and one for exhaust) be attached to each unit, that the compressor on the units be enclosed, and that a minimal amount of duct work be added to the exhaust fan of each unit. (Id. 179-80, 212). As for the silencer on the unit, Mr. Zak recommended that Industrial Acoustics Company's frequency quiet duct type LFM silencer be attached to each unit. (R. 175; Ex. I). The model measures approximately 24 inches by 24 inches by five feet, weighs approximately 100 pounds, produces a minimal static pressure drop, and would be effective in controlling rumbling noise (i.e. noise in the low frequency or base part of the spectrum) to the extent that there could be a sound reduction of 11 to 25 dB for some frequencies (i.e. 50% to 70%). (R. 175-77, 180, 187, 212-13). In terms of installing the above equipment, Mr. Zak stated that he believed one possible solution would be to mount the silencers and duct work on the outside wall of each apartment unit and attach approximately 50 pounds of brackets and bolts to secure the equipment. (Id. 180-81, 213). He also stated that the silencers could be mounted on the balcony areas to avoid having the units mounted on the side of the building, but that this solution would entail more expense. (Id. 181). In terms of economics, Mr. Zak learned from Industrial Acoustics that it would cost $25,000 for approximately 120 silencers (two on each of the 60 units). He also opined, based on his past experience, that it would cost $50,000 to install the equipment. (Id. 182, 216, 219). As for the clubhouse units, Mr. Zak testified that the easiest solution would be to relocate the units. (Id. 175-176). He added that another possible solution would be to erect three-quarter inch plywood mounted on a two by four frame around the equipment, line the inside of the structure with fiberglass, use an intake silencer to supply cool ambient air to the equipment, and attach exhaust silencers on the exhaust vents. (Id. 241).

In rebuttal, respondents called Mr. Michael Mungovan, a journeyman pipe fitter who is also experienced in the installation and repair of heating and air conditioning equipment. Mr. Mungovan testified that he researched the possibility of using LFM or duct silencers on the complex. (Id. 415-16, 419-22). He stated that there were several reasons why

silencers were not a feasible alternative to reduce the noise from the individual air conditioning units. Specifically, Mr. Mungovan stated that silencers would not be feasible because the silencers would cover half of the bedroom windows of seven apartments, the silencers would block the gas fired furnace exhausts and flues of all of the apartments, static pressure would be increased once sheet metal or duct work were added to the air conditioner condenser fans, 20 to 30 feet of straight duct work would have to be added to the air conditioning units and hung from the building, and because the silencers would easily rust through their spot welding and would need to be replaced within five years. (Id. 415-16, 426-27, 428-30, 438). In terms of expense, Mungovan testified that, in addition to the cost of the silencers, the installation of the silencers and the cost of the additional sheet metal would be at least $60,000. (Id. 430).

With regard to the pool and clubhouse equipment, Ms. Macaione testified that it would cost approximately $12,000 to move the equipment. (Id. 477). She added that she contacted Fieldhouse, the contractor that installed the heating and air conditioning units at One Bloomingdale Place, regarding the possibility of installing a timer on the Zephyr unit, but was told that the design of the unit prohibits such action. (Id. 536).

During our review of those portions of the record relevant to this issue, it became obvious that each party was making every effort to attack the validity of the above testimony as it relates to a solution for the noise emitted from the individual air conditioning units. Specifically, respondent's attorney elicited the following facts: that Mr. Zak was not an engineer, that he did not contact a mechanical or structural engineer to see how the silencers would be mounted on the building or if it would be structurally feasible, that he had never seen 120 silencers hung from the side of a residential building, and that he did not include the cost for the materials (i.e. sheet metal, duct work, and brackets) or the installation costs in his estimate. (Id. 213-14, 217-18, 223-24, 233). It was also revealed that Mr. Mongovian had never installed a silencer on an air conditioning unit. (Id. 431, 437).

The information elicited by each party's attorney adds to the Board's difficulty in addressing this issue. However, we do believe that it is technically feasible and economically reasonable to somehow control the noise emitted from One Bloomingdale Place. This conclusion is based, in part, on Mr. Zak's considerable experience in dealing with noise problems and the fact that he referred to his files and various publications from several acoustic experts and manufacturers of silencers and acoustic equipment and examined several possible solutions before recommending a course of action. (Id. 147-48, 157, 159, 173,

176, 189, 238).

As for the individual air conditioning units, we recognize that Mr. Zak's recommendation to attach LFM silencers to the side of the building may not be feasible, but are unwilling to make an unconditional determination regarding his recommendation at this point. First, a structural engineer has not analyzed whether the complex can withstand the mounting of silencers on its walls. Moreover, because Mr. Mongovian is not a sound engineer, we do not know if unobtrusive ductwork can, in fact, be fitted to the individual air conditioning units. Finally, there may be other alternatives available to reduce the noise that are more desirable albeit more expensive. Accordingly, our Order below will be crafted to take such concerns into account.

