
Operating Noise Impact Assessment

Port of Albany Transfer Facility

NYSDEC Facility ID No. 4-0101-00185

Prepared For
Waste Management of New York, LLC

100 Boat Street
Albany, New York 12202

December 2020

Port of Albany Transfer Facility
Waste Management of New York, LLC.

Operating Noise Impact Assessment

December 2020

Prepared For
Waste Management of New York, LLC.
100 Boat Street
Albany, New York 12202

Prepared By
Barton & Loguidice, D.P.C.
443 Electronics Parkway
Liverpool, New York 13088

Table of Contents

<u>Section</u>	<u>Page</u>
1.0 Introduction.....	1
2.0 Site and Project Description	3
2.1 Site Description	3
2.2 Project Description	3
3.0 Noise Fundamentals	5
3.1 Sound Levels Decrease Over Distance.....	6
4.0 Noise Criteria	7
4.1 6 NYCRR Part 360 Regulations	7
4.2 SEQRA Assessment.....	8
5.0 Facility Sound Level Measurements	11
5.1 Existing Facility Sound Level Measurements	11
5.2 Current Peak and Proposed Peak Transfer Facility Operations	11
6.0 Measurement Results	13
6.1 Proposed Operation - SEQR Receptor Impact Assessment	15
6.2 Proposed Operation - 6 NYCRR Part 360 Compliance	16
7.0 Noise Abatement Best Management Practices.....	17
8.0 Summary and Conclusion.....	19

Tables

Table 1 – Common Noise Levels	6
Table 2 – M1 Port of Albany Transfer Facility 24-hour Noise Monitoring October 13-14, 2020.....	14
Table 3 – M2 Port of Albany Transfer Facility 24-hour Noise Monitoring October 13-14, 2020.....	14
Table 4 – Daytime Hourly Leq Sound Levels	15
Table 5 – Nighttime Hourly Leq Sound Levels.....	15

**Table of Contents
(Continued)**

Section

Figures

Figure 1 – Site Plan

Appendices

Appendix A – Sound Level Meter Calibration Certificates

Appendix B – NYSDEC Noise Monitoring Protocol Correspondence

1.0 Introduction

This Operating Noise Impact Assessment is submitted on behalf of Waste Management of New York, LLC (WMNY) to the New York State Department of Environmental Conservation (NYSDEC) in support of the proposed permit modification for the WMNY Port of Albany Transfer Station located in Albany, New York. The purpose of this noise impact assessment is to evaluate the potential operational noise impacts from a proposed NYSDEC Part 360 permit modification for the existing Port of Albany Transfer Station (herein referred to as “the facility”) in accordance with NYSDEC solid waste facility regulations and noise assessment guidance. This assessment evaluates the potential noise impacts from sound generated by existing sources operating at the facility in order to determine future worst-case facility operational source noise levels anticipated as a result of the proposed permit modification.

This noise impact assessment consisted of collecting sound level measurement data at two locations surrounding the facility during typical daily operations to establish the existing peak-hour operational sound levels for the facility and to predict the future peak-hour operational sounds levels following the proposed permit modification. This data was utilized to assess potential noise impacts at offsite sensitive receptors resulting from the permit modification under SEQRA, including using the noise impact assessment procedures provided in the NYSDEC Program Policy *DEP-00-1 Assessing and Mitigating Noise Impacts* (NYSDEC, 2001).

2.0 Site and Project Description

The Port of Albany Transfer Station is located on approximately 3.1 acres at 100 Boat Street in the central portion of the Port of Albany, City of Albany, Albany County, New York (see Figure 1). The facility is owned and operated by Waste Management of New York, LLC.

2.1 Site Description

The facility is located in an industrial/commercial area within the Port of Albany. The facility is bordered to the north by a wastewater treatment facility, oil terminal and commercial/industrial properties. The facility is bordered to the east by additional commercial/industrial properties, and beyond, the Hudson River with docking areas within the Port. To the south of the facility is an industrial/commercial building, and beyond which is a scrap yard. To the west the facility is bordered by soil/mulch processing facility which operates from spring to fall, and a main rail line with multiple rail tracks. Beyond the rail line at approximately 1,000 feet to the northwest is located the closest residential property to the transfer station facility. This property is part of a residential housing development located on South Pearl Street.

The facility consists of a fully enclosed steel building that has been and is used for commercial waste, C&D waste, and source separated recyclables transfer operations. Waste haul trucks enter the facility from the northeast and are directed to the scale adjacent to the Transfer Station Building before entering the building and the transfer station processing area through overhead doors. The loads are tipped directly onto the concrete tip floor within the building. Tipped waste is transferred from the tip floor using an excavator or front end loader and placed into open top transfer trailers on the tip floor. All loading occurs within the building. Loaded transfer trailers are then removed from the building, staged in the yard and covered. Transfer trailers containing solid waste are then hauled to a permitted landfill.

The facility typically operates Monday-Saturday, from 6 a.m. to 5 p.m. Commercial waste haul trucks start unloading during the 6 a.m. to 7 a.m. hour, and the facility is open to accept materials from the general public starting at 7 a.m. With the exception of the trucks entering and exiting the site, and the movement of the loaded transfer trailers, all waste activities typically take place within the enclosed Transfer Station Building which provides noise attenuation by design. Noise levels from truck traffic movement onsite is relatively low-level, as the trucks travel at low speeds while on the property because of site constraints which generally limit speeds to 10 mph or less; including vehicle turning movements and the small site footprint.

2.2 Project Description

The site has historically operated as a transfer facility since the late 1980s and is currently permitted to receive, handle and process 749 tons per day (tpd) of dry commercial wastes, construction and demolition (C&D) debris, and source-separated recyclables. WMNY proposes to accept MSW in addition to the current materials at the Port of Albany transfer facility with no

change to the currently permitted limit of 749 tpd. As described herein, noise from transfer facility operations is not anticipated to materially change as a result of the proposed modification. Based on the traffic analysis completed for the project (Traffic Analysis Report, B&L, November 2020), there will be no increase in the number of permitted truck trips (28 per hour during the peak hour per the traffic analysis) expected with the proposed permit modification. However, for the purpose of this noise assessment, current typical peak-hour truck trips and operations (current waste acceptance rates have been less than the permitted rate) were compared to future predicted peak-hour truck trips and operations as a result of the proposed permit modification. This noise assessment evaluates the current typical peak-hour conditions, current peak-hour conditions and proposed peak-hour conditions with regards to the number of trucks trips to the facility to determine the effect on sound levels generated from facility operations.

There is no anticipated change in noise generated from waste processing operations due to the change in the type of waste accepted at the facility. The MSW will be handled with the same type and number of pieces of equipment as current operations. This equipment will be operating within the transfer station structure, with the facility doors normally closed. The proposed project includes the installation of high speed doors that will normally be closed. It should be noted that the doors were open during the sound level measurements.

