

# **Guidelines for the Investigation of Noise Complaints Pursuant to the State of New Jersey *Noise Control Regulation (N.J.A.C. 7:29)* and the *Model Noise Control Ordinance***

## **I. Introduction**

These Guidelines have been developed to ensure consistency for the investigation of noise violations pursuant to the State of New Jersey *Noise Control Regulation* (State Code) and the *Model Noise Control Ordinance* (Model Ordinance) and are based on New Jersey Department of Environmental Protection (NJDEP) policies and procedures. The Model Ordinance was developed by the NJDEP and the State of New Jersey Noise Control Council (Council) and is made available for adoption by municipalities which desire to have increased local authority for noise enforcement and expanded enforcement provisions as compared to the State Code.

The Noise Control Act, N.J.S.A. 13:1G-1 et seq., was enacted in 1971 (The Act). The Act provides, at N.J.S.A. 13:1G-2, that the people of New Jersey should be ensured an environment that is free from noise which unnecessarily degrades the quality of life; that the levels of noise in communities have reached a degree which endangers the health, safety and welfare of the people of the State; and that this threat can be abated by the adoption and enforcement of noise standards.

The Act also created a Noise Control Council (Council) that consists of 13 members; nine of whom are appointed by the Governor and four of whom are designees from specific departments in State government (N.J.S.A. 13:1G-17). Among other responsibilities, the Council is authorized to study the codes, rules and regulations promulgated by the NJDEP with regard to noise control and to make recommendations to the Commissioner of the NJDEP for improvements. The Council is also authorized to hold public hearings concerning existing noise control statutes and regulations as well as the state of the art and technical capabilities and limitations in noise control, and to report its recommendations to the Commissioner of the NJDEP. In addition, the Council has the authority to veto the adoption, amendment or repeal of any rule before the Commissioner promulgates it (N.J.S.A. 13:1G-18).

“In the early 1970s, the Department of Health, the NJDEP, and the Council worked together to draft standards for the levels of sound emanating from stationary industrial and commercial operations. In 1974, the NJDEP promulgated these standards at N.J.A.C. 7:29, entitled, *Noise Control* (State Code). The standards developed are health-based and are designed to prevent the deleterious physical effects that may result from exposure to excessive noise. The standards were based on information dealing with speech interference and sleep interruption. Specifically, daytime sound levels were determined by speech interference criteria, while nighttime levels were dictated by sleep interruption information.”<sup>1</sup>

The State of New Jersey *Noise Control Regulation*, N.J.A.C. 7:29, authorized by the *Noise Control Act of 1971* (N.J.S.A. 13:1G, et seq.) provides the basis for noise compliance and

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<sup>1</sup> Derived from the NJ Register (42 N.J.R. 3024(a)) as part of the background information provided by NJDEP for the re-adoption of N.J.A.C. 7:29, December 20, 2010.

enforcement throughout the State of New Jersey. The State Code is subject to re-adoption every seven years. This time schedule is intended to allow for periodic modifications to the regulation in response to community issues and changes in noise control strategies and technologies.

## II. The State Code as compared to the Model Ordinance

The Model Ordinance is provided by the NJDEP as guidance for municipalities to follow when adopting a noise control ordinance pursuant to the State's Noise Control Act and seeking to establish specific decibel-denominated performance standards to control noise. All such ordinances must be submitted for written approval to the NJDEP, including an ordinance that is identical to the Model Ordinance.<sup>2</sup> The Model Ordinance, if adopted by a local jurisdiction, allows for additional provisions to control noise in their community while ensuring consistency with the State Code.

The Model Ordinance differs from the State Code in that it allows for additional source categories such as residential, public space, and motor vehicles on a public right-of-way. It also provides for enforcement of noise for multi-family and multi-use facilities. The other significant difference is that the permissible limits in the Model Ordinance are slightly more restrictive in that they must not be equaled or exceeded; whereas, the limits in the State Code must not be exceeded.

## III. Guidance Policies and Procedures

The policies and procedures outlined in these Guidelines are meant to provide clarification to the State Code and Model Ordinance. While the State Code provides detailed "Procedures For the Determination Of Noise From Stationary Sources" at N.J.A.C. 7:29-2, the NJDEP has made further clarifications and interpretations of *Acceptable Test Methods* and *Measurement Principals* pursuant to the authority granted at N.J.A.C. 7:29-2.2 and N.J.A.C. 7:29-2.3. These guidelines have been developed by the New Jersey Noise Control Council in cooperation with the Rutgers Noise Technical Assistance Center and the NJDEP and were, in part, in response to inquiries by the regulated and regulatory communities.