Finally, with respect to the pool and clubhouse equipment, we note that Mr. Zak's recommendation to either modify or relocate the equipment was largely left unrebutted. Specifically, except for Ms. Macaione's testimony regarding the cost to relocate the equipment, respondent did not present any detailed technical or economic information regarding Mr. Zak's recommendation. Moreover, we have no idea as to where Ms. Macaione obtained her cost estimate. Accordingly, we find that it is technically feasible and economically reasonable to reduce or eliminate the noise from the equipment.

33(c)(5)-Economic Benefits Accrued by Noncomplying Pollution Source

The evidence indicates that the allegations of noise pollution by the Zarlengas, as herein found to exist in fact, have been made since March of 1988. (Id. 41). To the extent that these violations have been in existence since that time, Blommingdale Partners, as well as its general partners, have evaded the costs associated with compliance, and have therefore accrued economic benefits commensurate with that absence of expenditure.

33(c)(5)-Subsequent Compliance

The record indicates that several actions were taken at One Bloomingdale Place subsequent to the time that Mr. Zarlenga talked with Mr. Edison on March 22, 1988. The following is a summary of the work done at the complex after that date.

First, in 1988, a 12 inch piece of metal was added to the fans outside the pool and clubhouse to deflect noise. (Id. 497-98; Resp. Ex. 16). On January 14, 1989, two set back thermostats were installed to ensure that the heating/air conditioning unit was not on while the clubhouse was not occupied. (R. 480-81, 554; Resp. Exs. 17, 18, 19). In November of 1989, all of the individual air conditioning units were insulated with fiberglass

and outfitted with backtrack and gravity filled dampers. (Id. 73-75, 93-94, 95, 433-34, 471, 503-04, 531-32; Resp. Ex. 21). Ms. Macaione testified that the total cost of the project was $76,000 ($48,000 for the insulation and $28,000 for the dampers). (Id. 472-73, 504-06; Resp. Exs. 22, 23, 24). She also testified the some work had been done in April of 1989, to convert the pool and clubhouse heating unit to an air conditioning unit in hot weather. (R. 469-70; Resp. Ex. 12B). A memo, dated June 23, 1989, evidences the fact that Ms. Macaione directed Mr. Bob Schwartz, the maintenance supervisor at that time, to reinstall the fence around the unit after the work was completed. (R. 488-89; Resp. Exs. 13, 15). Ms. Macaione also testified that shrubs were planted around the fence by July of 1989. (Id. 469-70). Mr. Karbonek, the current maintenance supervisor of the building, stated that he put new bearings in the blower assembly housing of the Zephyr's exhaust vents, that he placed rubber strips under the blower assembly located inside the Zephyr unit, and that he tightened all of the hardware associated with the unit on February 6, 1990, in an effort to assure that no vibration or rattling was present. (Id. 47-48, 51, 123, 130, 132, 470-71, 500-01, 542-44, 565; Resp. Ex. 20). Mr. Karbonek also testified that, in response to the Zarlengas' complaints, he ensures that the Zephyr unit is disconnected after 9:00 p.m. and that the thermostat for the pool's air conditioner and heating unit is programmed so that the unit is shut off from 11:00 p.m. to 7:30 a.m.[4] (Id. 552-55). Finally, in April of 1990, Mr. Mungovan encased the compressor of an individual air conditioning unit in a sheet metal cabinet and insulated it with foam insulation to see if the noise levels from the unit were significantly decreased. (Id. 414).

It is apparent from the record that some of the above work may not have been done in response to the Zarlengas' complaints. For example, the record reveals that there is some dispute as to why the individual air conditioning units were insulated. Mr. Zarlenga testified that the maintenance personnel told him that the insulation was added to the individual air conditioning units in order to prevent cold air from entering the apartments. (Id. 95). Ms. Macaione, on the other hand, testified that the units were insulated to "muffle the vibration noises coming from the units." (Id. 472).

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[4]Ms. Macaione testified that either the maintenance supervisor or janitor turn off the Zephyr unit's fan before they leave work at 4:30. (Id. 465). She added that, if for some reason it is not shut off at that time, Mr. Karbonek will return at 9:00 or 10:00 to turn off the fan. (Id.). She also testified that she circulated a memo, dated June 23, 1989, directing the maintenance supervisor to shut off the fan by 9:00 p.m. and that the memo was circulated in response to the Zarlengas' concerns. (Id. 491-93, 524; Resp. Ex. 14).

