

ILLINOIS POLLUTION CONTROL BOARD
October 15, 2015

IN THE MATTER OF:)
)
PROPOSAL OF CLIFFORD-JACOBS) R14-22
FORGING CO. FOR AN AMENDMENT TO) (Rulemaking - Noise)
THE SITE-SPECIFIC RULE AT 35 ILL.)
ADM. CODE 901.119)

Proposed Rule. Second Notice.

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

On June 2, 2014, Clifford-Jacobs Forging Company (Clifford-Jacobs) filed a proposal to amend the site-specific rule that applies to its forging facility (facility) located in unincorporated Champaign County. The amendments would extend the facility's allowable operational levels. The facility currently is allowed to operate up to all 14 of its forging hammers at any one time from 6:00 a.m. to 11:00 p.m., Monday through Saturday. Clifford-Jacobs' proposed amendments would allow the facility to operate up to 14 hammers at any one time 24 hours a day, Monday through Saturday. Today the Board proposes the amendments, with the modifications indicated below, for second-notice review by the Joint Committee on Administrative Rules (JCAR).

In this opinion, the Board first provides the procedural history of this rulemaking, followed by a summary of the Board's first-notice findings. Next, the Board summarizes the first notice comments and, as necessary, makes findings. The second-notice rule language is set forth in the order following this opinion.

PROCEDURAL HISTORY

On June 2, 2014, Clifford-Jacobs filed its proposal (Prop.), which, among other things, includes five letters supporting the proposed amendments. Also with the proposal, Clifford-Jacobs filed a motion to waive the 200-person signature requirement. By order of June 19, 2014, the Board accepted the proposal for hearing and granted the motion to waive the signature requirement.

In a letter dated July 11, 2014, the Board requested that the Department of Commerce and Economic Opportunity (DCEO) conduct an economic impact study of the proposal. *See* 415 ILCS 5/27(b) (2014). DCEO has not responded to this request.

The Board set a date for hearing and published notice of the hearing in *The News Gazette*. On August 19, 2014, Clifford-Jacobs timely filed its pre-filed testimony. The hearing took place as scheduled on September 23, 2014. Five persons testified, all on behalf of Clifford-Jacobs: Craig Rost, Executive Director of the Champaign County Economic Development Corporation; Jason Ray, General Manager of Clifford-Jacobs; George Martz, Facilities Manager of Clifford-

Jacobs; Laura Weis, President and Chief Executive Officer of the Champaign County Chamber of Commerce; and Paul Schomer, Ph.D., P.E., of Schomer and Associates, Inc.

During the hearing, the hearing officer admitted 11 exhibits into the record:

- Pre-filed Testimony of Craig Rost, Champaign County Economic Development Corporation (Exh. 1)
- Pre-filed Testimony of Jason M. Ray, Clifford-Jacobs (Exh. 2)
- Pre-filed Testimony of George Martz of Clifford-Jacobs (Exh. 3)
- Photograph No. 1 (Exh. 4) (view of forged products being retrieved from a furnace after forging during annealing)
- Photograph No. 2 (Exh. 5) (view of forging hammer and crew in operation)
- Photograph No. 3 (Exh. 6) (view of product being retrieved from forging hammer)
- Pre-filed Testimony of Laura E. Weis, Champaign County Chamber of Commerce (Exh. 7)
- Schomer & Associates, Inc., *Noise Assessment and Feasibility Report* (May 12, 2014) (pre-filed testimony of Paul Schomer, Ph.D.) (Exh. 8)
- Chart showing updated number of residences within noise contours (Exh. 9)
- Updated aerial noise contour map (Exh. 10)
- Aerial map showing Land-Based Classification Standards classifications of Wilber Heights structures (Exh. 11)

The Board received the comments of Representative Chad Hays, 104th District, supporting Clifford-Jacobs' proposed amendments to the site-specific operational level at 35 Ill. Adm. Code 901.119 (PC 1). On November 3, 2014, the Board received post-hearing comments from Clifford Jacobs (PC 2).

On April 16, 2015, the Board adopted its first-notice opinion and order and invited public comment. Proposal of Clifford-Jacobs Forging Co. for an Amendment to the Site-Specific Rule at 35 Ill. Adm. Code 901.119, R14-22 (Apr. 16, 2015) (Board Op.). The proposed amendments appeared in the *Illinois Register* on May 6, 2015. See 39 Ill. Reg. 6179. The Board set June 30, 2015—55 days following *Illinois Register* publication—as the deadline for the filing of public comments. The Board received comments from Wilber Heights resident Ms. Helen Pheris (PC 3), Clifford-Jacobs (PC 4), and Wilber Heights residents Mr. Mark Kates and Mrs. Linda Kates (PC 5), which was also signed by 24 other area residents (collectively, the residents). In response to Ms. Pheris' and Mr. and Mrs. Kates' comments, the hearing officer issued an order on July 13, 2015 directing Clifford-Jacobs to file a comment responding to these residents' comments and to address Board questions based on them on or before August 12, 2015. At Clifford-Jacobs' request, the hearing officer extended to September 14, 2015, the deadline for Clifford-Jacobs to file its responsive comment. On September 14, 2015, the Board received Clifford-Jacobs' responsive comment (PC 6).

FIRST-NOTICE OPINION AND ORDER

As noted above, Clifford-Jacobs requests that its site-specific operational level be amended to allow the facility to operate up to 24 hours per day, 6 days a week. Prop. at 6. The

forging process generates impulsive sounds that are released through the open doors of building 4, which houses the facility's 10 hammers currently in place. Prop. at 7; Exh. 3 at 2; Tr. at 62, 66. An additional 4 hammers were previously taken out of service and relocated to the facility's back lot. The two forging sounds that may be detected at the facility's perimeter are that of the hammers striking metal pieces—propagating a “boom” sound—and of “steam venting off the hammer,” which emits a “shis” sound. Tr. at 87-88. The source of the noise is both the impact of the dies striking metal and of steam passing through the exhaust vents as the hammers drop. Exh. 3 at 2; Tr. at 66-67. Building 4's ventilation system pulls cool air into the building as heat rises from the hammers. Tr. at 83. Because the building must remain open in so many places for cooling purposes, it does not contain the sound indoors. *Id.* The impulsive sounds radiate throughout the area surrounding the facility, including the 54-unit residential community of Wilber Heights. *E.g.*, Exh. 8 at 1.

In its first-notice opinion, the Board considered the factors that apply to the Board's review of rulemaking proposals under Section 27(a) of the Act (415 ILCS 5/27(a) (2014)). Thus, the Board weighed existing physical conditions; the character of the area involved, including zoning classifications and the character of surrounding land uses; the nature of existing environmental quality; and the technical feasibility and economic reasonableness of reducing noise pollution. Board Op. at 19-22, 24-29. The Board also discussed whether affected Wilber Heights residents had adequate notice of Clifford-Jacobs' proposal and determined that specific notice should be provided to residents of Wilber Heights. *Id.* at 22-24.

Regarding the character of the affected area, the Board noted the industrial zoning of all areas surrounding the facility, including Wilber Heights, but also noted that there is farmland directly west of the facility. Board Op. at 20. In addition, the area surrounding the facility includes other sources of sound emissions, including a railroad and freight switching yard (railroad) and several industrial operators. Based on this evidence, the Board at first notice found that the character of the affected area “supports allowing Clifford-Jacobs to expand its hours of operation as requested, but not necessarily to the full extent sought.” *Id.* at 21. The Board expressed concern about the significant number of Wilber Heights residences that would be subjected to noise above the default nighttime noise limit (53.5 dB (A-weighted Leq), *see* 35 Ill. Adm. Code 901.105(c)) for Class A properties such as residences. *Id.*

The Board next considered the technical and economic feasibility of noise abatement. Two witnesses, Dr. Schomer and Mr. Martz, testified about sound control options available to Clifford-Jacobs. Board Op. at 21-22. They reviewed the efficacy and feasibility of mitigating sound emissions by enclosing or sound-proofing building 4, where the forging operation is housed; installing silencers on the forging equipment; erecting sound barriers between the facility and Wilber Heights; and relocating exhaust vents from the west to the east side of building 4's roof, so that they would face away from Wilber Heights. *Id.* at 21. They testified that these noise control measures are neither technically feasible nor economically reasonable. Of particular relevance here, both witnesses made clear that Clifford-Jacobs had attempted, unsuccessfully, to deploy commercial silencers or mufflers at the facility in the 1970s and the 1980s. *Id.* The Board accordingly concluded that Clifford-Jacobs had established that there is no technically or economically feasible means of abating noise emitted by its forging operation. Board Op. at 22. Because the facility's last attempts to install silencers dated to the 1980s, the

Board proposed at first notice to add provisions to the site-specific rule requiring Clifford-Jacobs to: (1) investigate new technologies, sound abatement measures, and possible operational changes to mitigate sound emissions from the facility; and (2) file a report on the findings of this investigation with the Clerk of the Board every ten years after the effective date of the amended rule. *Id.*

The Board then examined the merits of Clifford-Jacobs' proposed amendments. The Board noted that Clifford-Jacobs obtained its existing site-specific rule because it was unable to comply with the generally applicable noise standards for existing impact forging operations under Section 901.105(c). Board Op. at 24-25. Adoption of the site-specific rule exempted Clifford-Jacobs, considered an "existing" forger under Section 901.105 (*see* 35 Ill. Adm. Code 901.105(a)(5)) from the numeric noise limits at Section 901.105(c) and allowed it to operate up to 14 hammers from 6 a.m. to 11 p.m., Monday through Saturday.