The policies and procedures contained herein have been incorporated into the curriculum of the NJDEP sanctioned professional training course, *Community Noise Enforcement Certification*<sup>3</sup> offered at Rutgers University and, as such, this information is disseminated to the regulatory community who are statutorily required to attend this course. The NJDEP regularly reviews and

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<sup>2</sup> **§13:16-21 (Noise Control Act of 1971)**. Nothing in this act or in any code, rules, regulations, or orders promulgated pursuant thereto shall preclude the right of any governing body of a municipality or county board of health, subject to the approval of the department, to adopt ordinances, resolutions or regulations which establish specific standards for the level or duration of community noise more stringent than this act or any code, rules, or regulations promulgated pursuant thereto.

<sup>3</sup> **§7:29-2.11 (State Code)**. Qualifications of Enforcement Personnel. For Purposes of this chapter, an employee representing an authorized enforcement agency shall be considered qualified to make noise measurements and enforce the State's Noise rules or a municipal noise ordinance approved by the Department, as the case may be, if such person completes a noise certification course, and is recertified, at least once every two years, at a noise certification course which is offered by the Department of Environmental Sciences of Cook College, Rutgers, the State University.

approves the course content. Some of the policies and procedures, in these Guidelines, have been, in the past, provided on a case-by-case basis, in response to a specific line of inquiry. By providing these policies and procedures in a single document it will greatly improve the dissemination of this information to all interested parties.

These Guidelines reflect current NJDEP compliance and enforcement policies and procedures. The Guidelines may be updated from time to time and the most recent version made available on the NJDEP website at: [www.nj.gov/dep/enforcement/noise-intro.html](http://www.nj.gov/dep/enforcement/noise-intro.html).

The specific policies and procedures of these Guidelines are as follows:

**A. Measurement Duration (“2-10-30 minute rule”)**

The “2-10-30 minute rule” (The Rule) refers to the minimum duration for the measurement of the neighborhood residual sound level, the total sound level and minimum time the investigator is to be onsite in association with the investigation, respectively. This Rule has been taught in the *Community Noise Enforcement Certification* course for many decades.

It has long been the policy of the NJDEP that the measurement duration for the determination of the Neighborhood Residual Sound Level shall be a minimum of 2 minutes and the measurement duration for the determination of the Total Sound Level shall be a minimum of 10 minutes<sup>4</sup>. The measurements need not be continuous so long as the cumulative measurement time meets or exceeds the minimum measurement durations stated above. The Rule also requires that the investigator to be onsite in association with the investigation for a minimum of 30 minutes.

While the State Code requires that the aggregate duration of Total Sound Level measurements must be 10 minutes, it does not specify the duration of each sampling period. If a sound source is steady state, it is recommended that the investigator conduct five 2-minute samples. If a sound under investigation is not steady state, the length of a measurement sample should be chosen relative to the characteristics of the source (i.e., duty cycle – duration and frequency of noise events). If a source's emissions are cyclical, at least one sample should be conducted entirely within the elevated portion of the cycle, so long as the sample duration is greater than one second, as is required to be classified as "continuous airborne sound."<sup>5</sup>

The Rule does not apply to C-scale measurements. See Section L of this document and the Model Ordinance for additional details regarding C-scale measurements.

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<sup>4</sup> **§7:29-2.9(b)1.viii (State Code)**. Continue the test over a period of time sufficient to ensure that the sound levels measured are typical of the source under observation but in no event should the duration of the test be less than 10 minutes, unless the duration or duty cycle of the sound source under observation is less than 10 minutes.

<sup>5</sup> **§7:29-1.1 "Continuous airborne sound"** means sound that is measured by the slow response setting of a sound level meter in accordance with provisions of N.J.A.C. 7:29-2, and which lasts one second or longer.

## B. Duration of Exceedances Constituting a Violation

Calculation of the corrected source sound level is conducted pursuant to the requirements of the State Code at 7:29-2.10. If the corrected source sound level from any sample exceeds both the permissible sound level limit and the neighborhood residual sound level, then the source is in violation of the State Code, regardless of whether other samples yield corrected source sound levels that do not exceed the limit. While there is the requirement for 10 minutes of total sound measurements, the source does not have to exceed the permissible sound level limit for this entire duration to be found in violation.