3.0 Noise Fundamentals

Noise is generally defined as unwanted, or intruding, sound in and around our environment. The degree of disturbance or annoyance of an intruding sound depends on various factors including the magnitude and nature of the intruding sound, the magnitude of the background or pre-development ambient sound levels present without the intruding sound, and the nature of the activity of people in the area where the noise is heard. As this *Operating Noise Impact Assessment* is assessing potential noise, or unwanted sound impacts, the terms “noise” and “sound” within this assessment may be used interchangeably.

The magnitude, or loudness, of sound waves (pressure oscillations) is described quantitatively by the terms sound pressure level, sound level, or simply noise level. Sound waves contain energy in the form of pressure and are measured along a logarithmic scale in units called decibels (dB). Decibels are used to quantify sound pressure levels just as degrees are used to quantify temperature and inches are used to quantify distance. The faintest sound level that can be heard by a young healthy ear is about 0 dB, a moderate sound level is about 50 dB, and a loud sound level is about 100 dB. Examples of various common outdoor sound levels are listed below (Table 1 excerpted from NYSDEC DEP-00-1).

To evaluate noise impacts and report time-varying sound levels it is common practice to measure the equivalent steady-state sound level (Leq). The Leq is defined as the equivalent steady-state sound level which contains the same acoustic energy as the time varying sound level during a specific time period (typically a one-hour period). In other words, the Leq is a constant sound level that has the same total (equivalent) energy as a time-varying sound, taken over a specified time period and includes both high frequency sound levels and low frequency sound levels and the associated duration of those sound levels. The Leq sound level is used to assess the effects of noise on people, and is also useful in establishing the ambient sound levels at receptor locations.

Sound levels are measured using a standardized instrument called a sound level meter. Sound level meters are designed and constructed in accordance to meet standards established by the American National Standards Institute (ANSI). Sound levels are measured via “weighting networks” corresponding to varying sound frequencies. The A-weighted scale, measured as dBA, most closely approximates how the human ear responds to sound at various frequencies, and is typically used for community sound level measurements. A-weighted sound levels are the accepted method of determining what may or what may not be considered an impact to humans by the NYSDEC, the New York State Department of Transportation (NYSDOT), the Federal Highway Administration, and the United States Environmental Protection Agency (USEPA). Further, NYSDEC solid waste regulations 6 NYCRR Part 360 require that the A-weighting scale be used in determining compliance; therefore, the A-weighted scale has been used in this *Operating Noise Impact Assessment*.

Table 1 Common Noise Levels		
Sound Source	dBA	Response Criteria
	150	
Carrier Deck Jet Operation	140	
	130	Painfully Loud Limit Amplified Speech
Jet Takeoff (200 feet) Discotheque Auto Horn (3 feet) Riveting Machine	120	
	110	Maximum Vocal Effort
Jet Takeoff (2000 feet) Shout (0.5 feet)	100	
N.Y. Subway Station Heavy Truck (50 feet)	90	Very Annoying Hearing Damage (8 hours, continuous exposure)
Pneumatic Drill (50 feet)	80	Annoying
Freight Train (50 feet) Freeway Traffic (50 feet)	70	Telephone Use Difficult Intrusive
Air Conditioning Unit (20 feet)	60	
Light Auto Traffic (50 feet)	50	Quiet
Living Room Bedroom	40	
Library Soft Whisper (15 feet)	30	Very Quiet
Broadcasting Studio	20	
	10	Just Audible
	0	Threshold of Hearing

Source: NYSDEC Program Policy DEP-00-1 Assessing and Mitigating Noise Impacts (NYSDEC, 2001)

3.1 Sound Levels Decrease Over Distance

In order to assess sound levels, it is also important to have an understanding of the way sound levels decrease (or attenuate) with distance. The decrease in sound level from any point sound source normally follows the “inverse square law.” That is, the sound pressure changes in inverse proportion to the square of the distance from the sound source. At distances beginning at approximately 10 feet from a point sound source, every doubling of the distance produces a 6 dBA reduction in the sound for point sources such as air conditioners, compressors, a rock concert, or a rock crusher. Therefore, a sound level of 70 dBA at 50 feet would have a sound level of approximately 64 dBA at 100 feet. At 200 feet, sound from the same source would be perceived as having a sound level of approximately 58 dBA. When assessing a line sound source such as a moving traffic stream on a highway, the sound levels will decrease by approximately 3 dBA per distance doubling over hard surfaces such as water, asphalt, or concrete; and between 5 and 6 dBA per distance doubled over grass or other soft surfaces.

4.0 Noise Criteria

The following sections provide a description of the noise criteria that apply to the facility as part of this *Operating Noise Impact Assessment*. The criteria include 6 NYCRR Part 360.19(j) and NYSDEC Program Policy *DEP-00-1 Assessing and Mitigating Noise Impacts*, NYSDEC, 2001 (NYSDEC Noise Policy). 6 NYCRR Part 360 has specific noise level limits that apply to 6 NYCRR Part 360 solid waste permitted facilities, while NYSDEC DEP-00-1 establishes accepted noise level thresholds based on land use types, setting, sensitive receptor locations, and acceptable noise level increases at sensitive receptor locations resulting from a proposed action.

4.1 6 NYCRR Part 360 Regulations

The NYSDEC 6 NYCRR Part 360 regulations for Solid Waste Management Facilities regulate noise from solid waste management facilities. Part 360.19(j) regulates noise levels resulting from equipment or operations at these facilities. Part 360.19(j) states:

(j) The owner or operator of a facility must ensure that noise (other than that occurring during construction of the facility) resulting from equipment or operations at the facility does not exceed the following energy equivalent sound levels beyond the property line owned or controlled by the owner or operator of the facility at locations authorized for residential purposes:

<i>Character of Community within one-mile radius of facility</i>	<i>Leq Energy Equivalent Sound Levels</i>	
	<i>7 a.m. – 10 p.m.</i>	<i>10 p.m. – 7 a.m.</i>
<i>Rural</i>	<i>57 dBA</i>	<i>47 dBA</i>
<i>Suburban</i>	<i>62 dBA</i>	<i>52 dBA</i>
<i>Urban</i>	<i>67 dBA</i>	<i>57 dBA</i>

The Leq is the equivalent steady-state sound level which contains the same acoustic energy as the time varying sound level during a one-hour period. It is not 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. If the background sound level exceeds the referenced Leq sound level limit, the Leq sound levels from facility sources and background sources when combined must not exceed the Leq sound level of the background sources alone by more than three decibels (A).