The Board further explained that the default nighttime noise limit on existing forgers for Class A receiving land is 53.5 dB (A-weighted Leq), while the limit for Class B receivers is 64.5 dB at all times, and there is no specified limit for Class C land. Board Op. at 25, citing 35 Ill. Adm. Code 901.105(c). The Board focused its analysis of the impact of Clifford-Jacobs' proposed amendments on the effect on Class A receivers in Wilber Heights. Board Op. at 25. Dr. Schomer's evaluation of the impact of the proposal on Wilber Heights used direct sound measurements and modeling to predict the noise levels at various distances from the facility. Exh. 8, Annex A. Dr. Schomer used 65 dB (A-weighted Leq) at the control site, *i.e.*, the southwest corner of the facility's perimeter, as representing the "worst case" operational scenario and developed noise contours within Wilber Heights at three levels—53.5 dB (nighttime limit), 58.5 dB (daytime limit) and 63.5 dB. Board Op. at 25. Dr. Schomer predicted that under the proposal, 24 houses used as residences will be at or in excess of the 53.5 dB (A-weighted Leq) nighttime level, 12 will be at or in excess of the 58.5 dB (A-weighted Leq) daytime limit, and 2 will be at or in excess of 63.5 dB (A-weighted limit). *Id.*

The Board noted, however, an apparent discrepancy between Dr. Schomer's hearing testimony and Clifford-Jacobs' post-hearing comments regarding projected noise levels with all 14 hammers operating simultaneously. Board Op. at 26. At first notice, the Board invited Clifford-Jacobs to reconcile any conflicts in the evidence. *Id.* Noting a discrepancy between the facility's address in the site-specific rule and the record, the Board also asked Clifford-Jacobs to specify the correct address of the facility. *Id.* at 19.

At first notice, the Board found it appropriate to hold the facility to the worst case scenario described by Dr. Schomer, *i.e.*, the projected noise level produced by operating only the largest hammer at full capacity and the other two larger hammers at 50% of capacity. Board Op. at 26. According to Dr. Schomer's assessment, this would result in nighttime noise levels in Wilber Heights below 65 dB (A-weighted Leq), a level that the Board found to be protective of public health if it were to grant a site-specific operational level to Clifford-Jacobs. *See Clifford-Jacobs Forging Co. Petition for Site-Specific Operational Level Pursuant to 35 Ill. Adm. Code 901.105(d)*, R83-25, slip op. at 3 (Dec. 6, 1984). The Board noted that the record includes no direct evidence about the likelihood as to whether overnight operations will unreasonably

interfere with affected residents' activities, although the evidence showed that the facility's neighbors have never complained about current noise levels from the facility. Board Op. at 26.

Therefore, at first notice, the Board imposed, as a new subsection (c) in Section 901.119, a condition limiting noise emissions from the facility to 65 dB (A-weighted Leq) from 11 p.m. to 6 a.m. Board Op. at 27. The Board recognized that Clifford-Jacobs generally opposed the imposition of a site-specific noise limit because, Clifford-Jacobs asserts, it could curtail the facility's operational flexibility. *Id.* But because the facility has not in recent history operated all 14 of its hammers at one time, the Board found that imposing a 65 dB (A-weighted Leq) nighttime standard at the control point would not unduly constrain the facility and was not inconsistent with Board precedent. *Id.*

Regarding notice, the Board expressed concern that because Clifford-Jacobs had not been in contact with the affected homeowners regarding its proposal, affected residents might not be aware of Clifford-Jacobs' request for extended hours of operation. Based on a list supplied by Clifford-Jacobs of 40 Wilber Heights properties that may be subject to sound emissions from the facility exceeding the default nighttime limit, the Board added these property owners to the notice list for this proceeding. Board Op. at 23. The Board emphasized that any person could submit comments or request a hearing on Clifford-Jacobs' proposal within the first-notice comment period. *Id.*

SUMMARY OF FIRST-NOTICE COMMENTS

Helen Pheris (PC 3)

On May 18, 2015, the Board received a comment from Ms. Pheris, who has lived a half block from the Clifford-Jacobs facility for 62 years and has "endured all the inconvenience and damage [the facility] has caused our home and house." PC 3 at 1. She and her husband have stayed in the area because her husband worked for the nearby railroad for 47 years. *Id.* She further states that she votes "no" on Clifford-Jacob's proposal because "we would like to be able to sleep at night." *Id.* She adds that "[t]he hammers are equal to a small earthquake." *Id.*

Clifford-Jacobs (PC 4)

Clifford-Jacobs filed its response on June 29, 2015, in which it addresses three issues raised by the Board at first notice, concerning (1) the number of employees at the facility; 2) apparent discrepancies between Clifford Jacobs' post-hearing comments and Dr. Schomer's hearing testimony; and 3) the facility's correct address. PC 4 at 1-3.

Regarding the number of employees, Clifford-Jacobs notes the Board's observation that Clifford-Jacobs provided three different employment figures in the course of this proceeding. PC 4 at 1. The original proposal stated that approximately 108 persons were employed at its facility, whereas the pre-filed testimony stated the number was 114, and Clifford-Jacobs' post-hearing comments put the number at 115. *Id.* Clifford-Jacobs asserts that at the time each statement was given, the number was correct. *Id.* As of June 23, 2015, the correct number is 110; but, Clifford-Jacobs adds, that number "fluctuates from time to time." *Id.* at 2.

The apparent inconsistency between Dr. Schomer’s testimony and Clifford-Jacobs’ post-hearing comments relates to the contention that the incremental contribution of all 11 of the smaller hammers combined would be only approximately 2 dB. *Id.* at 2. Clifford-Jacobs contends that the Board may have misunderstood Dr. Schomer’s testimony. Clifford-Jacobs explains that Dr. Schomer stated that, “If we had everything [i.e., “all fourteen of them”] operating at once, it would be 2 dB higher.” *Id.* at 3. According to Clifford-Jacobs, this testimony makes clear that adding 11 of Clifford-Jacobs’ forging hammers to the three larger ones would increase noise levels by only 2 dB—more precisely, 1.6 dB, as set forth in Clifford-Jacobs’ post-hearing comments (PC 2). *Id.* at 2-3.

Regarding the facility’s address, Clifford-Jacobs notes, first, that the facility has not moved. PC 4 at 3. *Id.* But, Clifford-Jacobs adds, the facility’s address has been variously referred to over the years as either “North Market Street” or as “2410 North Fifth Street, Champaign.” *Id.* Clifford-Jacobs explains that the latter address is the more “commonly preferred address for postal deliveries.” *Id.*

Clifford-Jacobs concludes that it is “gratified” that the Board “has generally agreed that that the relief sought in this proceeding is warranted.” PC 4 at 3. Clifford-Jacobs also appreciates that the Board “understands the importance of encouraging responsible and practical environmental stewardship.” *Id.* at 3-4.

Wilber Heights Residents (PC 5)

As noted above, Mr. and Mrs. Kates’ letter submitted to the Board on June 30, 2015 was signed by them as well as 24 other Wilber Heights residents. The residents ask that their letter be treated as a public comment and an “objection” to Clifford-Jacobs’ proposal. PC 5 at 1. The residents note that although Mr. and Mrs. Kates’ home is visible and located directly across from, and approximately one block south of, Clifford-Jacobs’ facility, they did not “receive physical notice from Clifford-Jacobs as [the Board] required of them.” *Id.* at 1, 4. Rather, Mr. and Mrs. Kates first received notice of Clifford-Jacobs’ proposal from family members who live in the interior of Wilber Heights, shielded to some extent by attenuation by exterior houses. *Id.*

According to the residents, this demonstrates that Clifford-Jacobs did not make a good faith effort to contact the residents “most directly impacted” by the facility’s proposal, hindering the residents from participating in the comment period of this rulemaking. PC 5 at 1, 4. By doing so, the residents continue, Clifford-Jacobs is “circumventing the spirit of the comment period” and “merely paying lip service” to the Board’s concern that persons residing near the facility, who would have to “liv[e] with sound emissions during the proposed expanded hours,” might lack notice of the proposed amendments. *Id.*, citing Board Op. at 23 (Apr. 16, 2015). The residents ask that the Board notify them of any “future comment periods or hearings.” *Id.*

The residents next address noise generated by the facility. PC 5 at 1. They point to Dr. Schomer’s testimony that the forging process “generates sounds” propagating a “boom” sound. *Id.* This “sonic boom,” the residents add, produces a “wave that shakes the foundation of the homes closest to the facility.” *Id.* Clifford-Jacobs, the residents add, has “under-exaggerated the

effect” of the “sonic boom” on Wilber Heights neighbors. *Id.* at 4. Citing the allowable sound levels for forging operations in Section 901.105(b) and (c), the residents assert that it is unclear whether these numeric limits “relate[] to” the “boom” or the “shis” sound that forging operations generate. *Id.* The residents’ concern regarding “overnight operations” at the facility is “the sonic boom created by” the highly-impulsive sounds emanating from the facility. *Id.*

The residents state that the Board recognized that Clifford-Jacobs’ proposed amendments, if approved, could result in “unwarranted annoyance and speech and sleep interference.” PC 5 at 2. They contest the Board’s reasoning that the lack of any evidence in this proceeding of complaints about noise from the facility “may indicate a lack of annoyance.” *Id.* The residents assert that any lack of complaints is attributable solely to the limited hours during which Clifford-Jacobs currently operates; many residents work during the day and extend their nighttime activities to around 11 p.m. *Id.* Thus, the residents state that the current level of operations, “while at times annoying,” generally does not “affect sleep patterns” and allows the affected residences to “remain still livable.” *Id.* at 1, 2. But, according to the residents, extending Clifford-Jacobs’ allowable hours of operations beyond that would “most assuredly cause” sleep deprivation and “other issues” identified by the Board. *Id.*

The residents acknowledge that the facility was operating when “some, if not all, of the current residents purchased their property.” PC 5 at 2. They add that the existing limits on the allowable hours of operation were a “major inducement” for residents to purchase, maintain, and “improve upon” their properties as permitted by applicable zoning ordinances. *Id.* at 2; *see also Id.*, Attach. (photographs of Wilber Heights residence). According to the residents, the owners of the house shown in the photographs clearly “value their property”, and they can attest that noises from other commercial and industrial operations in the vicinity, including the railroad, do not “match the duration nor the pronouncement of the sonic boom created in the forging process.” *Id.* at 2. The residents further assert that during forging operations the “sonic boom is continuous” at intervals of approximately five seconds, for “several hours” at a time. *Id.*