## C. Extraneous Sounds and Logged Measurements

Extraneous sound sources (i.e., intermittent sounds not from the source under investigation such as aircraft, a dog barking, a loud vehicle in otherwise steady traffic, vehicles on a street, etc.) must be excluded<sup>6</sup> from the measurements of total and neighborhood residual sound levels.

When an investigator utilizes the logging function of their sound level meter, if so equipped, the minimum and maximum logged measurements alone are not acceptable, as extraneous noise events must be excluded<sup>7</sup>. This is particularly important when measuring the Neighborhood Residual Sound Level. A logged maximum sound level (Lmax) must not be used to represent the Neighborhood Residual Sound Level if any extraneous sounds occurred during the logged measurement period. If logged sound level measurements are to be collected, field notes must be made in order to exclude extraneous sounds, and if possible, the "back erase" function should be employed, if the meter is so equipped.

## D. Selection of Receptor Location(s) to Assess Compliance

The State Code specifies that the location to determine regulatory compliance is "at or within the property line of any *affected person*."<sup>8</sup>

The State Code also specifies that "the investigator shall explore the vicinity of the suspected source on foot to identify any other sound sources which could affect measurements, to establish the appropriate location and character of the main sound sources, and to select suitable points from which to measure the sound from the suspected source and the neighborhood residual sound."<sup>9</sup>

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<sup>6</sup> **§7:29-2.9(b)1.vi (State Code)**. While making sound level measurements, observe whether the meter reading is increased by extraneous sound sources such as passing vehicles, aircraft flying overhead, barking dogs, etc. In such cases, postpone the sound measurement until the extraneous sound has abated.

<sup>7</sup> *ibid*.

<sup>8</sup> **§7:29-2.5(a)2 (State Code)**. Measurements shall be taken at or within the property line of any affected person. **§7:29-1.1 "Affected person"** means any person who has registered a noise complaint with an authorized enforcement agency that he or she is a receptor of noise on a protected property category, and said affected person has an interest in the protected property category as an owner, tenant, or employee.

<sup>9</sup> **§7:29-2.8(a) (State Code)**. Survey: Prior to taking noise measurements the investigator shall explore the vicinity of the suspected source on foot to identify any other sound sources which could affect measurements, to establish the appropriate location and character of the main sound sources, and to select suitable points from which to measure the sound from the suspected source and the neighborhood residual sound.

The State Code and Model Ordinance do not explicitly discuss the rationale for determining the location to assess compliance. However, this policy directs that sound level measurements should be taken at a location that represents where someone would reasonably recreate, repose and/or converse.

The point of compliance is generally at the property line of the *affected person* that is closest to the source under investigation unless this location is not where recreation, repose or conversation would reasonably occur.

In some circumstances sound attenuating features, at or near the property line, such as a building, sound barrier, earthen berm or topographical feature, may result in an “acoustical-shadow” at or near the property line which may significantly lower the sound level at or near the property line. In these cases, it is generally not reasonable to conduct measurements within the “acoustical shadow” since it does not reasonably represent the sound levels received at the property of an *affected person*. Sound level measurement(s) conducted farther into the affected person’s property where the sound levels received from the source under investigation are influenced less by the sound attenuating features, at or near the property line, may be significantly higher and such a location would more likely represent a more appropriate location to determine compliance. It would not be reasonable to simply elevate the microphone of the sound level meter at a location, at or near the property line, to a height above the sound attenuating feature if this would not represent a location where recreation, repose or conversation would reasonably occur. That said, there are circumstances where utilizing an elevated sound level meter microphone would be appropriate if it represents a location where someone would reasonably recreate, repose or converse (e.g., elevated porch, balcony, upper floor window).

During daytime hours of 7 AM to 10 PM, the permissible limit of 65 dBA for continuous airborne sound is applicable. This level is meant to protect speech at a distance of approximately 3 feet (1 meter) at a normal voice level (i.e., no need to elevate the volume of speech due to noise from the source under investigation when conversing at this distance).