In any event, it is evident that the above work had little, if any, effect on the noise levels. For example, Mr. Zak stated that the fence and shrubs surrounding the pool and clubhouse air conditioning unit will have no effect on the noise unless there is a shrub or tree depth of approximately 100 feet, the shrubs or trees are at the height of the highest noise source, and unless the fencing is solid, relatively thick and air tight (i.e. sealed to the ground and high). (Id. 239, 240-41 599-600, 619). Finally, the fact remains that the entire Zarlenga family testified that there has been no reduction in the level of noise coming from the complex. (Id. 95, 120, 123, 130, 132).

CONCLUSION AS TO UNREASONABLE INTERFERENCE

Based on the Board's finding of a serious interference with the Zarlengas' enjoyment of life and after consideration of the factors listed in Section 33(c) of the Act, the Board finds that noise emissions from One Bloomingdale Place are unreasonable and constitute a violation of Section 24 of the Act and 35 Ill. Adm. Code 900.101 and 900.102.

REMEDY

In their complaint, the Zarlengas request that the Board enter an order requiring the respondents to cease and desist from violating the Act. (Complaint p. 4). In their post-hearing brief, the Zarlengas ask that silencers be attached to the air conditioning units on each of the apartments that face their home, that the Zephyr unit, exhaust ducts, and pool dehumidifier unit be relocated to the north side of the apartment complex, that deflectors or silencers be attached to the exhaust ducts, and that a civil penalty be imposed. (Pet. Br. pp. 2, 20).

Section 33(b) of the Act authorizes the Board to issue an order as it deems appropriate under the circumstances that the respondent cease and desist from all future violations of the Act and Board regulations. The Act also authorizes the Board to impose sanctions on those it holds to have violated the Act or Board regulations. Specifically, Sections 33(b) and 42(a) of the Act authorize the Board to impose a civil penalty. In order to determine the appropriate civil penalty the Board is authorized to consider the following factors: the duration and gravity or the violation, the presence or absence of due diligence to comply or secure relief, any economic benefits accrued through a delay in compliance, the amount that will deter future violations and aid in voluntary compliance, and other previously-adjudicated violations. See Section 42(h), as added by P.A. 86-1363, 2002, 1990 Ill. Legis. Serv. 1979, 1989 (West), effective Sept. 7, 1990.

Since hearing in this matter was before the effective date

of Section 42(h), those factors will not be considered in assessing a penalty at this time. People v. Sure-Tan, PCB 90-62 p. 10 (April 11, 1991). Even if the provision were applicable, the Board does not believe that a civil penalty is appropriate at this stage.

While several remedial options were mentioned at hearing, certain informational deficiencies exist with regard to a final solution to reduce the noise being emitted from the complex (see the above discussion under 33(c)(4)). Therefore, in order to assist the Board in determining the most appropriate remedial action for the abatement of the noise, the Board will order respondents to have a competent individual or firm prepare a report that describes, evaluates, and analyzes, to the maximum extent possible, all methods of control (not just those already discussed). Each control option should include anticipated noise reductions, cost of implementation, and an estimate of a reasonable time for implementation.

The Board will retain jurisdiction in this matter pending receipt of the report and final disposition of this matter. The report is to be filed with the Board and the Zarlengas no later than July 31, 1991. Unless a motion requesting a hearing on the contents of the report is received by August 21, 1991, the Board will proceed to issue a final Order regarding compliance as soon as possible thereafter. Any determination regarding the imposition of civil penalties, pursuant to Section 42 of the Act, for non-compliance with this Order will be deferred until the final Order.

This Interim Opinion and Order constitutes the Board's initial findings of facts and conclusions of law in this matter.

ORDER

The Board finds that Bloomingdale Partners, Mr. Howard Edison, Mr. Bruce McClaren, and Mr. Gary Laken have violated Section 24 of the Environmental Protection Act as well as 35 Ill. Adm. Code 900.102 and hereby orders Bloomingdale Partners, Mr. Edison, Mr. McClaren, and Mr. Laken to submit to the Board and complainants, no later than July 31, 1991, a report on the methods of reducing or eliminating the noise pollution at One Bloomingdale Place that is consistent with the accompanying Opinion.

The Board will retain jurisdiction in this matter pending receipt of the report. Unless a motion for hearing on the contents of that report is received by August 21, 1991, the Board will proceed to issue a final Order in this matter.

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that on the 9th day of May, 1991, the above Interim Opinion and Order was adopted by a vote of 7-0.

Dorothy M. Gunn

Dorothy M. Gunn, Clerk
Illinois Pollution Control Board