Next, the residents contend that Clifford-Jacobs’ representations regarding applicable zoning restrictions for Wilber Heights are “out of date and in error.” PC 5 at 2. The residents maintain that because of “articles like” the 2010 local newspaper article on Wilber Heights, Champaign County has amended its zoning ordinances to now allow residents to “rebuild and improve upon their properties up to 1500 square feet” and to allow the expansion of accessory buildings. *Id.* Further, the amended ordinances permit repairs and alterations exceeding 10% of a property’s value. *Id.* The residents state that these changes, as reflected in the zoning board’s committee notes, demonstrate “awareness” that under applicable zoning restrictions, Wilber Heights property values have “severely declined.” *Id.* Accordingly, the residents assert, extending Clifford-Jacobs’ allowable hours of operation as requested would be directly contrary to these attempts by the county to “rectify” the deterioration of property values. *Id.*

The residents also address the gradual reduction in the number of Wilber Heights houses used as residences. PC 5 at 2. They argue that at first notice, the Board properly focused on the projected effect of the proposed rule amendments on Class A (*e.g.*, residential) land in Wilber Heights. *Id.* Citing Section 901.105(e) of the Board’s noise rules (35 Ill. Adm. Code 901.105(e)), the residents contend that the Class A classification “remains intact” despite any

subsequent changes in land use, unless the changes would result in less restrictive limitations on Clifford-Jacobs' operations. *Id.* The residents argue that the preservation of the existing land use classification is relevant, the residents maintain, because the Board "seem[ed] to focus" on the existence of the nearby railroad at first notice. *Id.* The railroad existed at the time the "current [highly-impulsive noise] rules were put into place"; this means the railroad is not a subsequent change that would permit adoption of less stringent limits on an existing forge like Clifford-Jacobs. *Id.* at 2-3.

Regarding other area noise sources identified by Dr. Schomer, the residents assert that noise from those sources is "much more widely dispersed, pronounced and prolonged by the impulsive sounds" that the facility generates. PC 5 at 3. The residents add that Dr. Schomer has "greatly exaggerated the current noise levels" in Wilber Heights and "misstated the overall character" of the area surrounding Clifford-Jacobs' facility. *Id.* at 4. The residents also note Dr. Schomer's testimony reporting that his most recent visit to Wilber Heights revealed increased truck traffic, including tractor trailers and a garbage truck. *Id.* Contrary to this testimony, the residents insist, no noise "within the area," including the railroad, "is more pronounced than the sonic boom generated by Clifford-Jacobs." *Id.* Emissions from other area sources are "generally brief" and do not generate a "pulse that shakes the foundation of the house. . . ." *Id.*

In addition, the residents take issue with the comment by Mr. and Mrs. Gaines, which was attached to Clifford-Jacobs' proposal, that noise from the facility does not bother them any more than noises from other companies and traffic. PC 5 at 3; *see also* Prop. at Group Exh. E. The "sonic wave" produced by the facility is attenuated with distance from the facility, the residents suggest, so by the time the "wave" reaches the Gaines' residence, the residents, continue, it has "mostly dissipated." PC 5 at 3. The Gaines' assessment, according to the residents, therefore does not bear on whether other residents will face sleep deprivation and other health problems under the proposed amendments. *Id.*

Further, the residents read "paragraph (d)(2)(F) of Section 901.105" of the Board's noise regulations as imposing requirements that must be met before the Board may adopt a site-specific allowable operational level for a forging facility. PC 5 at 3. Without "committee comments," the residents "can only surmise" that these requirements set out a balancing test that weighs the "rights of the [affected] residents" against the "economic considerations of the company." *Id.* Adopting Clifford-Jacobs' proposed amendment would cause sleep deprivation and "related health risks," imposing a "significant hardship" on affected residents. *Id.* On the other side of the scale, the residents continue, the amendments should not be adopted unless Clifford-Jacobs' "economic need" for them is "immediate and compelling." *Id.* The residents characterize Clifford-Jacobs' claimed need for the proposed amendments as a "vague notion" that the facility requires operational flexibility "in case it should ever get more business." *Id.* According to the residents, any need is not "in any sense immediate" and Clifford-Jacobs has not demonstrated an "economic necessity" sufficient to satisfy Section 901.105. *Id.* at 3, 4. The residents note the Board's observation that Mr. Ray did not specify why the facility was unable to meet market demand when he stated that it could not do so, but also asserted a need for the facility to operate a third shift. *Id.* at 4. Section 901.105, the residents continue, requires "more than such an assertion without proper foundation" to obtain a site-specific operational level. *Id.* The residents also recite testimony that a lack of hammer-trained crews limits the number of

hammers that may be operated simultaneously, and that granting relief Clifford-Jacobs seeks would enable the facility to hire up to 72 additional workers. *Id.* The residents maintain that Clifford-Jacobs has not explained why it “cannot incorporate” such additional workers “within [its] existing shifts.” *Id.*

In addition, the residents assert that Clifford-Jacobs does not currently operate a second shift and laid off the employees who used to operate the shift, and has recently laid off seven additional workers. PC 5 at 3-4. The residents contrast these developments with Clifford-Jacobs’ claims that absent the proposed amendments the facility would not be able to hire additional workers and might have to relocate, costing well-paying jobs and revenues. *Id.* at 4. The residents agree that Mr. Ray did not specify why, as Clifford-Jacobs claims, it was unable to meet customer demand at various times. *Id.*, citing Board Op. at 8. The residents “agree” that Clifford-Jacobs has not explained why it cannot meet customer demand under its existing site-specific operational level. *Id.* at 4. The residents ask why, if Clifford-Jacobs needs to expand its operations, the facility does not currently run a second shift and why it has not recalled laid-off workers. *Id.* The residents further note that Clifford-Jacobs is seeking permission to operate during nighttime hours—hours during which, the residents add, “nearly all existing forgers with site-specific rules” are not permitted to operate. *Id.*

Clifford-Jacobs’ Response to Hearing Officer Order of July 13, 2015 (PC 6)

On September 14, 2015, Clifford-Jacobs responded to the July 13, 2015 hearing officer order directing Clifford-Jacobs to address the comments of the Wilber Heights residents (PC 5), and the Board’s questions included in Attachment A to the order. PC 6 at 1; Hearing Officer Order (Jul. 13, 2015). Because the issues raised by the residents are mirrored in the Board’s questions in Attachment A, Clifford-Jacobs states that it would address both in the same response. *Id.*

Clifford-Jacobs first addresses the residents’ first claim that Clifford-Jacobs does not now operate a second shift and has laid off seven additional employees. PC 6 at 1. Clifford-Jacobs responds that while this allegation is true, “the purpose of this proceeding is to enhance, not impair, Clifford-Jacobs’ ability to meet the needs of its rapidly evolving industry.” *Id.*

In the hearing officer order of July 13, 2015, the Board asked two questions related to the issue of existing staffing. First, Clifford-Jacobs was asked to supply the “[c]urrent number of employees working with the forging equipment in building 4, including those trained to run the hammers, and [to] discuss the extent to which this does or tends to vary annually.” Hearing Officer Order at 2 (Jul. 13, 2015); PC 6 at 1. Clifford-Jacobs states that it has provided this information “repeatedly,” most recently on June 26, 2015. Clifford-Jacobs explains that because the number of employees at its forge operation is a function of demand and not an annual cycle, its employee head count varies from time to time. *Id.* at 2. Clifford-Jacobs reminds that its “facility” is a made-to-order or “job” shop, as opposed to a captive or catalog forge, meaning it only makes a product when a customer has submitted an order. PC 6 at 1.

Clifford-Jacobs expresses confusion as to the focus of the question regarding the number of employees in building 4. PC 6 at 2. According to Clifford-Jacobs, there are five workers

typically employed in directly manning a hammer during production, but others may not be in building 4, such as forklift operators and those cutting the steel, but are nonetheless critical to those operating the hammers. *Id.*

The second question posed to Clifford-Jacobs by the Board also related to the issue of staffing. The Board requested that Clifford-Jacobs supply the “number of hammer-trained employees that currently work on each shift.” Hearing Officer Order at 2 (Jul. 13, 2015); PC 6 at 3. Clifford-Jacobs again expresses confusion by the question, believing this information had been provided previously. PC 6 at 3. Clifford-Jacobs reports that there “is only one shift in operation at the present time, and a typical crew serving a single hammer is five.” *Id.* Clifford-Jacobs notes that employees working on a hammer are trained to run the hammers they are servicing, although their role can vary. But, Clifford-Jacobs adds, if by “hammer-trained employees” the Board means “to refer solely to the person who specifically controls when a hammer strikes a die, that number was nine [9] as of August 6, 2015.” *Id.*

The second issue raised by the residents and in the hearing officer order was that Wilber Heights “has several potentially significant noise sources within it,” and that the neighbors allege the facility generates a “sonic boom” sound. PC 6 at 3. The Board requested that Clifford-Jacobs discuss the comparative differences in noise levels in Wilber Heights including the levels produced by Clifford-Jacobs. Clifford-Jacobs first asserts that there is no evidence of a “sonic boom” generated by the facility; there are “no aircraft or devices employed by Clifford-Jacobs that travel faster than the speed of sound, and thus no ‘sonic boom.’” *Id.*

Clifford-Jacobs explains that the sounds emitted by the facility for the last 90 years are the “boom-shish” sounds of forging, and that the “shish” sound is emitted by the steam vents and the “boom” sound by the impact of the forge hammer on the receiving object. PC 6 at 4. Clifford-Jacobs states that no complaints have been filed against Clifford-Jacobs for its “boom” sound in the 90 years of the facility’s operation. Clifford-Jacobs suspects the residents may be confusing the “boom” sounds with ground vibrations. *Id.*

Regarding comparative differences in noise levels, Clifford-Jacobs first states that noise levels and attenuation are a function of the “sound spectrum involved, the sound’s energy and duration, ambient air temperature and wind direction, the presence or absence of attenuating structures and surfaces, and the distance between the source and the receptor.” PC 6 at 4. Clifford-Jacobs explains that its facility is stationary and at the edge of Wilber Heights, while other sources of noise are mobile or scattered throughout Wilber Heights at various locations. There may be no attenuation due to the close proximity of the noise source to the homes and the lack of structures to attenuate the sounds. *Id.* For example, a Google Earth aerial photo provided by Clifford-Jacobs shows Mr. and Mrs. Kates’ home as having “virtually no separation and few if any attenuating structures or trees, etc. between their home and several adjacent noise sources to the east . . . and adjacent commercial/industrial properties to the south, southwest, and northwest.” PC 6 at 5.