During nighttime hours of 10 PM to 7 AM the permissible limit of 50 dBA for continuous airborne sound is applicable. This level is meant to protect sleep. The nighttime standard sets an outdoor permissible sound level of 50 dBA to achieve an indoor goal of 35 dBA which is conducive to sleep (a difference of 15 dB). A building of standard construction, with windows partially open, will provide 15 dB (approximate national average) of sound attenuation.<sup>10</sup>

In some cases, it is reasonable to assess compliance with the nighttime standard outside the window of a residential building since this location may represent the most direct sound path and the highest sound level, even though it may not be the closest location to the sound source under investigation. These measurements can be taken from the window itself by extending the sound level meter or microphone outside the window or extending the microphone to the elevation of the window from outside the structure. When conducting sound level measurements in close proximity to a potentially reflective surface (e.g., building façade, window, and sound barrier) the microphone should be located and oriented to minimize reflected sound. It may not be

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<sup>10</sup> *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*, U.S. Environmental Protection Agency, Washington D.C., March 1974.

reasonable to utilize a receptor location outside of a window to assess compliance with the daytime standard since it is not possible to recreate, repose or converse, or otherwise use the space, outside a window and; furthermore, unlike the nighttime standard, the daytime standard is not meant to serve as a surrogate for an interior sound level (i.e., to protect sleep). However, if there is no outdoor location at which to assess compliance with the daytime standard it would not be appropriate for a facility listed as a source property category to operate unfettered. Therefore, in this circumstance, a daytime measurement conducted outside a window may be appropriate. Such a circumstance would likely be associated with a multi-story residential building in which there are no balconies and the outdoor space(s) at the property, if any, do not reasonably represent the sound levels at the complainant's property. If a noise source is also active during nighttime hours, it would likely be more appropriate to conduct sound level measurements – at such a time – when the permissible limits are more restrictive.

When a receiving property of an *affected person* is a commercial property or community service facility the permissible limit for continuous airborne sound is 65 dBA, at all times, since there is only a rationale for protection of speech; not sleep. As is the case for an *affected person* at a residential property, this policy directs that sound level measurements be taken at a location, at or within the property line of a commercial property or community services facility, that represents where someone would reasonably recreate, repose and/or converse. In some circumstance such a location will not exist. Examples of commercial properties and community service facilities where compliance with the daytime standard would be warranted to protect speech may include outdoor areas where workers and/or customers would engage in conversation on a regular basis. In contrast, examples of commercial properties and community service facilities where there may not reasonably be an *affected person* include: commercial facilities with no outdoor activities such as an office building surrounded by an asphalt parking lot where there is not a location on the site where a person would reasonably recreate, repose and/or converse, being that the entire outdoor area is used for purposes such as vehicle parking, deliveries, trash bin storage; and, a facility that operates noise-generating sources onsite that are somewhat similar, in terms of their noise impacts.

There are three criteria that should be considered when determining whether to assess the compliance status for a commercial or community service facility, as a receiving property. These criteria are:

1. Does the facility have outdoor activities;
2. Is there a need for verbal communications in conjunction with the outdoor operations;
3. Does the facility generate appreciable sound emissions and are those sound emissions somewhat similar in terms of duration and intensity (e.g., vehicular traffic on-site, HVAC equipment, outdoor equipment, etc.) to the facility under investigation?

If the receiving facility has outdoor activities and has a need for verbal communication, there may be a rationale under this policy to assess compliance. However, if the facility generates sound emissions that are somewhat similar – in terms of duration and intensity – to the facility under investigation, it may not be reasonable to consider that there is an *affected person* at the receiving property.

The policies and procedures regarding how and where to select receptor location(s) to assess compliance are applicable to the measurements taken pursuant to all permissible limits of the State Code and Model Ordinance including Total Sound Levels, Neighborhood Residual Sound levels, Impulsive Sound Levels and Octave Band Sound Levels.

The selection of a suitable location(s)<sup>11</sup>, on the property of an *affected person*, to conduct sound level measurements is in the discretion of the certified noise investigator based on the provisions of the State Code and Model Ordinance, the policies and procedures of the NJDEP and the information provided as part of the curriculum of the NJDEP sanctioned professional training course, *Community Noise Enforcement Certification*<sup>12</sup> offered at Rutgers, the State University.

