STATE OF NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION

IN THE MATTER OF THE APPLICATION OF ONTARIO COUNTY, Pursuant to Title 7 of Article 27 of the Environmental Conservation Law, to modify the solid waste and air permits at the Ontario County MSW Landfill in the Town of Seneca, New York

Application Nos. 8-3244-00004/00007, 8-3244-00004/00021, and 8-3244-00004/00001

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AMENDED SUPPLEMENTAL PETITION ON NOISE ISSUES

on behalf of Finger Lakes Zero Waste Coalition, Inc.

corrected per 3/11/15 errata list

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INTRODUCTION

Pursuant to the scheduling memorandum of the Administative Law Judge assigned to this matter, dated February 13, 2015, this Petition is submitted on behalf of Finger Lakes Zero Waste Coalition, Inc. ("FLZWC") to supplement FLZWC's initial petition for full party status in this matter regarding compliance with Part 360-1.14(p), the Department's landfill noise regulation, and incorporates all relevant allegations and assertions of law provided in the initial petition.

The Department's regulation of landfill noise is well-developed and has led to an identifiable approach to noise issues based on the regulation, (Part 360-1.14(p)), case decisions and issues rulings. This approach is informed by an important guidance document issued by the Department.¹ However, the Department's guidance is superceded in specific respects, as discussed below, by the terms of the regulation, as interpreted by the Department's decisions and rulings. Where it is not, the decisions and rulings have applied the guidance to support the settled approach to the analysis of landfill noise issues.

Rulings of the administrative law judge ("ALJ") in two recent cases, affirmed by the Commissioner, provide the most detailed review of the rules that apply to a Part 360-1.14(p) compliance determination for purposes of permitting a landfill expansion, and in both compliance with the regulation was certified for adjudication.² Accordingly, these rulings will be

¹ NYSDEC, Assessing and Mitigating Noise Impacts, Program Policy DEP-00-1(Oct. 6, 2000), available at http://www.dec.state.ny.us/website/dcs/policy/noise2000.pdf>.

² ALJ Rulings on Issues and Party Status, *In the Matter of the Application of the Sullivan County Division of Solid Waste for permits for the Phase II expansion of the County Landfill in the Village of Monticello, Sullivan County*, No. 3-4846-00079/00027, 2007 N.Y. ENV LEXIS 2

relied on heavily here.

As will be shown below, based on the legal and technical deficiencies of the Applicant's noise assessment,³ the assessment fails to comport with the required approach to evaluating noise impacts under Part 360-1.14(p), and departs without justification from the methods for noise assessment established in the profession of acoustic engineering. Accordingly, the Applicant must provide new information in a supplemental noise assessment that comports with the Department's regulation and precedents, and with established professional methods. Once this information is provided, the issues conference should resume, after petitioner has had an opportunity to comment on the adequacy of the information and perform its own site investigation, as warranted.

In the following the legal issues petitioner seeks to raise are discussed first, in general terms, by reference to the Department's decisions and rulings. Next follows a discussion of factual issues which will be raised, by reference to Department decisions and rulings that have addressed the manner in which such issues should be approached. Finally, deficiencies in the Applicant's noise assessment are identified in light of the way the legal and factual issues the assessment raises have been resolved in previous cases, and with reference to petitioner's expert

⁽January 18, 2007), aff'd by Decision of the Commissioner, 2008 N.Y. ENV LEXIS 20, *26 (hereafter, "Sullivan County Landfill"); ALJ Rulings, In the Matter of the Application of Chemung County for modification of the Part 360 permit for its municipal solid waste landfill, No. 8-0728-00004/00013, 2010 N.Y. ENV LEXIS 60 (September 3, 2010), aff'd by Decision of the Commissioner, 2011 N.Y. ENV LEXIS 43 (August 4, 2011) (hereafter, "Chemung County Landfill"). In both cases, the Undersigned represented the petitioners; in the Chemung County Landfill case, Mr. West represented Casella; Chemung County was represented by independent counsel.

³ Ontario County, Part 360 Applic., Appx. J, "Operating Noise Impact Assessment" (rev. May 2013).

report, appended here as an offer of proof.⁴

LEGAL ISSUES RELATING TO LANDFILL NOISE

Initially, questions of facts and law should be distinguished. "The factual questions arise from competing noise analyses performed on behalf of the County and Concerned Citizens, and must be adjudicated through testimony of those parties' noise experts."⁵

By contrast, "questions of law [involve] the proper interpretation of Section 360-1.14(p)," and under 6 NYCRR 624.4(b)(5)(iii) can be resolved in an issues conference ruling.⁶ If the questions are purely legal, in that they do not involve any disputed facts, the questions should be addressed in the issues conference, pursuant to 6 NYCRR 624.4(b)(2)(iv).⁷

Next, the posture of the instant case should be understood, against the posture of previous cases where noise issues were certified for adjudication. In the Sullivan County Landfill matter, Department staff came to the issues conference without a draft Part 360 permit and, as the issues conferenced developed staff resolved many of its areas of concern except four, which it "said had to be addressed adequately before it could recommend permit issuance," including "noise

 7 Id.

⁴ See Noise Control Engineering, LLC (Michael Bahtierian, INCE Bd. Cert.), *Peer Review Ontario County Landfill, Noise Assessment* (Mary 9, 2015), hereafter, "Bahtierian Report". For its offer of proof petitioner also relies on the information provided in the County's applications or, in some instances, missing from the applications but necessary to resolve the proposed issues.

⁵ Sullivan County Landfill, *36.