The facility is considered to be located in an urban area, and as such, the urban noise limits contained in 6 NYCRR 360.19(j) apply. The regulatory limit for sound from operations during daytime periods is an hourly equivalent (Leq) sound level of 67 dBA received beyond the facility property line in urban areas authorized for residential purposes. The limit for operations during nighttime periods between 10:00 p.m. and 7:00 a.m. is an hourly equivalent Leq sound level of

57 dBA beyond the facility property line in urban areas authorized for residential purposes. The sound level limits are focused on the property lines of the closest neighboring parcels that are authorized for residential uses. The site is bordered by industrial and commercial use facilities, and the nearest residential use property is located approximately 1,000 feet to the northwest. The site's current normal waste receiving hours occur Monday through Saturday from 6:00 a.m. to 5:00 p.m.; therefore, both the nighttime and daytime Part 360 noise limits are applicable. Commercial waste haul trucks start unloading during the 6 a.m. to 7 a.m. hour. The hours of operation upon which this review is based are not proposed to change.

In accordance with 6 NYCRR 360.19(j), the facility maintains appropriate mufflers on all internal combustion powered equipment used at the facility.

4.2 SEQRA Assessment

In addition to comparing sound levels to the 6 NYCRR Part 360 noise level limits, the facility was also evaluated for potential impacts pursuant to criteria developed by NYSDEC for purposes of environmental impact reviews under the State Environmental Quality Review Act (SEQRA) using the NYSDEC Noise Policy. Although this document is not an enforceable regulation, or an enforceable noise code or ordinance, this document provides the Department's guidance for completing noise impact assessments.

The NYSDEC policy includes the following thresholds for significant sound pressure level (SPL) increases:

"The goal for any permitted operation should be to minimize increases in sound pressure level above ambient levels at the chosen point of sound reception. Increases ranging from 0 to 3 dB should have no appreciable effect on receptors. Increases from 3 to 6 dB may have potential for adverse noise impact only in cases where the most sensitive of receptors are present. Sound pressure increases of more than 6 dB may require a closer analysis of impact potential depending on existing SPLs and the character of surrounding land use and receptors. SPL increases approaching 10 dB result in a perceived doubling of SPL. The perceived doubling of the SPL results from the fact that SPLs are measured on a logarithmic scale. An increase of 10 dB(A) deserves consideration of avoidance and mitigation measures in most cases. The above thresholds as indicators of impact potential should be viewed as guidelines subject to adjustment as appropriate for the specific circumstances one encounters."

The NYSDEC policy further states: "In non-industrial settings the SPL should probably not exceed ambient noise by more than 6 dB(A) at the receptor. An increase of 6 dB(A) may cause complaints. There may be occasions where an increase in SPLs of greater than 6 dB(A) might be acceptable. The addition of any noise source, in a nonindustrial setting, should not raise the ambient noise level above a maximum of 65 dB(A). This would be considered the "upper end" limit since 65 dB(A) allows for undisturbed speech at a distance of approximately 3 feet.

Ambient noise SPLs in industrial or commercial areas may exceed 65 dB(A) with a high end of approximately 79 dB(A)."

The NYSDEC policy describes the use of the Equivalent Sound Level (Leq) "which assigns a single value of sound level for a period of time in which varying levels of sound are experienced over that time period. The Leq value provides an indication of the effects of sound on people. It is also useful in establishing the ambient sound levels at a potential noise source." Measured Leq sound levels are used in this assessment.

5.0 Facility Sound Level Measurements

In order to assess existing facility sound levels during an typical day of operation, acoustical measurements were made with calibrated sound level meters at locations adjacent to the site (as shown on Figure 1). Monitoring location M1 was located just outside north side of the facility north of the facility entrance. M2 was located within the fenced property along the western edge of the facility at a location on the facility property that is closest to nearest offsite residential receptor to the northwest, located approximately 1,000 feet away from the site.

5.1 Existing Facility Sound Level Measurements

Sound level measurements were conducted over a 24-hour period on October 13-14, 2020 in order to characterize the existing facility sound levels during a typical “average” day of operation, as well as ambient community sound levels during facility non-operational hours. All meters used in this noise assessment were calibrated by the manufacturer and/or vendor prior to use for field measurements. Vendor provided calibration records for the meters and calibrators are provided in Appendix A. All meters were also field calibrated for each monitoring event which were recorded on the meter output data.

Prior to initiating sound level measurements, field measurements of temperature and wind speed were recorded to verify that weather conditions were within the operating parameters recommended by the manufacturer of the noise meter. The conditions were clear, winds ranging from 1.8 to 11 mph and temperatures ranging from 37 to 64 degrees Fahrenheit; all within manufacturer operating parameters.

Each meter was calibrated before and after every sound level reading with a Quest QC-10 Calibrator to a standard of 114 dB. Following calibration, each meter was set up on a tripod at a height of approximately 5 feet above the ground, fitted with a manufacturer provided windscreen and set to record at an A-weighting and slow response settings (6 NYCRR Part 360 required settings). The equivalent steady state sound levels (Leq) were recorded by the meters on a continuous basis. During the sampling period, field observations regarding specific sources of noise that contributed to overall background sound levels were recorded by field personnel.

5.2 Current Peak-hour and Proposed Peak-hour Transfer Facility Operations

Additional sound level measurements were conducted at monitoring locations M1 and M2 on November 10, 2020. The purpose of these measurements was to characterize the current “peak” hour of transfer station operations, as well as the proposed “peak” hour of transfer station operations. Facility provided scale data and traffic study data was reviewed to determine the peak hourly number of waste haul trucks entering the facility of approximately 15 trucks per hour, as provided in the Traffic Analysis Report.

Because the facility typically receives a variable number of trucks, operations were staged in order to process the peak-hourly number of trucks that the facility currently receives based on the previous year of scale data truck counts. In order to measure source sound level data from the proposed peak number of trucks that the facility is anticipated to receive as part of the proposed permit modification, operations were also staged to simulate an estimated peak-hour truck traffic of 26 trucks per hour.

Prior to initiating the sound level measurements, field measurements of temperature and wind speed were recorded to verify that weather conditions were within the operating parameters recommended by the manufacturer of the noise meter. The conditions were clear, winds ranging from 2 to 8 mph and temperatures ranging from 39 to 68 degrees Fahrenheit; all within manufacturer operating parameters.

Each meter was calibrated before and after every sound level reading with a Quest QC-10 Calibrator to a standard of 114 dB. Following calibration, each meter was set up on a tripod at a height of approximately 5 feet above the ground, fitted with a manufacturer provided windscreen and set to record at an A-weighting and slow response settings (6 NYCRR Part 360 required settings). The equivalent steady state sound levels (Leq) were recorded by the meters on a continuous basis. During the sampling period, field observations regarding specific sources of noise that contributed to overall background sound levels were recorded by field personnel.