As to specific A-weighted noise levels emitted by other area noise sources, Clifford-Jacobs states that it “did not do what the regulations do not require” and therefore has no such specific data. PC 6 at 5. Also, Dr. Schomer advises that the “technical challenge of attempting

to study ambient noises from every other noise source in the neighborhood would be extremely expensive and time-consuming.” *Id.*

Clifford-Jacobs sees a challenge in answering the Board’s question about the “boom” sounds due to the “current state of the science for measuring noise emissions as embodied in the current Board regulations, and indeed, in all recognized noise standards, world-wide.” PC 6 at 6. Clifford-Jacobs explains that in about 1980, the Tilton Foundry in Danville petitioned the Board to move to a one-hour Leq as its metric rather than the instantaneous metric that was in place. Leq, Clifford-Jacobs adds, is “used by the federal government for assessment of virtually all forms of noise, is recommended by national and international standards for noise assessment, and is used throughout the EU for noise assessment, as well as by almost every other country in the world.” The Board properly concurred with the Tilton request and “the property line noise regulations were changed from instantaneous to one-hour Leq.” *Id.*

Further, Clifford-Jacobs cites Dr. Schomer’s explanation that Leq is really a measure of the total sound energies in an hour; the sum of each single event sound energy. When converted to a decibel, a single event sound energy is the sound exposure level (SEL). Leq is formed by converting all of the single event SELs to their corresponding sound energies, calculating the sum of those that occur in an hour, dividing by 3600 (the number of seconds in an hour), and then converting back to a decibel.” PC 6 at 6.

Clifford-Jacobs argues that the Board’s questions regarding the “boom” sound “appear to presume an ‘instantaneous metric’ rather than a one-hour Leq.” PC 6 at 6-7. Clifford-Jacobs further suggests that the questions appear to be concerned with ground vibrations that “generally fall outside the audible range of human hearing embodied in the (A-weighted decibel) level standard embodied in the Board’s regulations since the early 1980s.” *Id.* at 7. Clifford-Jacobs states that it “should not be understood as denying that its facility is a significant noise source; it is.” *Id.* However, Clifford-Jacobs contends that some of the questions posed by the Board “appear unrelated to the criteria embodied in the Board’s regulations.” *Id.*

The third allegation by the residents referenced in the hearing officer order is that Clifford-Jacobs “has not justified its current site-specific operational level overnight in lieu of complying with its default limit.” PC 6 at 7. The Board’s question asks how future operations would be affected if nighttime limits of either 53.5 dB or 58.5dB (A-weighted Leq) were applied. Clifford-Jacobs states that the immediate effect of using either the 53.5 or 58.5 dB standard has been explained by Dr. Schomer. Under this proposal, 24 residences will be at or in excess of 53.5 dB (A-weighted Leq) nighttime limit, and 12 will be in excess of the 58.5 dB (A-weighted Leq) daytime limit. *Id.*

Clifford-Jacobs also asked Dr. Schomer to further quantify the effects on Clifford-Jacobs if the Board were to depart from precedent and impose nighttime limits expressed in terms of dB (A-weighted Leq). PC 6 at 7. His efforts were reported in Clifford-Jacobs’ post-hearing comments (PC 2 at 5-7) and in the 8 “Control Site Calculator” models developed by Dr. Schomer and provided as Attachment F to those comments (PC 2 Attach. F). *Id.* at 8. Dr. Schomer explains that the Leq metric used by the Board “compresses the scale so that it is very

sensitive to the loudest noises.” *Id.* Dr. Schomer found it “somewhat troublesome to see the hearing officer and staff questioning the use of the metric prescribed by the Board.” *Id.*

To elaborate on this principle, Dr. Schomer produced graphic representations of two “what if” scenarios. PC 6 at 8 & Attach. B. The conclusion of his analysis is that “imposing a numerical standard basically places a cap on the use of the bigger hammers during those hours of the day when the numerical standards apply.” *Id.* at 8. The effect of any such cap on the smaller hammers is negligible. *Id.* at 8-9. Clifford-Jacobs argues that the consequence of either a 53.5 dB or 58.5 dB limit is to restrict, to a greater or lesser degree, Clifford-Jacobs’ ability to “attain the flexibility it needs to meet the demands imposed by the marketplace.” Without such flexibility, Clifford-Jacobs asserts, the facility’s “survival is in doubt.” *Id.* at 9.

Clifford-Jacobs also identifies two troubling precedents of imposing a 53.5 dB or 58.5 dB limit on its nighttime operations. PC 6 at 9. First, according to Clifford-Jacobs, doing so “would in effect ‘move the goalposts’ for a forging facility located for almost 90 years in an industrial setting zoned at all times for industrial and commercial uses, because of the presence of subsequent non-compliant uses encroaching within that zone.” *Id.* Second, such limits would be selectively applied to just one of the forge operations, Clifford-Jacobs, but its competitors would not be subject to a similar numerical dB (A-weighted Leq) nighttime limit. *Id.*

Clifford-Jacobs states that the existence of nonconforming uses in Wilber Heights is “directly relevant” to this discussion. PC 6 at 9. The default nighttime noise limit for existing forgers for Class A receiving land is 53.5 dB (A-weighted Leq), while the limit for Class B receivers at all times is 64.5 dB, and there is no limit for Class C land. So, if the residences of Wilber Heights were “not situated in an industrial/commercial area,” Clifford-Jacobs would be subject to a nighttime limit of 64.5 dB, or to no limit at all. *Id.*

Clifford-Jacobs next discusses the “extensive” railroad switching yard that is adjacent to Clifford-Jacobs’ facility and Wilber Heights and that operates 24 hours a day, seven days a week. PC 6 at 9-10, citing Exh. 8 at 6, B3. Clifford-Jacobs notes that common noise reference sources report that the “noise from a typical diesel locomotive train traveling 45 mph as measured from a distance of 100 feet is 83 dB.” *Id.* at 10. Clifford-Jacobs next asked Dr. Schomer to calculate the sound impacts of the railroad switching yard on the Kates’ residence, which is located approximately 450 feet west of the switchyard. Dr. Schomer calculated the impact at approximately 63.3 dB (A-weighted one hour Leq). *Id.*

The residents’ fourth allegation is that Clifford-Jacobs’ need for the requested relief is not immediate. The Board asked Clifford-Jacobs “[o]f the three largest hammers (25,000 lbs, 20,000 lbs, and 12,000 lbs), what is the greatest number of these that have been in operation in the past decade at the same time, on the first shift, and on the second shift?” Hearing Officer Order at 2 (Jul. 13, 2015); PC 6 at 10. Clifford-Jacobs states that it finds it difficult to respond to this “unsubstantiated assertion by Mr. & Mrs. Kates.” PC 6 at 11. General Manager Jason Ray described in testimony specific situations where “limits placed on Clifford-Jacobs came at the cost of business, which went elsewhere, some of it permanently.” *Id.* Clifford-Jacobs finds it impossible to “prove” or quantify its need for immediate relief when business was lost before it

was begun, “particularly in the context of a made-to-order forging operation, where loss of one business order can metastasize into loss of much more” *Id.*

Clifford-Jacobs next responds to the Board’s question about the greatest number of the three larger hammers that have been in operation in the past decade at the same time, on the first shift, and on the second shift. Hearing Officer Order at 2 (Jul. 13, 2015). Clifford-Jacobs states that as many as 6 hammers were in operation on the first shift and as many as 3 hammers were in operation on the second shift. PC 6 at 11. Clifford-Jacobs further explains that “in most cases, all three of its largest hammers were usually in operation during some or all of those shifts” because in more recent years, the products produced by the larger hammers are the products most in demand. *Id.*

Clifford-Jacobs deems the Board’s question as to simultaneous operation “inherently fraught with ambiguity.” PC 6 at 11. Clifford-Jacobs notes that hammer blows from various hammers are not orchestrated with each other, so as to strike in unison or for the same period of time. *Id.* Evidence showing that as many as 6 hammers were in operation on the same shift does not mean that all 6 hammers were operating simultaneously throughout the entire shift. *Id.* at 10-11. A number of variables, including differences in the size of jobs being performed, the size and capacity of the hammers, and the resulting need for maintenance of the hammers necessarily mean the hammers operate independently of each other. *Id.* at 12. Clifford-Jacobs notes that because of the greater pressures exerted by these larger hammers, there are longer down times for maintenance; thus, the likelihood of all 3 of the largest hammers running simultaneously for an extended time is “remote” *Id.*

Clifford-Jacobs stresses that the “point of this rulemaking is not to continue operations as they have been conducted for the last thirty to ninety years, but to allow Clifford-Jacobs to expand its hours to meet the changing demands of an evolving marketplace.” PC 6 at 12. Clifford-Jacobs adds that in a “demanding marketplace which has produced a shrinking number of domestic suppliers . . . and situations where the limits placed upon Clifford-Jacobs came at the cost of business,” the need for flexibility is “existential.” *Id.* at 12-13.