⁶ *Id*.

control, recycling, various landfill siting requirements, and odor and gas control."⁸ During the issues conference, which was adjourned for this purpose, the noise issue "was the subject of additional testing by consultants for the County and Concerned Citizens."⁹ The noise issue could not be resolved at the issues conference and was certified for adjudication.¹⁰

In the Chemung County Landfill case, "[Region 8] staff's concerns about noise impacts" led to a 27-month delay in issuing a completeness determination,¹¹ after which the noise issue was raised by intervenors and certified for adjudication.¹² The parties settled the issue, agreeing to a protocol under which periodic noise monitoring would be performed when landfilling reached areas and heights at which the applicant could not demonstrate compliance with the regulation, and petitioner's noise expert would be involved in calibration of noise measurement devices and review of the methods and results of the operators's measurements.¹³

Where an applicant's noise assessment fails to provide "a reasonable assurance that the County can meet the requirements of 6 NYCRR 360-1.14(p)," compliance with those provisions can be adjudicated as a hearing issue.¹⁴ "Section 360-1.14(p) states that noise levels resulting

¹¹ Chemung County Landfill, *4.

¹² *Id.*, *17-18.

¹³ See id., *38-39; Decision of the Commissioner, *same matter*, 2011 N.Y. ENV LEXIS 43, at *1-2. The ruling does not disclose the details of the settlement provided above. However, the settlement is not confidential, and Mr. West and the Undersigned represented the parties to the settlement.

¹⁴ Sullivan County Landfill, at *43.

⁸ Sullivan County Landfill, *15-16.

⁹ *Id.*, at *17.

¹⁰ *Id.*, at *35ff.

from equipment or operations at the facility must be controlled to prevent transmission of sound levels beyond the facility property line at locations zoned or otherwise authorized for residential purposes to exceed certain Leq energy equivalent sound levels, which vary based on the character of the community."¹⁵ To qualify for a permit modification, an applicant for a landfill expansion must demonstrate it can comply with all applicable requirements under Part 360, including the noise regulation. "According to 6 NYCRR 360-1.9(c), an application to modify a permit for a solid waste management facility must include a demonstration that, as modified, the facility will be capable of compliance with applicable Part 360 requirements, which include the operational requirements at 360-1.14."¹⁶

For a new landfill expansion unit, the noise regulation does not apply to initial construction activities. "Section 360-1.14(p) applies to operational noise and not to construction noise."¹⁷ Accordingly, an applicant's noise assessment may be limited in scope to noise created by "delivery of waste to the working face and its disposal and compaction there, using assumptions that are meant to address a realistic 'worst-case scenario' in terms of off-site impacts."¹⁸

Matter of Saratoga County Landfill settled the question whether construction and operational noise are both regulated by Part 360-1.14(p), holding that only operational noise is so

¹⁵ *Id.*, *35.

- ¹⁶ Chemung County Landfill, *45.
- ¹⁷ Sullivan County Landfill, *36-37.
- ¹⁸ *Id*.

regulated.¹⁹ Construction noise includes the construction of noise mitigating barriers along landfill access roads, and berms around working face areas to block operational noise. While these "would create their own noise impacts, . . . such impacts would be temporary in nature, while the features themselves would mitigate noise impacts over the longer term operation of the facility, creating an overall benefit for off-site receptors."²⁰

Part 360-1.14(p) also limits noise "from equipment or operations at the facility," not just the landfill. *See also* Part 360-1.14(p)(1) (if the background level is used as the compliance level–because it is higher than the listed compliance level for the type of community–then "the facility must not produce an Leq exceeding that background [level]"). Thus, equipment noise resulting from an onsite soil mine must be included in facility noise.²¹

Under Part 360-1.14(p) the point of compliance, for purposes of a noise assessment, is "the property line at locations zoned or otherwise authorized for residential purposes," as stated in the regulation. The local zoning map can establish whether property bordering the landfill site property line is "authorized for residential purposes."²²

Part 360-1.14(p) also specifies the sound level limit allowable at the point of compliance according to the community character of the area surrounding the landfill. Rural areas have a

²¹ Decision of the Commissioner, *In the Matter of the Application of Hyland Facility Associates for Permits to Construct and to Operate a Solid Waste Management Facility*, No. 9-0232-3/1-0, 1993 N.Y. ENV LEXIS 29, *155 (June 21, 1993) (ALJ Hearing Report).

¹⁹ Second Interim Decision of the Commissioner, *In the Matter of the Application for a permit to construct and to operate a solid waste management facility by Saratoga County Landfill*, No. 5-4146-00018/00002-1, 1995 N.Y. ENV LEXIS 27, *17-19 (October 3, 1995).

²⁰ Sullivan County Landfill, *37.

²² Sullivan County Landfill, *38.

more stringent limit than suburban areas, and suburban areas have a more stringent limit than urban areas, but these terms are not defined in the regulation.²³

The local zoning map can provide "some indication of the Town's intent for how that area should be maintained, but the better evidence of a community's character is how it actually appears upon inspection."²⁴ The character of the community for purposes of determining the appropriate limit can be determined by the ALJ during a site visit, including a drive around the landfill site.²⁵ In addition, "an area need not be farmed to be considered rural, and a village may include or be itself a rural area, depending on its size and concentration of development."²⁶ As previously noted, the regulation allows the limit to be set at the "background residual noise level," *i.e.*, the level derived from measurement "excluding any contributions from the solid waste management facility," if the background level exceeds the limit appropriate for the type of community. Part 360-1.14(p)(1). However, "the background sound does not necessarily determine the area's character."²⁷

Importantly, "background residual sound level" is specified under Part 360-1.14(p) as the baseline against which to gauge impact sound levels, which are further specified as "Leq," which

²³ *Id*.