6.0 Measurement Results

The predominant source of operational sound observed at the site during daytime hours was the movement of trucks around the site, in particular the pick-up and drop-off of roll-off dumpsters. During the measurement events, other offsite noise sources, not related to the WMNY facility, were also observed. The primary contributor of ambient sound levels at the monitored locations was traffic noise from nearby I-787 and noise from the surrounding industrial facilities, in particular the adjacent metal scrapyard. The non-WMNY traffic from the nearby Boat Street also contributed to the ambient sound levels. Traffic along this roadway is mostly commercial due to the industrial nature of the facility location; most vehicles observed that traveled along Boat Street without entering the facility were tractor trailers. The offsite railways and associated rail traffic to the west of the facility were another ambient noise source. The railway is located between the facility and the nearest residential receptor, and I-787 is located to the north of the residential receptor.

Tables 2 and 3 provide the results of the existing ambient sound level and typical operational day sound level measurements at the two measurement locations measured on October 13-14th, 2020. Each table shows the A-weighted Leq measured during each on-hour period throughout the 24-measurement at each location. The highest hourly sound levels generally occurred between the hours of 7 AM and 8 AM, with Leq values of approximately 62 to 66 dBA at the two locations. The lowest hourly sound levels occurred between 9 PM and 10 PM with Leq values between about 48 and 56 dBA at the two sites. Note that the M1 sound level between 10 AM – 11 AM is elevated due to offsite noise sources not related to the transfer facility that occurred close to this meter measurement location.

**Table 2: M1 Port of Albany Transfer Facility 24-hour Noise Monitoring
October 13-14, 2020**

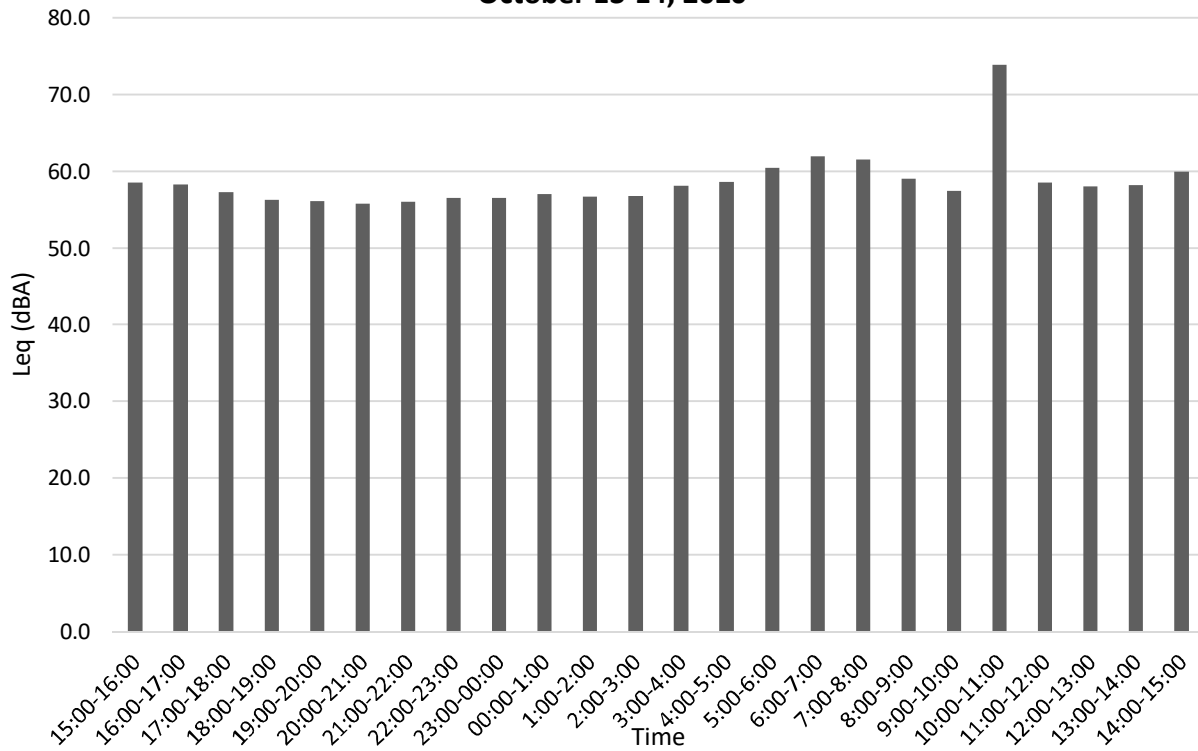
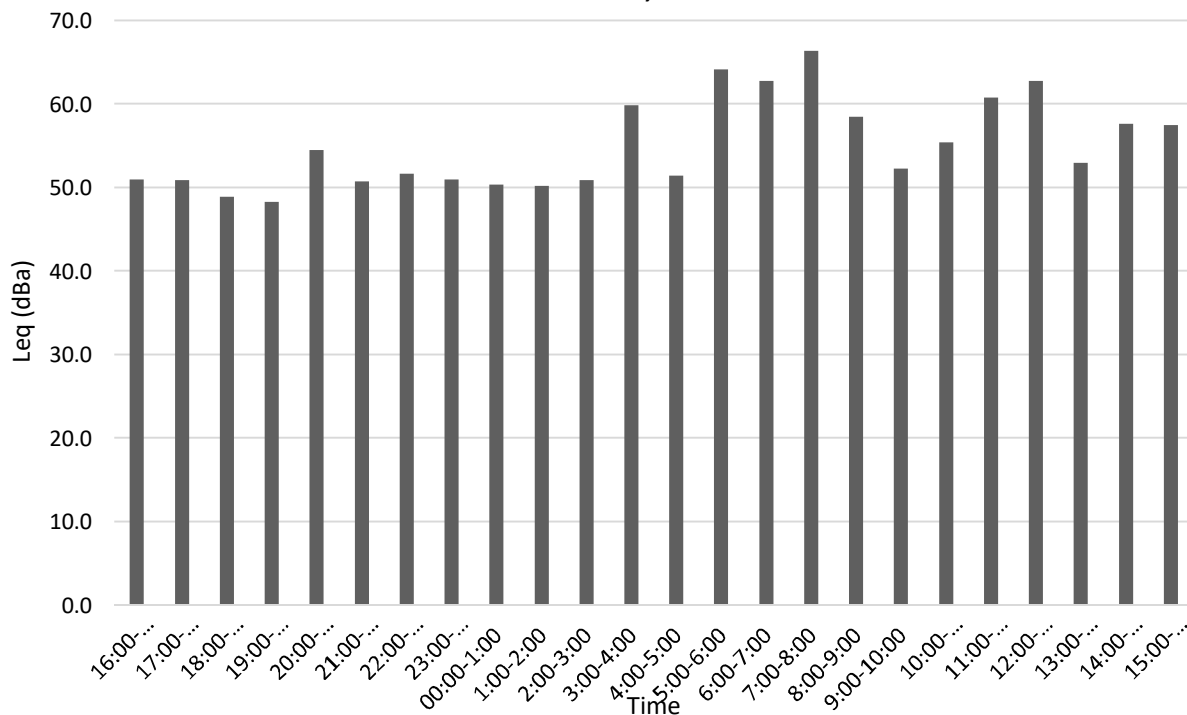


**Table 3: M2 Port of Albany Transfer Facility 24-hour Noise Monitoring
October 13-14, 2020**



Tables 4 and 5 provide the results from current and proposed peak-hour nighttime and daytime measurement periods, as well as the typical day measurement for the same time periods as the current and proposed peak hours were monitored.