Clifford-Jacobs also responds to the residents’ assertion that no “other noise generates a pulse that shakes the foundation of the house,” and the Board’s related question whether Clifford-Jacobs had examined the issue of the effects of ground vibrations on nearby structures. PC 6 at 13, citing Hearing Officer Order at 3 (Jul. 13, 2015). Clifford-Jacobs responds that, consistent with the Board’s regulations, Clifford-Jacobs’ examination has been confined to sound emissions rather than “ground vibrations.” PC 6 at 13. Dr. Schomer further explains that the Board’s rules for impulsive sound and for forges are written in terms of the “1-hour, A-weighted, Leq.” *Id.* This metric does not correlate with sound-induced building vibration and “rattles.” Dr. Schomer opines that it is not clear that the Board has the legislative authority to regulate building vibration excited by sound, and that it certainly does not appear to have the authority to regulate building vibration excited through the ground. *Id.*

The Board asked Clifford-Jacobs to discuss whether ground vibrations from all 10 or all 14 hammers operating at one time could “shake the foundation” of a nearby house and, if so, whether these vibrations are attenuated with increasing distance from the Clifford-Jacobs’

facility. PC 6 at 14, citing Hearing Officer Order at 3 (Jul. 13, 2015). Clifford-Jacobs states it has made no “formal study” of ground vibrations. PC 6 at 14. Dr. Schomer “has confirmed that ground vibrations or ‘pulses’ do indeed attenuate with distance rather than go on forever.” *Id.* Clifford-Jacobs surmises that the three largest hammers account for the most noticeable vibrations and that the addition of smaller hammers would have little if any effect on ground vibrations that would shake houses in Wilber Heights. *Id.*

The Board also requested that Clifford-Jacobs comment on whether the ground vibrations mentioned by the residents are caused by the sound emanating from the impact of hammers on the material being forged, or by the transfer of mechanical energy from the impact of the hammers to the ground, and whether there are ways to mitigate adverse effects from ground vibrations. PC 6 at 15, citing Hearing Officer Order at 3 (Jul. 13, 2015). In response, Clifford-Jacobs reminds that “for the purposes of the Board’s current noise regulations, the phenomenon of sound emissions is distinct from the ground vibrations triggered by the transfer of mechanical energy.” PC 6 at 15. As for mitigating ground vibrations, Clifford-Jacobs states that it knows of no strategies that would isolate the “force of the hammer blows from the ground beneath it.” *Id.*

The Board asked Clifford-Jacobs to comment on whether and how the applicable ANSI standards under 35 Ill. Adm. Code 900.103 address the measurement of sound in the frequency range that would be observed as sound that “shakes the foundation” of nearby homes. PC 6 at 15, citing Hearing Officer Order at 3 (Jul. 13, 2015). Clifford-Jacobs notes that Dr. Schomer had reported that the A-weighted, 1-hour Leq standards, including the ANSI standards referenced by 35 Ill. Adm. Code 900.103, are professionally accepted and in use around the world and simply do not apply to the issue of ground vibrations. *Id.*

The sixth issue raised by the Board relates to the most recent amendments to the Champaign County zoning ordinance, which the Board asked Clifford-Jacobs to provide a copy of as well as to specify the date of the last amendment. PC 6 at 16, citing Hearing Officer Order at 3 (Jul. 13, 2015). Clifford-Jacobs provided the relevant portions of the Champaign County zoning ordinance, namely, Sections 8 and 9. Changes to these sections were adopted April 21, 2011, during Clifford-Jacobs’ preparation of its proposal. The Champaign County zoning ordinance provides that these amendments apply to all nonconforming uses within the county, including Wilber Heights residences. PC 6 at 16 & Attach. C. Clifford-Jacobs suggests that the purpose of the most recent amendments was to “prevent undue hardship” for residents whose homes may have been damaged by fire or deterioration such that limited repairs are necessary. PC 6 at 16. Clifford-Jacobs emphasizes, however, that these amendments did not change Wilber Heights residences into conforming uses. *Id.* The amendments also did not alter the intent of the ordinance, stated in Section 8, to “permit these non-conformities to continue until they are removed, except as otherwise herein provided, but not to encourage their survival.” *Id.* at 17. The ordinance further “declare[s]” such non-conformities to be “incompatible with” permitted structures and land uses in the involved districts. *Id.* Clifford-Jacobs states that “it remains the law” that a structure abandoned for 180 days or put to a conforming use—as several Wilber Heights structures have been—cannot be returned to residential use. *Id.*

The seventh issue the Board asked Clifford-Jacobs to address is the decibel level that would exist at the control point and at the nearest residence if only the three largest hammers

were in operation at one time, and whether that level would be sufficient to shake the foundations of homes closet to the facility. Hearing Officer Order at 3 (Jul 13, 2015); PC 6 at 17. Clifford-Jacobs argues that the first question “again blurs the line” between mechanical vibrations and sound, *i.e.*, decibel levels. PC 6 at 17. Clifford-Jacobs contends that the decibel levels emanating from each of the three largest hammers is already in the Board’s possession and would enable the Board to “gauge the relative impacts and contributions of virtually any combination of hammers that would be permissible under a site-specific rule limiting night-time operations in terms of decibels rather than hours of operation.” *Id.* All of the calculators were linked to the control point, which was nearer to the hammers than any of the residences. *Id.* at 17-18.

The eighth issue addressed by the Board concerns the residents’ reference to a “sonic boom” allegedly generated by the facility. Hearing Officer Order at 2 (Jul. 13, 2015); PC 6 at 18. Two distinct questions were posed to Clifford-Jacobs. Noting that Clifford-Jacobs’ attempt to install silencers dates back to the early 1980s, the Board requested that Clifford-Jacobs update the record with more current information on using mufflers and silencers to control sound emissions from impact forging hammers. Hearing Officer Order at 4 (Jul. 13, 2015). Clifford-Jacobs claims this information was previously provided through the testimony of Mr. Martz, as summarized in the Board’s first-notice opinion. PC 6 at 18. Mr. Martz testified that Clifford-Jacobs’ efforts in the late 1980s to install silencers had failed, and that he had attended numerous forging industry association conferences since then and had never heard anyone claim to have successfully used any such sound mitigation devices on the kind of “impact producing equipment” Clifford-Jacobs has. *Id.* Clifford-Jacobs adds that Dr. Schomer was also unaware of any equipment that “could withstand the routine shocks emanating from a drop forge hammer, and dismissed as economically unreasonable and technically infeasible the suggestion of any sound barrier.” *Id.*

Clifford-Jacobs notes that the Board’s first-notice opinion and order requires that Clifford-Jacobs keep abreast of any new sound abatement technologies and report to the Board every 10 years on its findings as a condition of its revised site-specific standard. PC 6 at 18-19. Clifford-Jacobs believes that “requiring it to investigate new technologies as a condition of maintaining a more relaxed site-specific standard over a period of years is not unreasonable.” *Id.* at 19. Clifford-Jacobs adds that under this directive, Clifford-Jacobs could keep abreast of and periodically report on advances in sound control technologies in a “thorough and studied manner.” *Id.* at 20. Clifford-Jacobs asserts that given the “unique demands of the forging process,” there is “ample reason” to be skeptical of claims that a particular device could meet the facility’s needs. *Id.* Clifford-Jacobs adds that any manufacturer touting such devices should be required to demonstrate several things. These would include showing that the manufacturer has actual experience constructing steam vent silencers for 12,000-lb or larger drop forge hammers, and absent that experience, what the manufacturer believes it could offer in Clifford-Jacobs’ “drop forging environment”; the cost of installing and maintaining the manufacturer’s product; whether the product will achieve a specific level of sound reduction; and whether the manufacturer would warrant durability for a particular number of years in Clifford-Jacobs’ “forging environment.” *Id.* at 19.

Nonetheless, Clifford-Jacobs asked Dr. Schomer to respond to the Board's request. PC 6 at 19. Dr. Schomer confirmed that the state of the art of mufflers and silencers for forging impact hammers has "not advanced beyond the points described by Mr. Martz and Dr. Schomer previously." *Id.* & Attach. D (investigation summary). Dr. Schomer advised that in addition to what is technically feasible and economically reasonable, what kind of sound control would be effective is an issue. He added that even "herculean silencing measures" would confer only an "extremely limited benefit," if any. *Id.* at 19-20.

Clifford-Jacobs reminds that it is one of only about five forging operations left in the entire United States capable of producing the range of products Clifford-Jacobs produces. PC 6 at 20. Clifford-Jacobs argues that it is therefore "not surprising that there are no manufacturers of silencers with experience meeting the unique and demanding needs of this niche industry." *Id.*

The Board also asked Clifford-Jacobs to comment on whether the installation of silencers on steam-driven hammers would reduce the "boom" sound from the hammers mentioned by the residents. PC 6 at 20. Clifford-Jacobs states that "steam line silencers are designed to attenuate the higher-pitched, higher-energy sounds emitted from the steam vents atop the building's roof." *Id.* at 20-21. Clifford-Jacobs adds that such silencers have "no effect upon either the mechanical vibrations or the impact sounds of the hammers striking the dies." *Id.* at 21. Clifford-Jacobs states that, "[p]ut in layman's terms, the silencers in question address the 'shish' component, not the 'boom' component, of forging noises." *Id.* at 21.