²⁴ *Id.*, at *40.

²⁵ *Id.*, at *38-39.

²⁶ *Id.*, at *40.

²⁷ Id.

is an average of measured sound level readings.²⁸ Thus, background sound under the regulation means the "ambient sound levels beyond the property line . . . that exist when the landfill is not operating."²⁹ Accordingly, background levels should not be measured at times when the landfill is operating.³⁰

Background sound levels in this sense accordingly serve two purposes under Part 360-1.14(p). As noted above, where background can be shown to be elevated above the applicable sound level limit, the Applicant can utilize the higher level as the sound level limit at the point of compliance. In addition, "for the purpose of gauging [operational] noise impacts," the "background residual sound level" can be compared to the operational sound level.³¹ However, this kind of impact analysis is ultimately superceded by Part 360-1.14(p) under which the relevant distance to the point of compliance is not that from the noise source to the receptors, but rather the distance from the noise sources to the site property line.³²

³⁰ *Id.*, at *41-42.

³¹ *Id.*, at *41.

²⁸ Assessing and Mitigating Noise Impacts, 7 (Leq is "related to the average of the sound energy over time"; "[t]he Leq integrates fluctuating sound levels over a period of time to express them as a steady state sound level"); *Sullivan County Landfill*, at *59 ("average sound levels during one-hour periods [are] contemplated by the Part 360 regulations").

²⁹ *Id.* (interpreting "background residual sound level" under Section 360-1.14(p)(1)).

 $^{^{32}}$ *Cf. id.*, at *51 (discussing "the noise mitigation achieved through the temporary use of 12-foot high portable noise barriers when the active working face is at the upper elevation of the eastern portions of cells 8 and 9 near the property line"), *54-55 (noting that the issue of impacts "shall not be adjudicated because the controlling regulation, 6 NYCRR 360-1.14(p), sets the limits for allowable noise from a solid waste management facility, and noise that falls below those limits may be viewed as not having a significant environmental impact under SEQRA"), and *55 ("the apparent intent of the regulation was to preserve noise levels at 57 dB(A) or below on the residential land, and that as long as that was accomplished, the relative increase in noise

Department guidance advises that noise assessments report "[c]alculations . . . performed for each point of reception in all directions being careful to evaluate the worst case noise impact potential by considering activities at the point where they would be closest to a receptor."³³ However, since Part 360-1.14(p) specifies the point of compliance as "the property line" of the landfill site, the focus on specific receptor locations expressed in the guidance is superceded. What remains is the specification of the general method for noise assessments, the directive to "evaluate the worst case noise impact potential." Given the additional specification under Part 360-1.14(p) that "a one-hour period" of operational noise be evaluated, whether in a rural area "the 57 decibel limit was exceeded for at least one hourly period at each of the locations," can be an issue for adjudication.³⁴

Accordingly, for purposes of Part 360-1.14(p), to assess a worst case condition, the operational sound level must be determined by estimating or calculating the sound level generated at the facility during a "peak" hour of operations. A peak hour of operations occurs when all available equipment is operating at the maximum expected duty or usage, as when, for example, waste hauling trucks are lined up for disposal at the landfill and transport their loads uphill along landfill access roads at the peak rate of traffic possible, and landfill working face

below that threshold was not the Department's concern") (citing and discussing *Matter of Saratoga County Landfill, supra*). *See also* Interim Decision of the Commissioner, *In the Matter of the Application to construct and operate a solid waste management facility by Blasdell Development Group, Inc.*, No. 9-1448-168/1-0, 1995 N.Y. ENV LEXIS 26, *7-8 (October 16, 1995) (Part 360-1.14(p) "is intended to protect residential lands from undue noise. The rule should be understood and read in light of that purpose.").

³³ Assessing and Mitigating Noise Impacts, 20.

³⁴ Sullivan County Landfill, *41.

heavy equipment such as compactors and bulldozers must operate at full throttle and duty cycle in order to process all the waste.³⁵

FACTUAL ISSUES RELATING TO LANDFILL NOISE

The principle questions that should be brought regarding the factual conclusions of an Applicant's noise assessment involve "assumptions used in [the Applicant's] noise model."³⁶ This is principally because modeling the propagation of sound is superior to actual measurements of purported worst-case conditions. The selection of specific locations for measurements of offsite operational sound levels provides no more than a "snap shot" of conditions at that moment, conditioning the transmission of sound from operational landfill equipment to the point where measurements were taken. To determine a noise issue under Part 360-1.14(p) requires "not only a consideration of topography as a noise attenuating factor, but the impact of attenuation due to distance, vegetation, and other factors, as noted in DEC's program policy for assessing and mitigating noise impacts (DEP-00-3, as revised February 2, 2001)."³⁷

Specific questions involve "whether [the Applicant's] noise model relies on reasonable assumptions and inputs, whether noise generators have been modeled in an appropriate manner, and whether worst-case scenarios for off-site impacts have been considered."³⁸

³⁸ *Id.*, at 58.

 $^{^{35}}$ Cf. id., *60-61 (distinguishing engine noise as compared to road noise of haul trucks climbing upslope on a landfill).

³⁶ *Id.*, at *43 (noting that Department questioned such assumptions).

³⁷ Chemung County Landfill, *47.