Table 4 Measured Daytime Hourly Leq Sound Level Comparison 12:00 PM – 1:00 PM				
Measurement Location	Current Typical Day Leq (dBA)	Current Peak Leq (dBA)	Proposed Peak Leq (dBA)	Difference in Leq (dBA)
M1	58	60	61	1 - 3
M2	63	62	63	0 - 1

Table 5 Measured Nighttime Hourly Leq Sound Level Comparison 6:00 AM – 7:00 AM				
Measurement Location	Current Typical Day Leq (dBA)	Current Peak Leq (dBA)	Proposed Peak Leq (dBA)	Difference in Leq (dBA)
M1	62	59	61	0 - 3
M2	63	66	66	0 - 3

Note: Hourly Leq sound levels for the proposed peak periods are based on 30 minute periods to allow for them to be simulated by the facility to provide conservative measurements at the monitoring locations.

6.1 Proposed Operation - SEQ R Receptor Impact Assessment

The sound levels measured at the facility during the different operating scenarios were compared to determine the difference in levels to assess whether the proposed change in truck traffic from current typical conditions will have an appreciable increase in sound levels. Although the measurements were made at the facility property boundary, this overall change in sound levels can be propagated to nearby sensitive receptors to determine if there is the potential for a significant increase in sound levels as a result of the proposed change in operations at the facility as a result of the permit modification.

The following list of criteria from the NYSDEC Noise Policy was used for the assessment of potential offsite noise impacts:

- The goal for any permitted operation should be to minimize increases in sound pressure level above ambient levels at the chosen point of sound reception. Increases ranging from 0 to 3 dB should have no appreciable effect on receptors. Increases from 3 to 6 dB may have potential for adverse noise impact only in cases where the most sensitive of

receptors are present. Sound pressure increases of more than 6 dB may require a closer analysis of impact potential depending on existing SPLs (sound pressure levels) and the character of surrounding land use and receptors.

- The human reaction to increases in sound pressure level for an increase less than 5 dB is classified as unnoticed to tolerable.
- An increase of 10 dBA deserves consideration of avoidance and mitigation measures in most cases.

Based on the results of this assessment and as shown in Tables 4 and 5, the change in the sound level predicted at the facility property lines from current typical to proposed peak-hour truck acceptance rates is between 0 - 3 dBA for all locations; therefore, in accordance with the NYSDEC Noise Policy, there will be no appreciable effect on the community as a result of the proposed permit modification. As shown in Tables 4 and 5, the variation in truck traffic to the site does not have a significant impact in overall sound levels, indicating that offsite ambient noise is likely the predominant noise.

6.2 Proposed Operation - 6 NYCRR Part 360 Compliance

The facility property lines abut commercial/industrial facilities; therefore, the facility is not required to be monitored for Part 360 compliance per 6 NYCRR Part 360.19(J) because the Part 360 noise standards apply to residential properties. The nearest residential property is located approximately 1,000 feet to northwest. In order to demonstrate that the facility noise at that residential property line is in compliance with Part 360 noise limits, the measured peak hourly sound levels during the daytime and nighttime periods were projected to this location.

For the daytime period, the peak hourly sound levels onsite were less than the Part 360 noise standard of 67 dBA. Therefore, since sound levels decrease over distance, it can be concluded that the sound measured at the facility property line will be less than 67 dBA at the residential receptor property when propagated over 1,000 feet.

Sound level monitoring results show that the noise levels at the facility property line closest to the residential receptor property are greater than the 57 dBA nighttime Part 360 regulatory sound limits during the nighttime hours, primarily due to offsite local noise sources not related to the WMNY facility, and facility "start-up" including haul trucks idling and exiting facility for daily pick-ups. Therefore, in order to determine the noise level experienced at the Part 360 compliance location, this measured sound level was projected to the residential receptor location northwest of the site using distance doubling attenuation as described in Section 3.1. The distance from M2 to the main onsite noise source identified during the measurement periods, truck activity in the back parking lot near M2, was estimated to be approximately 100 feet. Using the distance doubling noise attenuation method as described in Section 2.1, assuming a 6 dBA reduction in sound level in every doubling of the distance from the source, the sound level measured at M2 during facility operations would decrease by approximately 20 dBA over the distance from the source to the nearest property line resulting a sound level of

approximately 46 dBA, resulting in sound levels well below the Part 360 compliance nighttime noise limit of 57 dBA.

It should also be noted that field personnel observed sounds adjacent to the nearest residential property during the measurement periods and reported that the predominant sources of noise were observed to be from vehicle traffic along I-787 and operational noise from the metal scrapyard and processing facility located south of the Transfer Station. Other noise sources included tractor trailer activity in an area west of the facility which appeared to be a soil stockpiling area and not related to the WMNY facility.

7.0 Noise Abatement Best Management Practices

Notwithstanding the fact that the facility is shown to comply with the 6 NYCRR Part 360 noise regulations, and the project is not expected to increase sound levels at nearby residential receptors, in an effort to further reduce noise generation and propagation, the facility also implements best management practices to reduce noise, including, but not limited to:

- Effective exhaust mufflers in proper working condition are maintained on all engine-powered equipment at the site as required by 6 NYCRR Part 360 regulations. Mufflers are inspected during routine maintenance and are replaced as necessary.
- Vehicles will be required to drive within a site speed limit of 15 mph when entering the site, on the site, and when leaving the site.
- WMNY will be installing high speed doors on the Transfer Station Building waste materials processing area as part of the proposed permit modification project to further reduce noise impacts from operations within the Transfer Station Building.