Clifford-Jacobs also responds to the comment that Mr. and Mrs. Kates did not receive required "physical notice" from Clifford-Jacobs about its proposal. PC 6 at 21. Clifford-Jacobs asserts that this "claim is patently false, for at least three reasons." *Id.* First, the Board's regulations prescribe the manner of public notice, and the record is clear that Clifford-Jacobs complied with those requirements "to the letter." *Id.* Second, Clifford-Jacobs adds, the Board never required that Clifford-Jacobs provide "physical notice" to Mr. and Mrs. Kates or anyone else. *Id.* Rather, the Board decided to add affected residents of Wilber Heights to the notice list and send them a copy of the first notice opinion and order and directed Clifford-Jacobs to provide the Board with the names and addresses of owners of residences in the affected area. Clifford-Jacobs subsequently provided the Board with the names and addresses for 40 properties in Wilber Heights from Champaign County Assessor records. *Id.* Finally, following the Board's decision to add affected residents to the notice list, Clifford-Jacobs "reached out to its neighbors with its own letter," which is attached to Clifford-Jacobs' comment. *Id.* at 22 & Attach. E. Clifford-Jacobs reported that it received one response, from Mrs. Pheris, which was also provided to the Board (as PC 3) and referenced in the Board's questions to Clifford-Jacobs. *Id.*

BOARD DISCUSSION

Preliminary Matter

The Board first addresses a non-substantive issue: the correct address of the facility. As noted above, Clifford-Jacobs, in response to the Board's question at first notice, stated that although it has been cited differently, the "preferred" postal address is 2410 North Fifth Street.

PC 4 at 3. The order below inserts this address in the place of the current address in the site-specific rule (*i.e.*, North Market Street).

Notice to Affected Residents

The Board next addresses the residents' claim that they lacked adequate notice of Clifford-Jacobs' proposal and did not receive "physical notice from Clifford-Jacobs as [the Board] required of them." PC 5 at 1. Initially, the Board notes that the Board published notice of the September 2014 hearing in *The News Gazette*. Further, Clifford-Jacobs responds that it complied with applicable Board regulations on public notice and that the Board never required Clifford-Jacobs to provide "physical"—*i.e.*, personal—notice to any affected residents. As noted in the Board's first-notice opinion, generally neither the Act nor the Board's procedural rules require a rulemaking proponent to initiate contact with affected persons about the proposed rule or to convene stakeholder meetings. Board Op. at 23. Moreover, the Board never ordered Clifford-Jacobs to personally serve notice on affected residents of its proposal, the ensuing rulemaking proceeding, or Board and hearing officer orders in the proceeding. Rather, observing that the only notice would have been provided by the notice of hearing published by the Board in a local newspaper (*see* 415 ILCS 5/28(a) (2014)), the Board asked Clifford-Jacobs to supply the names and addresses of affected homeowners, which Clifford-Jacobs did in the form of property tax records (*see* PC 2 at 4 & Attach. D). In turn, the Board added the names on that list to the notice list in this proceeding, ensuring that affected owners will receive notice, if not of the proposal directly, of Board actions and hearing officer orders describing the proposed amendments. Board Op. at 23.

Unfortunately, for reasons that are unclear (*see* PC 6 at 21-22), Mr. and Mrs. Kates were not on the list provided by Clifford-Jacobs and, therefore, not on the Board's notice list (but have been added to it since the filing of their comment). Nevertheless, Mr. and Mrs. Kates state that they were notified of the Board's order by family members living within the interior of Wilber Heights. PC 5 at 1. In addition, Clifford-Jacobs reports that it sent a letter to affected residents, although it is unclear which neighbors received this letter. PC 6 at 22 & Attach. E.

Accordingly, the Board does not agree that affected homeowners lacked required notice of Clifford-Jacobs' proposal or that Clifford-Jacobs somehow "circumvent[ed] the spirit of the comment period." PC 5 at 1. Rather, the record shows that the residents fully availed themselves of the opportunity to file a comment on the first-notice proposal, and thus were not "hinder[ed]" from "participating in the comment portion of the proposed amendment." *Id.*

"Boom" Sounds and Ground Vibrations

Next, the Board addresses the residents' allegations that Clifford-Jacobs' forging operations generate a "sonic boom" that produces a "wave that shakes the foundation of the homes closest to the facility," and that granting the relief Clifford-Jacobs requests would "most assuredly cause the exact sleep deprivation and other concerns" cited in the first-notice opinion. PC 5 at 1-2. Regarding the "boom" sound, Clifford-Jacobs denies that the facility produces a "sonic boom," as the residents allege (*see, e.g.*, PC 5 at 2), and argues that no resident, until now, has lodged a complaint against Clifford-Jacobs for its "boom" noise; and that the residents may

be confusing the boom sound with ground vibration; and that the Board's noise regulations do not provide an "instantaneous metric" to deal with impulsive forging sounds. PC 6 at 3-7.

As to the "boom" noise, the Board does not agree with Clifford-Jacobs' technical reading of the residents' reference to a "sonic boom," as describing the sound of an object exceeding the speed of sound. Rather, the Board considers this to simply be another way to describe the "boom" sound identified by Dr. Schomer and Clifford-Jacobs. *See also, e.g.*, Exh. 8 at 3. And it is not clear to the Board that, as Clifford-Jacobs suggests, the residents may be conflating the "boom" sound with ground vibrations or a "wave" or "pulse" that the impulsive sounds of forging "propagat[e]." PC 5 at 1.

The Board agrees, however, that the boom sound and ground vibrations must be addressed separately. According to Dr. Schomer, when a forging hammer strikes a die, it causes both a "boom" sound and a ground vibration, which are "separate and distinct phenomena." PC 6 at 14. Dr. Schomer further explained that impulsive noises are measurable sounds, whereas ground vibrations, to the extent they involve sounds at all, "generally fall outside the audible range of human hearing embodied in the (A-weighted decibel) level" under the Board's noise regulations. *Id.* at 7.

The Board is persuaded that emission of the "boom" sound during overnight hours is not a basis to deny the relief Clifford-Jacobs seeks. In this rulemaking proceeding, the Board is not in a position to resolve issues of fact raised by the residents' allegations. Among these are the allegation that overnight operations "most assuredly" will interfere with sleep and pose health risks for Wilber Heights residents. PC 5 at 2. There are a number of factual disputes raised by this larger issue, none of which the Board can adjudicate here. For example, there is no basis to determine whether or not the evident lack of complaints about noise from the facility (*see* PC 6 at 4; Board Op. at 26) is in fact evidence of a lack of unreasonable interference, as Clifford-Jacobs contends. The residents have a plausible response: the lack of complaints is a consequence of Wilber Heights residents' typical schedules, consisting of work during the day and wakefulness until around 11 p.m. *See* PC 5 at 2. There is no way to test either factual assertion.

The Board believes caution is warranted in treating the residents' concerns as controlling in the context of this rulemaking. The Board finds that the residents' anticipation of a nuisance, however sincerely held, is not a basis on which to deny the relief Clifford-Jacobs seeks. The Board emphasizes that to the extent a third shift, if one ever is run, does cause an unreasonable interference with residents' sleep or other nighttime activities, the residents are free to seek relief through an enforcement action for noise pollution or other violation. *See* 415 ILCS 5/24 (2014) (prohibiting emission of noise "so as to violate any regulation or standard adopted by the Board under this Act"); 35 Ill. Adm. Code 900.102 (providing that no person may cause or allow the emission of sound beyond property lines so as to cause "noise pollution"); *id.* at 900.101 (defining "noise pollution" as the emission of sound that "unreasonably interferes with the enjoyment of life or with any lawful business or activity"). On a proper showing of a violation of the Act or Board regulations, the Board has broad authority to fashion an appropriate remedy, including but not limited to issuing a cease and desist order. *See* 415 ILCS 5/33(b) (2014); *see also, e.g.*, Discovery South Group, Ltd. v. PCB, 275 Ill. App. 3d 547, 557-561, 656 N.E.2d 51,

58-61 (1st Dist. 1995). In addition, as the Board noted in granting Clifford-Jacobs a site-specific operational level, “citizens have the right to initiate proceedings to change the rule”—*i.e.*, to file a new rulemaking proposal to amend any rule adopted here. Clifford-Jacobs, R83-25, slip op. at 3 (Dec. 6, 1984).

At first notice, the Board also imposed certain safeguards aimed at mitigating noise from extended operations. Chief among these, the Board imposed a limit on overnight operations of 65 dB (A-weighted Leq) at the control point—a level the Board previously effectively found protective of public health in granting a site-specific operational level to Clifford-Jacobs. *See* Board Op. at 26, citing Clifford-Jacobs Forging Co. Petition for a Site-Specific Operational Level Pursuant to 35 Ill. Adm. Code 901.105(d), R83-25, slip op. at 2-3 (Dec. 6, 1984). The residents do not explicitly challenge or question that limit or seek a lower cap. Rather, their objection appears to be to *any* operations from 11 p.m. to 6 a.m., whatever the resulting A-weighted Leq decibel levels for affected residents. This stands to reason: because the facility is not allowed to operate its forging hammers between 11 p.m. and 6 a.m., the residents have no experience with the effects of a cap. Moreover, while it may not provide immediate relief, the Board imposed at first notice a requirement that Clifford-Jacobs continue to investigate and report to the Board about available sound control technologies for its forging operation. *See* Board Op. at 22.

The Board also does not find it significant here that “nearly all existing forgers with site-specific rules are not permitted to operate” overnight. PC 5 at 4. The residents cite no Board case adopting or modifying a site-specific rule for an existing forging operation in which the petitioner proposed overnight operations and the Board rejected them. And any such decision would be of limited relevance in this matter, where the question is whether Clifford-Jacobs has justified its request for expanded hours of operation. This principle favors neither Clifford-Jacobs nor the residents. It does not support Clifford-Jacobs’ request, for example, that the Board adopted an amendment allowing another forging facility to operate 24 hours a day, 7 days a week (*see* Proposal of Vaughn & Bushnell Mfg. Co. of Amendment to a Site-Specific Rule, PCB 06-11 (Jan. 4, 2007)), any more than it helps the residents that this is the only such amendment adopted to date. At most, Vaughn & Bushnell reflects that Section 901.105(d) does not limit the hours of operation that the Board may adopt in a site-specific operational level for an existing forger. And while findings in the Board’s prior decision adopting the site-specific operational level for Clifford-Jacobs could be relevant, the residents point to no such findings, and, having reviewed the decision, the Board found none.