Regarding model inputs, measured sound levels for the specific equipment to be utilized at the landfill may not be credible where "sound levels for on-site equipment are less than levels used in the Department's guidance document for assessing noise impacts" under Part 360-1.14(p), since the latter better represent a conservative "realistic worst-case scenario."³⁹

Modeling parameters must also be "reasonably conservative."⁴⁰ An example of an approach meeting this standard, approved in the Chemung County Landfill case, would use as inputs to straight line sound propagation modeling measurements at a distance of 50 feet from operating equipment, identified as available at the landfill for peak expected operations, operating continuously during a worst-case hour. That is, the inputs to the model would be determined "by measuring sound from one compactor and two bulldozers, whereas the second bulldozer would be used only periodically; by operating the compactor and two bulldozers continuously in the working face area throughout the one-hour measurement period; by measuring the sound of 14 unloading trucks, more than are reportedly received at current peak operations; by entering the trucks within 50 feet of the closest measurement meter, and the compactor and dozers within 10 feet of the closest meters; by operating the compactor generally with the rear of the machine oriented in the general direction of one or the other of the two meter lines; and by setting off more than the usual number of 'bird bangers' per hour."⁴¹

Whether the equipment operating noise is realistically evaluated may also depend on

³⁹ *Id.*, at *62.

⁴⁰ *Id.*, at *50.

⁴¹ Chemung County LandfillI, at *50-51.

whether modeling takes into account the noise expected "when operating at the requested waste acceptance rate."⁴²

Finally, "[t]o assess impacts, all noise sources from the facility must be accounted for, because, for offsite receptors, they have a cumulative environmental impact."⁴³ The cumulative effect of noise sources from the facility should be assessed considering any factors that reduce or attenuate sound transmission: "Adjudication of the noise issue must include not only a consideration of topography as a noise attenuating factor, but the impact of attenuation due to distance, vegetation, and other factors, as noted in DEC's program policy for assessing and mitigating noise impacts."⁴⁴

ISSUES PROPOSED FOR ADJUDICATION

1. A nighttime noise assessment is required in the instant case but has not been performed.

Operations at the Ontario County Landfill are permitted to commence at 6:00 AM, Monday through Saturday.⁴⁵ Under Part 360-1.14(p), 6:00 AM is deemed to be within the

⁴² Sullivan County Landfill, *62. See also *id.*, at *50-51 (noting with approval intervenor's modeling for "in several locations east of the landfill expansion under a range of equipment configurations (including one dozer, one loader, vehicles at the working face, and between one and three compactors), when the area source is in the eastern portion of cells 7, 8 and 9 of the Phase II expansion").

 $^{^{43}}$ *Id.*, at *51. Evaluation of the cumulative impacts of noise on land is authorized under ECL § 3-0310(1)(b).

⁴⁴ Chemung County Landfill, *47.

⁴⁵ Proposed Part 360 Permit, Special Condition 39. The same condition is found in the current operating permit.

nighttime period during which, for a rural area, operational sound levels are limited to 47 dBA at the point of compliance. Accordingly, the Applicant must model the maximum realistically expected sound level that would occur in the hour between 6:00 AM and 7:00 AM, and gauge that level against the expected background residual level for the same period.

In a landfill soil mine permitting case, the Department's noise guidance was applied, but Part 360-1.14(p) was not. Accordingly, noise was "modeled, the inputs including the noise contributions from traffic in the 7 a.m. hour that is representative of the daytime period, in the 7 p.m. hour that is representative of the evening period, and in the 6 a.m. hour that is representative of the nighttime period."⁴⁶ However, here by regulation the more stringent nighttime sound level limit applies.⁴⁷ Accordingly, the proposed Part 360 permit must be conditioned, on this ground, by either changing the hours of operation, or by limiting equipment usage and truck traffic for the first hour of permitted operations.

However, an additional ground exists in the instant case for applying the nighttime sound level limit: the facility here includes a landfill gas-to-energy plant that operates 24 hours per day, but it has not been included in the noise sources considered in the Applicant's assessment.⁴⁸ In

⁴⁶ ALJ Rulings on Issues and Party Status, *In the Matter of the Application of Seneca Meadows, Inc., for a Mined Land Reclamation Permit to develop and operate the Meadow View mine in the Town of Waterloo, [Seneca] County*, No. 8-4538-00094-00001, 2012 N.Y. ENV LEXIS 15, *111-112 (March 26, 2012), aff'd by Decision of the Commissioner, 2012 N.Y. ENV LEXIS 76 (October 26, 2012).

⁴⁷ Note also that in the Seneca Meadows case, permitted operating hours commenced at 7:00 AM. *Id.*

⁴⁸ The landfill facility also includes a recycling facility that should have been included among the assessed operational noise sources, although the contribution of this facility to combined operational noise is not expected to be substantial.

addition, the landfill's flares should have been included in the Applicant's noise assessment. These, too, are expected to operate at night.

The term "facility" under Part 360 means facilities that are not hazardous waste facilities or low-level radioactive waste facilities. 6 NYCRR § 360-1.1(a).⁴⁹ Here, the solid waste management facility to be permitted includes facilities in addition to the land disposal facility (the landfill). Thus, "facility" under Part 360-1.14(p) means the solid waste management facility as a whole. Accordingly, the nighttime operations of the gas-to-energy must be assessed.

2. The Applicant's noise assessment utilizes a faulty measure of background sound levels.

As discussed previously, background sound levels should represent the quietest "one-hour period" during operations, excluding operational sounds. Part 360-1.14(p). The hour selected should represent a worst-case condition.⁵⁰ Therefore, "a valid extrapolation to a one-hour time interval," (Part 360-1.14(p)), should reflect the quietest time of the day (or night, as applicable).