8.0 Summary and Conclusion

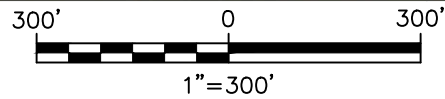
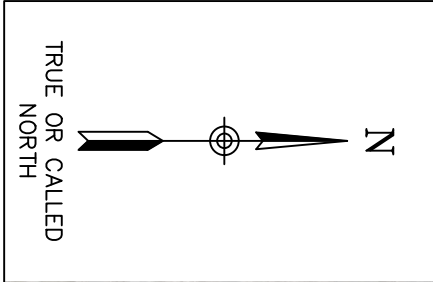
In order to further determine the current typical and future predicted noise impacts resulting from a proposed permit modification for the facility, an operating noise impact assessment was performed to compare current typical day sound levels, current peak-hour noise levels, and proposed peak-hour noise levels at the facility boundary. This assessment accounted for facility operational equipment as well as vehicles accessing the facility under these conditions. Sound level measurements for current typical peak-hour operating conditions and simulated future peak-hour operating conditions were measured based on the projected peak-hour truck traffic. This noise impact assessment for the operating transfer station concludes: (i) that there is no current noise impact at the nearest residential receptor property; (ii) that there is no appreciable increase in noise levels at the nearest residential receptor property due to the proposed permit modification; and that the current and predicted future peak-hour sound levels will comply with the NYSDEC Noise Policy criteria for the assessment of potential offsite noise impacts under SEQRA and the applicable operational noise limits of the NYSDEC Part 360 noise regulation.

Figure 1

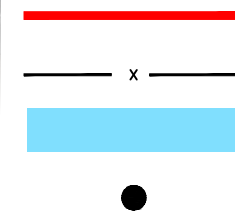
Site Plan

Plotted: Nov 20, 2020 - 9:08AM
Z:\BL-Vault\1 - Project Files\1.1 - View by Proj Num\2\Class\2\Folder-Active Only\1200\1242.062.002\CAD\1242.062.002_Noise_Figure - UPDATED.dwg

SYR By: gec



LEGEND



PORT OF ALBANY TRANSFER
STATION PROPERTY LINE

CHAIN LINK FENCE

TRANSFER STATION SITE

PART 360 COMPLIANCE - NOISE
MONITORING LOCATIONS

WASTE MANAGEMENT OF NY, LLC
PORT OF ALBANY TRANSFER STATION
PART 360 NOISE COMPLIANCE ASSESSMENT
SITE PLAN

**Barton
&Loguidice**

Date
NOVEMBER 2020

Scale
1"=300'

Figure Number
FIGURE 1

Project Number
1242.062.002

CITY OF ALBANY

ALBANY COUNTY, NEW YORK

Appendix A

Sound Level Meter Calibration Certificates



TSI INCORPORATED – OCONOMOWOC

Page 1 of 2

1060 Corporate Center Drive, Oconomowoc, WI 53066 USA
tel 651 490 2811 + toll free 800 245 0779 + web www.tsi.com

Certificate of Calibration

Certificate No: 852857 BJM090036

Submitted By: PINE ENVIRONMENTAL SERVICES INC
WINDSOR IND PARK 92 N MAIN ST
WINDSOR, NJ

Serial Number: BJM090036
Customer ID: 023812
Model: SOUNDPRO DL-1 SLM

Date Received: 2/26/2020
Date Issued: 4/21/2020
Valid Until: 4/21/2021

Test Conditions:

Temperature: 18°C to 29°C
Humidity: 20% to 80%
Barometric Pressure: 890 mbar to 1050 mbar

Model Conditions:

As Found: OUT OF TOLERANCE
As Left: IN TOLERANCE

SubAssemblies:

Description:

MICROPHONE B&K 4936 1/2 IN. ELECTRET
TYPE 1 PREAMP

Serial Number:

2785608
0117 2155

Calibration Procedure: 53V899

Reference Standard(s):

I.D. Number	Device
EF000104	QUEST-CAL
ET0000556	B&K ENSEMBLE

Last Calibration	Date Calibration Due
12/11/2019	12/11/2020
11/9/2019	6/18/2020

Measurement Uncertainty:

± 2.2% ACOUSTIC (0.19dB)
Estimated at 95% Confidence Level (k=2)

Calibrated By:

James Neuman
JAMES NEUMAN

Service Technician

4/21/2020

Reviewed By:

Paul H. Hegmann
Paul H. Hegmann

Technical Deputy

4/21/2020

This report certifies that all calibration equipment used in the test is traceable to NIST, and applies only to the unit identified under equipment above. This report must not be reproduced except in its entirety without the written approval of TSI Incorporated. For each calibration measurement within the stated tolerance or "Pass", there is at least 95% confidence in the decision that the error meets specification. Otherwise report as "Fail".





TSI INCORPORATED – OCONOMOWOC

1060 Corporate Center Drive, Oconomowoc, WI 53066 USA
tel 651 490 2811 + toll free 800 245 0779 + web www.tsi.com

Page 2 of 2

Certificate of Calibration

Certificate No: 852857 BJM090036

(A) indicates out of tolerance condition

Test Type	Nominal	Tolerance-	Tolerance+	As Found	As Left	Unit
Linearity/30 to 120/114dB	114.0	113.5	114.5	A 116.7	114.0	dB
Linearity/20 to 110/104dB	104.0	103.5	104.5	A 106.7	104.0	dB
Linearity/10 to 100/94dB	94.0	93.5	94.5	A 96.8	94.0	dB
Linearity/0 to 90/84dB	84.0	83.5	84.5	A 86.8	84.0	dB
Linearity/-10 to 80/74dB	74.0	73.5	74.5	A 77.1	74.0	dB
A Weighting/125Hz	97.9	96.9	98.9	A 100.6	98.0	dB
A Weighting/250Hz	105.4	104.4	106.4	A 108.2	105.5	dB
A Weighting/500Hz	110.8	109.8	111.8	A 113.6	110.9	dB
A Weighting/1kHz	114.0	113.5	114.5	A 116.7	114.0	dB
A Weighting/2kHz	115.2	114.2	116.2	A 117.6	114.9	dB
C Weighting/31.62Hz	111.0	110.5	111.5	111.2	111.2	dB
C Weighting/7943Hz	111.0	110.5	111.5	111.0	111.0	dB
Z Weighting/10Hz	114.0	113.5	114.5	113.7	113.6	dB
Flat Response/19950Hz	114.0	113.7	114.3	113.7	113.7	dB

* indicates non accredited

Appendix B

NYSDEC Noise Monitoring Protocol Correspondence

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Permits, Region 4

1130 North Westcott Road, Schenectady, NY 12306-2014

P: (518) 357-2069 | F: (518) 357-2460

www.dec.ny.gov

September 16, 2020

Jillian Blake, Senior Managing Engineer
Barton & Loguidice
443 Electronics Parkway
Liverpool, NY 13088
Sent via email: jblake@bartonandloguidice.com

RE: Response to Sound Level Monitoring Protocol
Waste Management of NY, LLC
Port of Albany Transfer Station
DEC #4-0101-00185/00002
100 Boat Street
City of Albany, Albany County

Dear Ms. Blake:

On August 7, 2020, the Department received a Sound Level Monitoring Protocol (Protocol) you submitted on behalf of Waste Management of NY, LLC (WM). The proposed sound level monitoring is being completed in support of providing additional documentation as requested in the Department's March 16, 2020 Notice of Incomplete Application (NOIA) for the proposed transfer permit modification.