Turning to the issue of ground vibrations, the residents seem to tie these to sounds generated by the forging operation. *See, e.g.*, PC 5 at 3 (stating that “[n]o other noise generates a pulse that shakes the foundation of the house,” and referring to the “sonic wave” generated by Clifford-Jacobs”). Although the record provides no basis to question the existence of the vibrations or pulses, the record also does not reveal whether sound emissions are the source of the vibrations or pulses. This prompted the Board to ask Clifford-Jacobs whether the purported ground vibrations are a product of noise emanating from the impact of hammers on the material being forged, or by the transfer of mechanical energy from the impact of the hammers to the ground. *See* Hearing Officer Order at 3 (Jul. 13, 2015). Clifford-Jacobs responds that under the Board’s noise regulations, “the phenomenon of sound emissions is distinct from the ground

vibrations excited by the transfer of mechanical energy.” PC 5 at 15. Clifford-Jacobs adds that just as there are no known ways to quiet forging hammers, it assumes the same is true of efforts to prevent ground vibrations caused by hammer forges. *See id.*

Clifford-Jacobs persuasively contends that the distinction between sound-induced and mechanically-driven vibrations is inconsequential in this case. This is because the Board’s regulations on noise from impact forging simply do not address ground vibrations, whether excited by sound or the transfer of mechanical energy. Dr. Schomer explains:

The Board rules for impulsive sound and for forges are written in terms of the 1-hour, A-weighted, Leq. This metric does not correlate with sound-induced building vibration and rattles. A-weighting filters out the low frequencies that can be responsible for rattle (and the very high frequencies) in a similar fashion to human hearing at low to moderate sound levels. If the Board wants to know the possibility of having sound-induced vibration or rattles, then they need to conduct rule-making and add additional metrics that have not been there for the first forty-plus years. PC 6 at 13.

Clifford-Jacobs states that in layman’s terms, this means that when a hammer strikes a die, it causes both a “boom” sound and a ground vibration, and these “are, for all practical purposes, separate and distinct phenomena.” PC 6 at 14. Further, in response to a related Board question, Clifford-Jacobs states that the ANSI noise measurement standards incorporated in 35 Ill. Adm. Code 901.103 “simply do not apply to the issue of ground vibrations.” *Id.* at 15.

The Board agrees that the numeric standards of Part 901 applicable to existing forges do not regulate ground vibrations, whether excited by sound or mechanically. Thus, the Board finds that the existence of ground vibrations from Clifford-Jacobs’ forging operations is not an obstacle to the relief Clifford-Jacobs seeks. In making this finding, the Board does not determine whether ground vibrations could violate the nonnumeric noise standards in the Act and Board regulations.

Further, as noted above, the Board proposed at first notice to require Clifford-Jacobs to investigate sound mitigation devices for its forging operation and to report the results to the Board every 10 years. *See Board Op.* at 22. In response to the residents’ comment, the Board asked Clifford-Jacobs to update the record with more current information on the ability to mitigate noise from forging operations. Hearing Officer Order at 4 (Jul. 13, 2015). Apart from stating that this update was already provided in testimony, Clifford-Jacobs responds that Dr. Schomer did a search and concluded that the state of the art of mufflers and silencers to control sound emissions from forging hammers has not advanced beyond the points identified in testimony. *See PC 6* at 19-20 & Attach. D (stating, among other things, that “we can say at present” that “quieting” of a forge hammer and its steam sounds “has not been done”).

Based on these comments, the Board maintains its first-notice finding that Clifford-Jacobs has shown there is no technically or economically feasible means of abating noise from its forging operation. *Board Op.* at 22. And the Board remains committed to Clifford-Jacobs’ continuing its search for effective noise control options. Thus, as at first notice, the Board

proposes at second notice to require Clifford-Jacobs to investigate new technologies for sound abatement and operational measures to mitigate sound emissions from its facility, and to file with the Board a report every ten years on the findings of this investigation. *See id.*

Zoning and the Character of the Affected Area

The Board turns now to the implications, if any, of the most recent—April 2011—amendments to the Champaign County zoning ordinance, the existence of other noise sources in the area that may or may not have lesser impact on residents than Clifford-Jacobs’ facility, and related matters. Regarding the zoning amendments, the copies Clifford-Jacobs has supplied at the Board’s request (*see* PC 6 at Attach. C) largely confirm the residents’ assertions (*see* PC 5 at 2). Under the amended ordinance, owners of single family dwellings that are nonconforming uses of no more than 1,200 square feet in 1973 may generally expand up to a total building floor of 1,500 square feet. PC 6 at Attach. C § 8.2.1B1. They may also make repairs and replacements of any value (the limit previously was 10% of replacement value). *Id.* § 8.6B. The residents contend that these amendments reflect the zoning board’s awareness that zoning restrictions have led to declining property values in Wilber Heights. *See* PC 5 at 2.

Despite these facts, it is clear that under the amended ordinance the affected non-conforming uses remain nonconforming uses—*i.e.*, uses “incompatible with the permitted structures and uses of land” in the districts involved—and did not become conforming uses. PC 6 at 16-17 & Attach. C § 8, preamble. Moreover, Champaign County’s declared policy remains to permit the nonconforming uses to continue until they are removed, but “not to encourage their survival.” *Id.* Thus, Wilber Heights remains zoned for industrial use, which is consistent with the number of industrial land uses in the surrounding area. *See* Board Op. at 20; Exh. 8 at 1.

The Board also finds priority of location relevant here. Clifford-Jacobs has operated in the same location since 1923, before Wilber Heights developed. *See, e.g.*, Exh. 8 at 1. While this does not mean Wilber Heights residents enjoy no protection under the noise-related provisions of the Act and Board regulations, it does suggest that expanded industrial operations are a reasonable land use for the area. And although the Board appreciates that the residents may have purchased their houses in reliance on the “existing limitations on Clifford-Jacobs’ operations,” additional noise, even during nighttime hours, could not have been entirely unforeseeable in an area zoned industrial for more than 40 years.

As for other noise sources, the residents do not deny that the area surrounding the facility contains several such sources, including the railroad and switching yard, a concrete plant, a recycling center, a soybean processing plant, and a fire station. *See* Board Op. at 20; Exh. 8 at 6 & Annex B at 2-3. Nor do they dispute that, as stated at first notice, other noise sources such as Illini Recycling have their primary noise-making hours before Clifford-Jacobs is currently permitted to begin operations, and toward the latter part of the nighttime period during which Clifford-Jacobs seeks to operate. *See* Board Op. at 20; Exh. 8 at 6.

The residents stress, however, that “no other noise source”—including the railroad and switching yard—produces sound as “pronounced” as the “sonic boom” generated by Clifford-Jacobs, and none “generates a pulse that shakes” building foundations. PC 5 at 3. Should an

unreasonable interference arise, the residents, like any citizen affected by sound emissions, are free to seek redress under the Act. Nothing in this opinion should be read as narrowing or enlarging that right.

On a related issue, the residents maintain that in weighing the proposed amendments, the Board may not consider the decline in the number of affected Wilber Heights structures used as residences. Rather, the residents contend, under Section 901.105(e) (35 Ill. Adm. Code 901.105(e)), any such properties used for residential purposes before the highly-impulsive sound standards were added to the noise regulations, *i.e.*, Class A receivers for purposes of Part 901, must still be considered Class A uses even if they are no longer used for residential purposes. PC 5 at 2. And, the residents add, the existence of the nearby railroad and switching yard does not permit relaxation of applicable noise standards for Clifford-Jacobs since they were already in place when the highly-impulsive noise standards were adopted. *Id.* at 2-3.

Section 901.105(e) preserves the land use classifications in effect within a one-mile radius of an “existing impact forging operation” on September 1, 1982 (*i.e.*, the date that separates existing from new impact forging operations (35 Ill. Adm. Code 901.105(a)(4), (5)) for “enforcement” of the rules against an existing forging facility and any modification to the facility despite subsequent land use changes *unless* such changes would impose less restrictive limits on the facility. 35 Ill. Adm. Code 901.105(e). Thus, subsection (e) relates to land use classifications of noise receivers under Part 901—Class A, B, or C, *see* 35 Ill. Adm. Code 901.101—which determine the applicable default numeric decibel limits for new and existing forgers under Section 901.105(b) and (c), respectively. For example, the default numeric limits for existing forgers’ sound emissions, in A-weighted Leq, are 58.5 (daytime) and 53.5 (nighttime) for Class A receivers; 64.5 at all times for Class B receivers; and no limit for Class C receivers. 35 Ill. Adm. Code 901.105(c). Forging operators like Clifford-Jacobs that have obtained site-specific operational rules are not subject to *any* of the default numeric limits under Section 901.105(c); instead, their operations are governed exclusively by the allowable operational levels and hours set forth in the applicable site-specific rule. *See id.* at 901.105(c), (f). Therefore, under a site-specific operational level, there is no “less restrictive limitation” that a change in land use classification might trigger. Accordingly, the Board finds that Section 901.105(e) has no application here.

Economic Need

The residents contend that Clifford-Jacobs has not shown an “economic need” for the proposed amendments, and that recent layoffs at the facility demonstrate that any need is “not in any sense immediate.” PC 5 at 3. The residents point to Section 901.105(d), which requires a forging operation seeking a site-specific operational level to address certain factors in its petition, including a description of the “economic and technical considerations which justify” the requested operational level. 35 Ill. Adm. Code 901.105(d)(2)(I). But the provisions of Section 901.105(d)(2) impose on *petitioners* specific procedural requirements, including a description of economic and technical justification for the relief sought. None of these constitutes a limitation on the Board’s authority. In any event, the Board does not read Section 901.105(d)(2)(I) as limiting the availability of a site-specific rule to petitioners whose economic need for the relief sought are immediate. Certainly, the Board does not agree that a petitioner like Clifford-Jacobs

that does not currently have but seeks to position itself for additional business is ineligible for a site-specific rule or an amendment to an existing one. As Clifford-Jacobs reasonably explains, as a “made-to-order” shop, it needs flexibility to “meet the changing demands of an evolving marketplace—flexibility that the proposed amendments would afford. PC 6 at 9, 11-12; *see also*, *e.g.*, Tr. at 27-28, 32-33; Exh. 1 at 1.