The Applicant's noise assessment fails to meet this standard for more than one reason. First, the Applicant's assessment relies on Leq measures to report background sound levels. As noted above, Leq reports the average sound level during the measured period, integrating highs and lows in the measurements, and therefore fails to reflect the worst-case condition during any given hour. Part 360-1.14(p) specifically addresses this question by noting that "[i]t is not

⁴⁹ In addition, groundwater contamination means an exceedence of water quality standards or groundwater protection standards "attributable to the solid waste management facility." 6 NYCRR § 1.2(a)(43). It should not matter whether the source of the contamination is a failure of containment at the land disposal facility, the recycling facility, or the gas-to-energy facility to trigger the regulation.

⁵⁰ Assessing and Mitigating Noise Impacts, 20.

necessary that the measurements be taken over a full one-hour time interval, but sufficient measurements must be available to allow a valid extrapolation to a one-hour time interval."

Use of Leq to report baseline or background sound level was approved under SEQRA in *St. Lawrence Cement*.⁵¹ However, unlike SEQRA, Part 360 specifies Leq as the metric to be utilized for evaluation of project operational sound levels, and specifies "the background *residual* sound level," (Part 360-1.14(p)), for evaluating the baseline against which project noise is to be assessed.⁵² Accordingly, the Applicant's noise assessment is defective on this ground.

Second, the County's noise assessment relies for its determination of the background sound level on a two-hour period measured between the hours of 5:00 PM and 7:00 PM, at a location alongside a roadway, near the landfill site during landfilling operations.⁵³ As FLZWC's noise expert Michael Bahtierian notes, this fails to reflect a sufficiently conservative approach. Specifically, Mr. Bahtierian finds, upon review of the County's sound level data, that the area measured was "acoustically active" at the time and therefore does not represent "the quietest period of a full working day."⁵⁴ Accordingly, the Applicant's noise assessment is defective on this ground.

⁵¹ Decision of the Commissioner, *In the Matter of the Application for a State Facility Permit for Air Pollution Control (etc.) by St. Lawrence Cement Company, LLC*, No. 4-1040-00011/00001, 2002 N.Y. ENV LEXIS 61, *48.n.21 (December 6, 2002).

⁵² Note that in *Sullivan County Landfill*, (*cf.* *55-56), and *Chemung County Landfill*, (*cf.* *3), the Department was an involved agency under SEQRA, the respective county applicants having completed their reviews prior to the issues conference as lead agencies under SEQRA.

⁵³ Part 360 Applic., Appx. J, 8.

⁵⁴ Bahterian Report, 2 (point 2).

The Applicant's use of background sound level measurements taken along a busy roadway is very serious under the circumstances, which include criticisms of this very approach by FLZWC on July 29, 2010, in connection with a then-proposed soil borrow/mining project. As FLZWC pointed out at that time,⁵⁵ the onsite gas-to-energy plant had also measured background sound levels at similar locations, in accordance with Part 360-1.14(p) (although the plant is not subject to the regulation), "without the influence of any background noises such as heavy truck traffic or airplanes,"56 i.e., in accordance with Mr. Bahtierian's judgment as how such measurements should be taken, and in accordance with the "background residual sound level" specification in Part 360-1.14(p). The gas-to-energy plant's measurements show the levels to be well below 57 dBA, except for a location 50 feet from the north side of the plant. On August 25, 2010, Casella responded to FLZWC's comment, indicating that it could not obtain the manufacturers' sound level specifications for the equipment whose noise it assessed; that it used a representative operational sound level the firm had measured; and that it compared that sound level to the purported background sound level outside the landfill property, measured at 71.6 dBA Leq (one hour).⁵⁷ Because the purported background sound level was higher than the 57 dBA compliance level under Part 360-1.14(p), Casella concluded that offsite noise caused by

⁵⁵ D. Knipple, Letter to Kimberly Merchant, NYSDEC Region 8, dated July 29, 2010 (p.5).

⁵⁶ Peter H. Zeliff, Innovative Energy Systems, LLC, ("IES"), Letter to Edward D. Kieda, P.E., NYSDEC Region 8, March 11, 2011. The gas-to-energy plant subsequently acquired by Seneca Energy II. The results of background noise testing in 2009 was provided by IES with its 2009 annual report to the Department.

⁵⁷ Carla Jordan, Casella, Letter to Kimberly Merchant, August 25, 2010, pp. 4-6.

operations at the soil borrow area would not violate Part 360. On October 13, 2010, Region 8 issued its response to comments on the soil borrow project, concurring with Casella's analysis.⁵⁸ During this same time, the Chemung County Landfill matter was advancing, with an issues conference held on April 28, 2010.⁵⁹ As that proceeding developed these same issues were raised and the approach to background residual sound level testing utilized by Casella for the Ontario County Landfill, both at that time and currently, was rejected by the ALJ. Nevertheless, the same unacceptable element for a noise assessment under Part 360-1.14(p) is being urged by the County and Casella.⁶⁰

It should also be noted that, to the extent the County asserts that background sound levels at specific locations beyond the facility site property line exceed the applicable sound level limit (here, 57 dBA during daytime hours), it has failed to provide convincing evidence to support the assertion, based on the two deficiencies identified above. A third deficiency related to this question is identified by Mr. Bahtierian, the failure to utilize noise screens on the recording

⁵⁸ Kimberly Merchant, Response to Comments Letter, October 13, 2010, pp. 5-6.

⁵⁹ Chemung County Landfill, *10.