After further review of the Protocol, the Department has the following comments:

1. The Department acknowledges that because the property lines abut commercial/industrial facilities, WM is not required to be monitored for Part 360 compliance per 6 NYCRR Part 360.19(j); however, noise monitoring must take place to analyze potential noise impacts under the State Environmental Quality Review Act (SEQR), which for this proposed project, includes an Environmental Justice (EJ) review.
2. Protocol Section 2.0 (Property Boundary Sound Level Measurements) indicates sound level measurements will be taken from 6AM to 7 AM and again during the peak operational daytime hour of 1PM-2PM. Protocol Section 4.0 (Data Reporting) indicates 'the noise assessment will include a discussion comparing the operational sound levels to the NYSDEC Part 360 Urban Community daytime sound level standard of 67 dBA (1-hour L_{eq}) and nighttime sound level standard of 57 dBA (1-hour L_{eq})'. Please note that if the ambient readings of daytime and nighttime are significantly different, the Department may require a 24 hr noise monitoring period during the noise evaluation. The Department requests the daytime and nighttime ambient readings be submitted to the Department, prior to completing the final report.



Department of
Environmental
Conservation

3. Comments 15-18 in the March 16, 2020 NOIA (attached) address traffic related items, which include comments about increased truck trips, staging locations of trucks, sizes of trucks, etc. It is noted the February 6, 2020 Enhanced Public Participation Plan, prepared by Behan Planning and Design, includes a 'Regional Overview Map Depicting Traffic Flow Pattern Port of Albany Transfer Station'; the primary truck routing plan would avoid the use of South Pearl Street in the vicinity of the Ezra Prentice homes and directs the hauling vehicles to the transfer station using South Port Road, Smith Boulevard and I-787 to Church Street. While the Protocol doesn't specify taking actual measurements at the areas where there may be the potential for truck traffic to impact the EJ communities, within your response to the NOIA, a discussion should be included on whether noise (and emissions) from vehicles will impact the EJ communities, and if not, why.

As currently presented, the Department approves the Protocol but does note the specific comments included above. Please feel free to contact me by telephone at (518) 357-2171 or by e-mail at angelika.stewart@dec.ny.gov if you have any questions.

Sincerely,



Angelika Stewart
Environmental Analyst

Enclosure: March 16, 2020 NOIA

cc via email: Jon Whitcomb, DMM R4
Kate Kornak, DEP R4
Warren Harris, WM



Department of
Environmental
Conservation



August 7, 2020

Angelika Stewart
Environmental Analyst
Division of Permits
New York State Department of Environmental Conservation
1130 North Westcott Road
Schenectady, New York 12306

Re: Waste Management
Port of Albany Transfer Station Permit No.
4-0101-00185/00002
Sound Level Monitoring Protocol
File: 1242.062.002

Dear Ms. Stewart:

On behalf of Waste Management of NY, LLC we are submitting the attached Sound Level Monitoring Protocol for the Department's approval. The proposed sound level monitoring is being completed in support of providing additional documentation as requested in the Department's March 16, 2020 Notice of Incomplete Application for the transfer station permit modification. The intent of the sound level monitoring is to assess the compliance of the existing operations with applicable noise standards of 6 NYCRR Part 360.19(j). This information will also be used in support of the assessment of proposed operating conditions for the facility.

In the interest of conserving resources, these documents are being submitted electronically for the Department's review; however, paper copies can be provided at the Department's request. Please feel free to contact me at (315) 457-5200 with any questions or to request paper copies.

Sincerely,

BARTON & LOGUIDICE, D.P.C.

Jillian M. Blake, P.E.
Sr. Managing Engineer

JMB2/jms

Attachment A – Sound Level Monitoring Protocol

ec: J. Whitcomb (jonathan.whitcomb@dec.ny.gov), NYSDEC Region 4

W. Harris (wharri11@wm.com), WM

T. Heaton (theaton@wm.com), WM

P. Richer (pricher@wm.com), WM

F. Confalone (fconfalone@wm.com), WM

**Waste Management of NY, LLC
Port of Albany Transfer Station
Sound Level Monitoring Protocol
August 2020**

Barton & Loguidice, D.P.C. (B&L), has prepared this Sound Level Monitoring Protocol for a sound level monitoring event to be conducted at the Waste Management of New York, LLC (WMNY) Transfer Station located at the Port of Albany (POA) in Albany, New York.

The purpose of this protocol is to identify the instrumentation, procedures, and proposed monitoring locations to be utilized to obtain sound level data during facility operations to assess compliance with the applicable noise standards of 6 NYCRR Part 360.19(j). This protocol has been prepared to meet the requirements of New York State Department of Environmental Conservation (NYSDEC) regulation 6 NYCRR Part 360.19(j), and NYSDEC program policy document “Assessing and Mitigating Noise Impacts, Feb. 2001”.

1.0 Instrumentation

The following instrumentation will be utilized by the Engineer conducting the monitoring:

1.1 Sound Level Meter and Calibrator

- Type 1, or Type 2, sound level meters that comply with the American National Standards Institute’s (ANSI) standards will be used to measure sound levels. Each sound level meter microphone will be fitted with a wind screen and mounted on a tripod at a height of approximately 5 feet above the ground. Each meter will have a data logger;
- An acoustical calibrator that conforms with the sound level meter field calibration requirements will be used to field calibrate the sound level meter before and after taking measurements; and,
- Factory calibration documentation for the sound level meter and acoustical meter calibrator will be provided by the equipment suppliers, certifying that laboratory calibrations for each instrument is current.

1.2 Electronic wind speed indicator used to measure ambient wind speed and direction, a thermometer for measurement of ambient temperature, and a barometer for measurement of atmospheric pressure. Alternatively, weather data may be obtained from the site or nearest weather station.

2.0 Property Boundary Sound Level Measurements

B&L will complete sound level measurements at the transfer station west property line which has residential receptor property locations nearest to the proposed facility (approximately 1,000 feet west of the facility and across several railroad tracks) in accordance with NYSDEC noise assessment guidance to establish the existing sound levels while the facility is in operation. Although this property line directly abuts railroad tracks (not used for facility operations), and therefore Part 360 compliance is not required to be met at this location because it is not authorized for residential purposes, monitoring at the facility property line will provide a conservative way of assessing facility compliance. The remaining three facility property lines abut commercial/industrial facilities, and therefore are not required to be monitored for Part 360 compliance per 6 NYCRR Part 360.19(j).

The facility hours of operation are 6 A.M. to 5 P.M.; therefore, NYSDEC defined daytime hours (7 A.M. to 10 P.M.) and nighttime hours (10 P.M. to 7 A.M.) require assessment to determine compliance with the daytime and nighttime noise standards of Part 360. Sound level measurements will be taken from 6 A.M. to 7 A.M., and during the peak operational daytime hour of 1 P.M. – 2 P.M., using two (2) sound level meters.