Further, while a business-related justification may be relevant to a petition for an amended site-specific operational level, Section 901.105(d)(2)(I)’s requirement to provide “economic and technical” justification speaks, not to such issues, but to whether noise reduction is economically reasonable and technically feasible. The Board has explained that the rule requires a petition to address the facility’s “economic and technical inability to comply with established limits”; the “intended means of reducing noise as much as possible”; and the “current and projected health and welfare impacts on the surrounding community.” Proposed Amendment of Rules 101, 205, 206, and 209 of the Noise Regulations, R76-14, slip op. at 9 (Mar. 19, 1982); *see also, e.g., Clifford-Jacobs*, R83-25, slip op. at 1 (Dec. 6, 1984). And the Board has already found, above and at first notice (*see* Board Op. at 22), that noise reduction at the facility is at present not economically reasonable or technically feasible.

TECHNICAL FEASIBILITY AND ECONOMIC REASONABLENESS **CONCLUSION**

Economic Impact Study

As required by Section 27(b) of the Act (415 ILCS 5/27(b)), the Board in a letter dated July 11, 2014, requested that DCEO conduct an economic impact study of Clifford-Jacobs’ rulemaking proposal as required by Section 27(b) of the Environmental Protection Act (Act) (415 ILCS 5/27(b) (2012)). The Board asked that DCEO determine by August 29, 2014 whether it would conduct such a study. The Board has received no response to this request from DCEO. During the hearing, the hearing officer afforded those present an opportunity to address the Board’s request for a study and DCEO’s lack of a response. Tr. at 122. No participant offered testimony or comment on the request or response. *Id.*

Technical Feasibility

Clifford-Jacobs initiated this rulemaking to give it operational flexibility to employ a third shift to meet market demand and adjust its hours of operation to protect workers. *See, e.g.*, Prop. at 6; Tr. at 24. Clifford-Jacobs plainly has the equipment, including the forging hammers of various sizes, to conduct operations during the hours when it requests permission to operate. *See, e.g.*, Prop. at 3-4; Exh. 3 at 1; Tr. at 56. And, self-evidently, Clifford-Jacobs would not have filed its rulemaking proposal if the proposed amendments were not technically feasible.

The Board proposed at first notice and proposes at second notice two conditions to Clifford-Jacobs’ proposed amendments—namely, limiting overnight impulsive sound emissions to 65 dB (A-weighted Leq) at the control point, as well as an investigation-and-reporting requirement regarding sound control technology suited to its forging operations. The record makes clear that each of these conditions is technically feasible. Mr. Ray testified that if a noise

standard were imposed on the third shift, a 65 dB (A-weighted Leq) nighttime standard would be acceptable to Clifford-Jacobs. Tr. at 116. And Clifford-Jacobs characterizes the investigation-and-reporting conditions as “not unreasonable,” adding that if these conditions are ultimately adopted, Clifford-Jacobs could complete the required activities “in a thorough and studied manner.” PC 6 at 19-20.

On this record, the Board finds that the amendments proposed in the order below are technically feasible.

Economic Reasonableness

As with technical feasibility, the Board has no difficulty finding that Clifford-Jacobs’ original proposal is economically reasonable. Clifford-Jacobs initiated this rulemaking, at least in part, to enable it to take on additional business “‘when the market shows itself.’” Prop. at 13, citing Tr. at 24; *see also, e.g.*, PC 2 at 7. From Clifford-Jacobs’ perspective, then, its proposal is not only economically reasonable, but essential to the facility’s survival. PC 6 at 9, 11.

As for the proposed conditions, it is clear that they will not impose undue costs on Clifford-Jacobs. True, Clifford-Jacobs has argued that even a 65 dB (A-weighted Leq) limit on nighttime sound emissions would introduce “limitations and restraints” on its flexibility to meet market demand. PC 2 at 7 & Attach. F. Nevertheless, Mr. Ray testified that a 65 dB cap on overnight operations would be acceptable to Clifford-Jacobs, and Clifford-Jacobs did not take issue with the proposed cap at first notice. As for the investigation-and-reporting conditions, Clifford-Jacobs considers them “not unreasonable,” and does not otherwise object to them. PC 6 at 19-20.

Based upon this record, the Board finds that the proposed amendments are economically reasonable.

CONCLUSION

For second-notice review by JCAR, the Board proposes the following amendments to the site-specific rule at 35 Ill. Adm. Code 901.119. The amended rule allows Clifford-Jacobs to operate up to fourteen hammers at any one time, up to 24 hours a day, Monday through Saturday. But sound emissions from any operations between 11 p.m. and 6 a.m. may not exceed 65 dB (A-weighted Leq). In addition, the proposed rule requires Clifford-Jacobs to investigate new sound mitigation technologies and measures and to file with the Board every ten years a report on the findings of this investigation. The Board also includes in the amendments non-substantive changes suggested by JCAR.

ORDER

The Board directs the Clerk to submit to JCAR the following proposed amendments to Clifford-Jacobs’ site-specific rule. Proposed additions are underlined, and proposed deletions appear stricken.

TITLE 35: ENVIRONMENTAL PROTECTION
 SUBTITLE H: NOISE
 CHAPTER I: POLLUTION CONTROL BOARD

PART 901
 SOUND EMISSION STANDARDS AND LIMITATIONS FOR PROPERTY LINE-NOISE-
 SOURCES

Section

901.101	Classification of Land According to Use
901.102	Sound Emitted to Class A Land
901.103	Sound Emitted to Class B Land
901.104	Highly - Impulsive Sound
901.105	Impact Forging Operations
901.106	Prominent Discrete Tones
901.107	Exceptions
901.108	Compliance Dates for Part 901
901.109	Highly - Impulsive Sound from Explosive Blasting
901.110	Amforge Operational Level
901.111	Modern Drop Forge Operational Level
901.112	Wyman-Gordon Operational Level
901.113	Wagner Casting Site-Specific Operational Level (Repealed)
901.114	Moline Forge Operational Level
901.115	Cornell Forge Hampshire Division Site-Specific Operational Level
901.116	Forgings and Stampings, Inc. Operational Level
901.117	Rockford Drop Forge Company Operational Level
901.118	Scot Forge Company – Franklin Park Division Operational Level
901.119	Clifford-Jacobs Operational Level
901.120	C.S. Norcross Operational Level
901.121	Vaughan & Bushnell Operational Level
901.122	Ameren Elgin Facility Site-Specific Noise Emission Limitations

901.APPENDIX A Old Rule Numbers Referenced

901.APPENDIX B Land-Based Classification Standards and Corresponding 35 Ill. Adm. Code
 901 Land Classes

AUTHORITY: Implementing Section 25 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/25 and 27].

SOURCE: Originally filed as Part 2 of Chapter 8: Noise Pollution, effective August 10, 1973; amended at 2 Ill. Reg. 27, p. 223, effective June 26, 1978; amended at 5 Ill. Reg. 6371, effective June 1, 1981; amended at 5 Ill. Reg. 8533, effective August 10, 1981; amended at 6 Ill. Reg. 10960, effective September 1, 1982; codified at 7 Ill. Reg. 13646; amended at 7 Ill. Reg. 14519, effective October 17, 1983; amended in R83-35 at 8 Ill. Reg. 18893, effective September 25, 1984; amended in R83-33, 26, 29, 30 and R83-34 at 9 Ill. Reg. 1405, effective January 17, 1985; Section 901.105(f)(1), (2) and (3) recodified to Sections 901.110, 901.111 and

901.112 at 9 Ill. Reg. 7147; amended in R83-25, 31 and 32 at 9 Ill. Reg. 7149, effective May 7, 1985; amended in R83-7 at 11 Ill. Reg. 3136, effective January 28, 1987; amended in R04-11, at 28 Ill. Reg. 11910, effective July 30, 2004; amended in R03-9 at 30 Ill. Reg. 5533, effective March 10, 2006; amended in R06-11 at 31 Ill. Reg. 1984, effective January 12, 2007; and amended in R14-22 at 39 Ill. Reg. _____, effective _____..

Section 901.119 Clifford-Jacobs Operational Level

Clifford-Jacobs Forging Company and future owners of the forging facility located at 2410 North Fifth Street~~North Market Street~~, Champaign, Illinois, must~~shall~~ comply with the following site-specific operational level and sound limitations:

- a) Operate no more than fourteen hammers at any one time; ~~and~~
- b) Operate its forging hammers up to 24 hours per day, only between the hours of 6:00 a.m. and 11:00 p.m. Monday through Saturday;
- c) Must not cause or allow the emission of sound from the facility to exceed 65 dB (A-weighted Leq) at the far southwest corner of the facility's property line adjacent to Wallace Avenue between the hours of 11 p.m. to 6:00 a.m., Monday through Saturday;
- d) Must investigate new technologies, sound abatement measures, and possible operational changes to mitigate the sound emissions from its forging operations; and
- e) Must submit to the Board a report on the findings of the investigation pursuant to subsection (d) of this Section, once every ~~ten~~10 years after the effective date of this amended Section. The report must be filed with the Clerk of the Board at the following address:

Office of the Clerk
Pollution Control Board
James R. Thompson Center
100 West Randolph Street, Suite 11-500
Chicago, Illinois 60601

(Source: Amended at 39 Ill. Reg. _____, effective _____).

IT IS SO ORDERED.

I, John T. Therriault, Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above opinion and order on October 15, 2015, by a vote of 5-0.

A handwritten signature in black ink that reads "John T. Therriault". The signature is written in a cursive style with a long horizontal flourish extending to the right.

John T. Therriault, Clerk
Illinois Pollution Control Board