⁶⁰ It should be emphasized that FLZWC does not seek to relitigate the soil borrow are noise issue. However, the episode is clearly relevant to this proceeding inasmuch as the offsite background sound level results obtained by Barton & Loguidice in 2009, to justify deviating from the listed sound level limit under Part 360-1.14(p), were shown to be highly improbable, by comparison with background sound measurements at very similar locations conducted by Seneca Energy II for its onsite gas-to-energy plant; and inasmuch as Region 8 staff, while accepting B&L's justification in 2009, later went on to participate in the Chemung County Landfill case, in 2010, where B&L's approach was rejected; and inasmuch as, notwithstanding the teaching of the ALJ's rulings in the Chemung County landfill case, Region 8 staff, Casella, and B&L–who participated fully in the case–are nevertheless now asserting the same approach found unacceptable by the ALJ and the Commissioner in that case, and so advising the County.

microphones utilized for the County's measurements. Failure to use wind screens elevates the background sound level artificially by capturing wind noise at the microphone not ordinarily part of the sound scape people hear.⁶¹

3. The Applicant's noise assessment fails to assess a worst-case hour of landfilling operations.

In addition to failing to assess background sound levels for a worst-case condition, the County's noise assessment fails to evaluate peak equipment usage expected at the landfill. Several grounds for so concluding are identified in Mr. Bahtierian's report for FLZWC.

First, an assertion in the County's assessment, that two working faces would be quieter than one, cannot be credited. It is the distance from operating equipment to the point of compliance that is the basis for the assessment. Obviously, a realistic condition to be expected during operations is that two working faces distant from the site property line could be active, but emit less sound than one working face operating much nearer the line.

In the Sullivan County Landfill case, the ALJ would not allow the landfill to be permitted when it was shown that, once elevated in later stages of filling landfill cells, the direct line of sight of equipment noise would pass over site perimeter noise walls to sensitive receptors beyond the property line, in exceedence of the applicable Part 360-1.14(p) limit.⁶²

In the Chemung County Landfill case, the ALJ would not allow the landfill to be permitted when it was shown that noise exceeding the applicable limit would be directed

⁶¹ Bahtierian Report, 2, 3 (points 1 and 5.a). As Mr. Bahtierian also notes, failure to use wind screens also diminishes artificially the amount the sound level changes as a result of operational sound. Accordingly, the operational noise impact aspect of the County's assessment is deficient on this ground.

⁶² Sullivan County Landfill, *61-64.

downward to sensitive receptors beyond the property line at one area of the landfill, although in all other directions compliance was not disputed.⁶³ The County's noise assessment makes no effort to determine, based on the topography of the landfill and the surrounding residential area, whether such exceedences would occur during the operational lifetime of the expansion landfill.

Second, as Mr. Bahtierian notes, the County's noise assessment fails to adequately support its assertion that barriers would sufficiently attenuate operational sound. No authority was provided for an asserted rule-of-thumb for applying a 5 decibel reduction for barriers that break the line of sight to receptors. "A more sophisticated barrier computation" is called for under accepted standards in acoustics, according to Mr. Bahtierian. In particular, barriers do not attenuate lower frequency sounds expected to result from heavy duty trucks as well as mid-frequency sounds, to which the rule-of-thumb applies.⁶⁴

Third, ground attenuation is also less effective for the low-frequency sounds emitted by heavy duty trucks. The standard relied on by the County as authority for ground attenuation does not apply, according to Mr. Bahtierian.⁶⁵ In addition, a more detailed consideration of topography should be required to fully understand the presence or absence of attenuating ground features.⁶⁶

Fourth, the same is true for atmospheric attenuation.⁶⁷ With distance sound is attenuated

- ⁶⁴ Bahtierian Report, 3-4 (point 5.b).
- ⁶⁵ *Id.*, 4 (point 5.c).
- ⁶⁶ Chemung County Landfill, *34-35.
- ⁶⁷ Bahtierian Report, 4 (point 5.d).

⁶³ Chemung County Landfill, *45-46, 51-53.

to some degree by the ambient air. However, the worst-case condition of high relative humidity and noise sources emitting predominantly low-frequency sounds results in an attenuation factor of 0.4 dB/km rather than the 2.3 dB/km utilized by the County, according to Mr. Bahtierian. Applying this one computational modification alone to the County's assessment results in all locations assessed exceeding the applicable sound level limit.

Fifth, according to Mr. Bahtierian, sound level computations should be reported in whole decibels, a conservative convention in acoustics.⁶⁸ Therefore, even if they were to be credited, the County's calculated sound levels above 56.5 dBA should be considered evidence of noncompliance with the 57 DBA daytime limit for landfills in rural areas.

Sixth, the computation method the County relies on has a ± 3 dB error, according to Mr. Bahtierian.⁶⁹ Therefore, even if they were to be credited, the County's calculated sound levels above 54 dBA fail to provide a reasonable assurance that compliance can be maintained.

Combining all these technical deficiencies, which depart from specific accepted standards in acoustics, shows that the noise assessment provided by the Applicant is not accurate, and the scope of the assessment omitted potentially significant operational noise sources.

4. The County should not be allowed to rely on proposed post-permit mitigations.

In a power plant case where noise was at issue, a siting board accepted the applicant's "commitment to accept as a condition of certification the obligation to obtain the necessary noise

⁶⁹ Id.