3.0 General Monitoring Procedures

At each sound level monitoring location, field measurements of temperature, atmospheric pressure and wind speed will be recorded prior to initiating sound measurement. Sound level monitoring is weather dependent; therefore, measurements will not be taken during periods of precipitation, or when the measured wind speed is at or above 12 miles per hour (mph).

Each sound level meter will be calibrated immediately before commencement of, and immediately after completion of, each series of measurements, with a manufacturer provided acoustical calibrator. Following each calibration, the results will be recorded on field logs. A wind screen provided with the meter will be installed on the meter microphone. The meter will be set to “slow” response and A-weighting scale (dBA) in accordance with 6 NYCRR Part 360.19(j) solid waste facility noise regulations.

Each sound level meter will be equipped with a data logger programmed to record the sound pressure level (SPL) and equivalent steady-state sound level (Leq) during the measurement period. Field observations of audible sounds and sources will be made by B&L field personnel during the monitoring period.

The exact day of the study will depend on the weather, and will be scheduled during typical facility operations.

4.0 Data Reporting

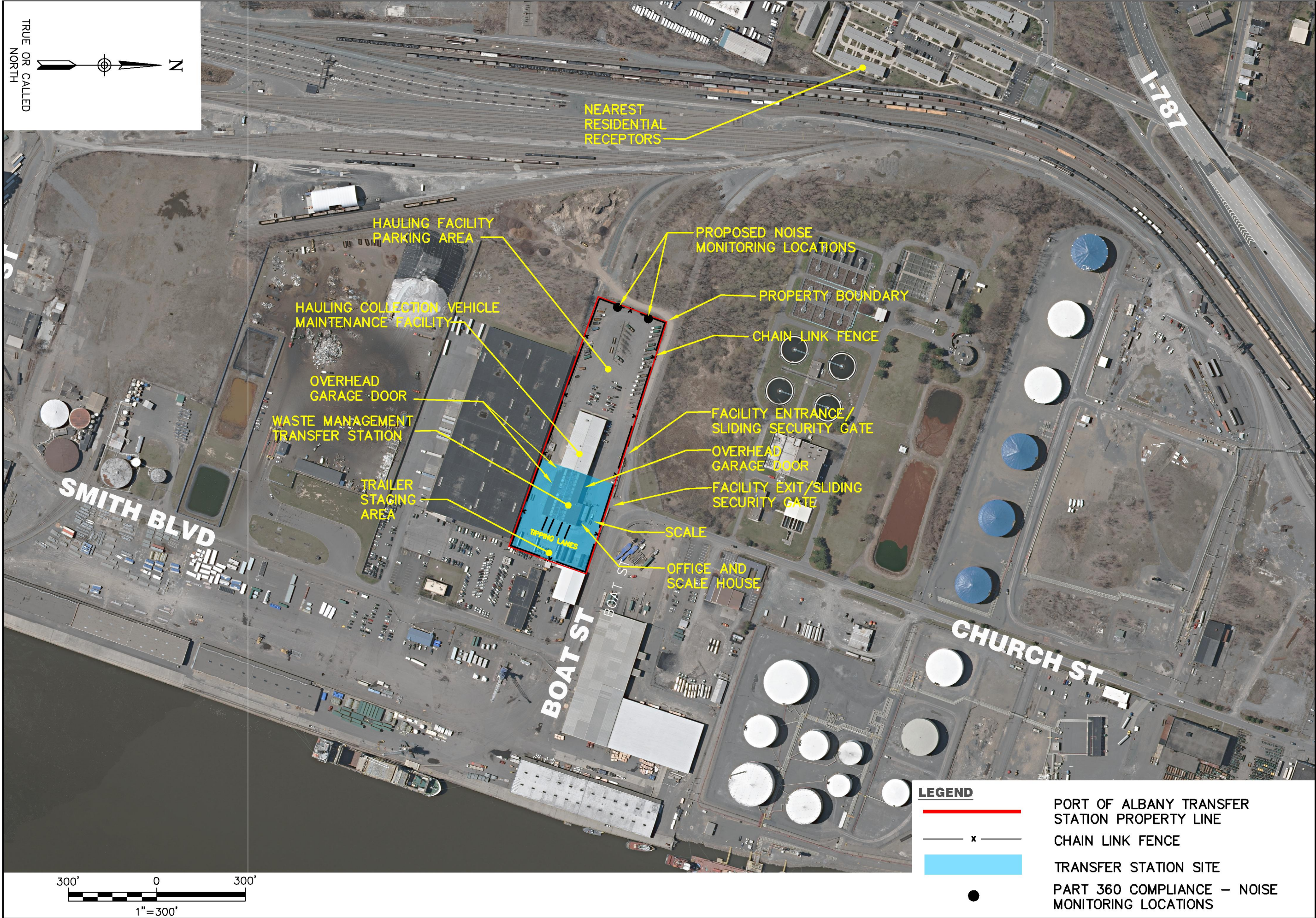
The sound level monitoring data will be recorded by the sound level meter data loggers. Following data collection, the recorded data will be downloaded for analysis to determine the sound levels used to assess facility Part 360 compliance. A final report will summarize the methods and equipment utilized, and field observations of noise sources identified during the monitoring. The report will include a summary of the results of the measured operational sound levels and a figure showing the facility property boundary and the nearest residential receptor locations. The noise assessment will include a discussion comparing the operational sound levels to the NYSDEC Part 360 Urban Community daytime sound level standard of 67 dBA (1-hour Leq) and nighttime sound level standard of 57 dBA (1-hour Leq).

If the operating noise data indicates that the facility operations exceed the industrial setting noise limits at the monitored locations, then background sound level readings may need to be completed when the facility is not in operation per Part 360.19(j), which would be conducted on a separate day in accordance with this protocol. Alternatively, sound level projections to the residential receptor properties may be calculated in accordance with NYSDEC program policy document to determine compliance.

Figure 1

Sound Level Monitoring Locations

Plotted: Aug 07, 2020 - 10:32AM SYR By: JMB2
Z:\BL-Vault\18217AD2-1C71-4823-8927-99D5C4054147\0\2097000-2097999\2097370\1\1242.062.002_Noise_Figure (ID 2097370).dwg



WASTE MANAGEMENT OF NY, LLC PORT OF ALBANY TRANSFER STATION PART 360 NOISE COMPLIANCE ASSESSMENT SITE PLAN		ALBANY COUNTY, NEW YORK
Barton & Loguidice		
Date	AUGUST 2020	
Scale	1"=300'	
Figure Number	FIGURE 1	
Project Number	1242.062.002	

The experience to
listen
The power to
solveSM

Barton
&Loguidice

www.bartonandloguidice.com