⁶⁸ *Id.*, (point 5.e).

control permit from New York City," thus obviating the need to decide the issue of project noise impacts.⁷⁰ Part 360-1.14(p) was not at issue. In contrast, under Part 360, addressing in particular 360-1.14(p), an applicant's commitment to perform compliance testing after a permit is issued in lieu of a demonstration of compliance before permit issuance has not been tolerated:

The need to adjudicate noise impacts is not eliminated by the permit condition requiring annual noise testing once operations commence, because, as is acknowledged in Staff's statement of position, the Department needs a reasonable assurance that the landfill expansion will comply with applicable operating standards, including those governing noise, before it is permitted. Post-construction testing can verify compliance with Section 360-1.14(p), but it does not assure compliance in the first instance. If the expansion does not comply with this section or any other operational standard, the County risks a shutdown of the landfill or, at the least, further restrictions on its operations, which, even if they were imposed only for a short period, would be disruptive to those who depend on the facility. For that reason, the County should not be allowed to proceed at its own peril, in the absence of a reliable understanding of the expansion's potential environmental impacts.⁷¹

This reasoning applied to reject annual noise compliance testing, was subsequently applied in the

Chemung County Landfill case to reject "real-time noise monitoring" in lieu of " an analysis

providing a reasonable assurance of compliance" prior to permitting.⁷² Accordingly, unless it can

⁷¹ Sullivan County Landfill, *56-57. See also id., at *46 (noise would be adjudicated despite "a draft Part 360 permit condition requiring the County to conduct an annual noise survey during leaf-off conditions to determine compliance with Section 360-1.14(p) after Phase II operations begin").

⁷² Chemung County Landfill, *48-50 (quotes at *49).

⁷⁰ Presiding Examiner's Issues Ruling and Procedural Ruling, *Application of Consolidated Edison Company of New York, Inc. for a Certificate of Environmental Compatibility and Public Need to Repower its East River Generating Station located in the Borough of Manhattan, New York City*, No. 99-F-1314 (etc.), 2001 N.Y. ENV LEXIS 20, *72-73 (March, 2001) ("concerns about the modeling and accumulated impacts are not material because the development of this issue will not be of decisional consequence").

be demonstrate that compliance can be reasonably assured under all realistic operational conditions, the County should not be allowed to rely on post-permit noise monitoring to ensure the Part 360-1.14(p) will not be exceeded.

5. Reliance on "noise easements" is misplaced in this case.

The issues proposed above assume the effectiveness of certain "noise easements" purported by the County to extend the point of compliance some distance away from the landfill site. As Mr. Bahtierian points out, if these easements are ineffective, all locations where operational noise was gauged against the background residual sound level would exceed the applicable sound level limit. However, there are several reasons to believe these "easements" are ineffective under Part 360-1.14(p) as a matter of law.

a. The County as Applicant has obtained no "noise easements".

In *Matter of Saratoga County Landfill*, the Commissioner opined that "acquiring appropriate noise easements" by the applicant would be an acceptable "means of satisfying the regulations and permit conditions."⁷³ In that case, noise easements were not relied upon to comply with Part 360-1.14(p). However, based on the easements a variance was granted because there were no residences offsite for a substantial distance, and because a permit condition required compliance with the offsite sound level limit "at any newly built residence and any associated area of frequent activity."⁷⁴

The Department has allowed the landfill property line to embrace neighboring property

⁷³ Decision of the Commissioner, No. 5-4146-00018/00002-1, 1996 N.Y. ENV LEXIS 21, *15 (September 3, 1996).

⁷⁴ *Id.*, at *14.

and thereby extend beyond the landfill's point of compliance under Part 360-1.14(p), but only where the landfill permittee purchased easements on the neighboring property. In the Hyland Landfill case, the Commissioner allowed "noise easements obtained by the Applicant" to move "the [site] boundary for noise purposes" under Part 360-1.14(p).⁷⁵ In the Chemung County Landfill case, the County as applicant obtained noise easements "to expand the buffer between the landfill footprint and sensitive offsite receptors."⁷⁶

Here, by contrast, a commercial operator contracted by the County (the Applicant) has obtained noise easements. Allowing the Applicant to avoid being bound by the easements and still obtain what is in effect a variance from Part 360-1.14(p) would set a precedent. If the contract failed, or was modified to allow a different operator, including the Applicant, the Applicant could be forced to cease operations in a portion of the site until it obtained easements, and its success in the future could not be assured.

b. "Noise easements" on which the County relies do not extend to post-closure operations.

The noise easements at issue here are not conditioned on the continued operation of the landfill for the entire time of operations, as Casella asserts.⁷⁷ Instead, by Casella's own account, the term of the easements extends "until such time as the solid waste management facility on the [Landfill] discontinues to accept waste for disposal . . ."⁷⁸ Once disposal ceases, operations must

⁷⁸ *Id.*, at 2.

⁷⁵ Matter of Hyland Facility, 1993 N.Y. ENV LEXIS 29, *18, *156.

⁷⁶ Chemung County Landfill, *21.

⁷⁷ See T. West, Letter to L. Schwartz, April 2, 2014.

continue for at least another 30 years to satisfy post-closure requirements. 6 NYCRR § 360-1.7(A)(3)(viii). Post-closure operations would involve operation of heavy equipment high above grade for purposes of installing final cover and maintaining it as well as accessory structures such as the landfill gas collection headers, wells and gas collectors. Heavy equipment would also be involved in hauling cover materials into the site and hauling leachate out.

c. Casella's noise easements at issue are not "appurtenant" to the County's landfill site.

Casella has provided to Department Regional Counsel a legal analysis purporting to establish that certain noise easements it has acquired should be deemed "appurtenant" to the County's landfill property, and should be deemed easement rights of the County.⁷⁹ In support of the proposition that "[a]ny easement appurtenant acquired by a lessee, such as Casella, is acquired on behalf of its lessor (who is immediately vested with rights therein)", Casella cites certain cases, none of which, however, so hold.

For example, one case cited by Casella is *Risi v. Interboro Industrial Parks, Inc.*, 470 N.Y.S.2d 174, 175 (2d Dep't 1984) (adverse possession by lessee against landlord under RPAPL § 531). According to the practice commentary in the Consolidated Laws Service edition of RPAPL § 531, "RPAPL § 531 only applies to the relationship between a tenant and landlord. It does not affect the relationship between a tenant and another record owner."

In another cited case, *Spiegel v. Ferraro*, 73 N.Y.2d 622, 628 (1989) a lessor obtained its lessee's easement by adverse possession because lessor's use of the area under the easement met all the elements for adverse possession, including exclusive and continuous use for 10 years.

⁷⁹ Id., passim.

Whether the easement was "appurtenant" to the landlord's property is not mentioned.

In *Will v. Gates*, 89 N.Y.2d 778 (1997), also cited, easement rights to a right-of-way were extinguished when dominant landowner purchased the servient estate containing the right-of-way; no lessor-lessee relationship involved. Whether the easement was "appurtenant" to the landlord's property is not mentioned.

Norse Realty Group, Inc. v. Mormando Family Ltd. Partnership, 38 A.D.3d 735, 736 (2d Dep't 2007), also cited, involves a contract for the sale of certain real property. There, the court held that an easement expressly conditioned on the continued operation of the subject property "as a bowling alley" was extinguished by its own terms upon permanent cessation the bowling business. Whether the easement was "appurtenant" to the landlord's property is not mentioned.

According to Black's Law Dictionary 6th (1990), the term "appurtenant" is "[e]mployed in leases for the purpose of including any easements or servitudes used or enjoyed with the demised premises." Since the County is not a party to Casella's agreements with the neighbors, its agreements are not appurtenant to the County's property, notwithstanding that the agreements are styled "easements." They are simply contractual agreements between Casella and the neighbors purporting to allow nuisance noise levels in return for a small annual payment. The neighbors' lands remain "locations zoned or otherwise authorized for residential purposes." 6 NYCRR 360-1.14(p). Accordingly, the noise limits under Part 360 remain applicable "beyond the property line" of the landfill site property. *Id*.

6. The County cannot be granted a variance from Part 360-1.14(p)(4) (80 dBA limit on equipment noise) unless and until it demonstrates it can comply with the applicable sound

level limit under Part 360-1.14(p).

According to the Applicant's noise assessment:

NYSDEC has granted the facility a variance from 6 NYCRR Part 360-1.14(p)(4) with regard to the maximum sound level of 80 dBA at a distance of 50 feet from operating equipment (Part 360 operating permit special condition 67). This variance would apply to operations in the landfill expansion.⁸⁰

However, a variance cannot be considered until Applicant demonstrates it can comply with the numerical sound level limit, with or without proposed mitigative measures.⁸¹

However, no variance from the 57 dBA sound level limit at the landfill site property line is proposed. Accordingly, the requested variance for equipment noise cannot be granted unless and until the Applicant demonstrates it can comply with the rural noise limit at the point of compliance.

CONCLUSION

Offsite landfill noise is not a trivial matter in this case because the Ontario County Landfill is surrounded by residential properties. The County has recognized that, as the landfill grows, it presents a growing nuisance to its neighbors, by creating a "Property Protection Plan," under which neighboring landowners are to be paid for the diminished value of their property

⁸⁰ Part 360 Applic., Appx. J, 6.

⁸¹ Chemung County Landfill, *63-64 (citing and discussing 6 NYCRR § 360-1.7(c)(2)(iii), requiring applicants for a variance to demonstrate that the permitted activity will in any case "have no significant adverse impact on the public health, safety or welfare, the environment or natural resources and will be consistent with the provisions of the ECL and the performance expected from application of [Part 360]").

attributable to the landfill upon any sale of the resident's property.

Under Sullivan County Landfill and Chemung County Landfill, the only two Department rulings examining the application of Part 360's landfill noise regulation in detail, the County's approach, measuring offsite sound impacts at selected points, has not been tolerated. Instead, modeling is preferred, either straight line propagation or Cadna/A-type sophisticated modeling. Under both rulings, where modeling is performed by the Applicant, measurements at 50 feet distance of landfill working face equipment operating continuously for a full hour under a heavy duty cycle, simulating waste management at the permitted waste acceptance rate, can be used as input to the model. Inputs must then be added for the maximum number of haul trucks (both soil and waste hauling) at the permitted waste acceptance rate, ⁸² applied to the varying terrain of the landfill disclosed in the landfill grading plan and the topography of the surrounding area.

Where, as here, there are also operational noise sources at the facility site apart from the landfill working face, such as the soil mining area, the landfill flares, and the gas-to-energy plant, which at Ontario County Landfill could be operating simultaneously with landfilling operations, these too must be incorporated into the model in order to assess the worst case conditions.

Since nothing like this kind of modeling has been offered by the Applicant,⁸³ a new

⁸² *Cf.* Decision of the Commissioner, *Chemung County Landfill*, 2011 N.Y. ENV LEXIS 43, *1 (affirming "that an issue existed whether noise from landfill cell IV-B operations under the higher maximum waste acceptance rate proposed by the County would exceed the allowable noise limit established by section 360-1.14(p)").

⁸³ Indeed, in *Chemung County Landfill*, Casella and the County relied on the same environmental engineering firm (Barton &] Loguidice, D.P.C.) as here, utilizing the same "snap shot" measurement approach previously rejected by the ALJ and the Commissioner.

model must be prepared and made available for comment and criticism by the petitioner and the Department, as warranted. Until the Applicant complies with the methodology for a noise assessment under Part 360-1.14(p) acceptable under the Department's precedents, there is no basis to adjudicate the issue, as the Applicant will be unable to demonstrate it can comply with the applicable requirement.

Dated: March 10, 2015

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