### **E. Prospective Compliance -- Land use and zoning issues**

Although the State Code and Model Ordinance are cited in numerous local land-use codes, or are otherwise used as the basis for determining prospective compliance for projects subject to land use planning approval (e.g., applications before planning or zoning boards), these regulations were not developed for this purpose. The State Code and Model Ordinance were developed solely as enforcement regulations to address exceedances of the permissible limits, found in these regulations, in response to a complaint by an *affected person*.<sup>13</sup> The general framework of noise regulation in the State of New Jersey is based on the concept that an exceedance of the permissible limits of the State Code and Model Ordinance, are not a violation of either regulation, absent a complainant. Therefore, to be consistent with these regulations when determining prospective compliance, it is necessary to consider whether it is reasonable that an *affected person* would exist – post-construction – based on the specific circumstances related to the proposed project under review.

When the State Code or Model Ordinance is utilized to prospectively assess compliance for a facility that has yet to be constructed or for a facility that is proposing to modify its operations or facilities, a determination needs to be made as to whether an *affected person* would reasonably exist. The policies and procedures discussed in this document – in conjunction with the details

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<sup>11</sup> **§7:29-2.8(a) (State Code)**. Survey: Prior to taking noise measurements the investigator shall explore the vicinity of the suspected source on foot to identify any other sound sources which could affect measurements, to establish the appropriate location and character of the main sound sources, and to select suitable points from which to measure the sound from the suspected source and the neighborhood residual sound.

<sup>12</sup> **§7:29-2.11 (State Code)**. Qualifications of Enforcement Personnel. For Purposes of this chapter, an employee representing an authorized enforcement agency shall be considered qualified to make noise measurements and enforce the State's Noise rules or a municipal noise ordinance approved by the Department, as the case may be, if such person completes a noise certification course, and is recertified, at least once every two years, at a noise certification course which is offered by the Department of Environmental Sciences of Cook College, Rutgers, the State University.

<sup>13</sup> **§7:29-1.2(a) (State Code)**. No person shall cause, suffer, allow, or permit sound from any industrial, commercial, or community service facility that, when measured at any residential property line of any affected person, is in excess of any of the following: **§7:29-1.1 (State Code)**. "**Affected person**" means any person who has registered a noise complaint with an authorized enforcement agency that he or she is a receptor of noise on a protected property category, and said affected person has an interest in the protected property category as an owner, tenant, or employee.

associated with the proposed project – should be considered when determining whether an *affected person* would reasonably exist. If it is determined that an *affected person* would reasonably exist, post-construction, then the policies and procedures in Section B of these Guidelines should be referred to in selecting appropriate receptor locations at which to assess prospective compliance.

## **F. Weather Conditions**

### **1. Wind Speed**

The subject of wind speeds in excess of 12 MPH is referenced in three sections of the State Code (and by reference in the Model Ordinance):

§7:29-2.5(a)5. No outdoor measurements shall be made:

- i. During periods when the wind speed exceeds 12 miles per hour (including gusts).

§7:29-2.8(c). Wind speed measurement: The investigator shall measure the wind speed at the measurement site with an appropriate wind meter. If the wind speed does not exceed 12 miles per hour (5.4 meters per second), proceed using a sound level meter equipped with a wind screen. When the wind speed exceeds 12 miles per hour (5.4 meters per second), including gusts, sound level readings shall not be made, but shall be postponed until the wind speed decreases below 12 miles per hour (5.4 meters per second).

§7:29-2.9(b)1.ix. ... if the wind speed has increased to greater than 12 miles per hour (5.4 meters per second), then measurements taken since the previous calibration check shall be considered invalid.... Wind gusts over 12 miles per hour (5.4 meters per second) that begin after at least one hour of measurements shall not invalidate measurements already collected.

The restriction of 12 MPH applies to where the measurements are made, i.e., in the vicinity of the microphone location. Otherwise consistent with these provisions, sound level measurements may be conducted in a “protected area” (e.g., behind a barrier or building), not in the direct path of the wind, where the wind speed is below 12 MPH, provided the measurements reasonably represent the Total Sound Level and the Neighborhood Residual associated with the facility under investigation.

When the investigator moves to a new measurement location (e.g., “alternative location” as described at N.J.A.C. 7:29-2.9(b)2), and wind conditions appear noticeably different from prior wind speed measurements, the wind speed should be measured to ensure the wind speed does not exceed 12 MPH. It is worth noting that excessive wind speeds would increase, rather than decrease the measured Neighborhood Residual Sound Level. A higher Neighborhood Residual Sound Level when subtracted from the associated Total Sound Level would result in a lower Corrected Sound Level which is to the benefit of the source under investigation.



## 2. Temperature

Sound level measurements shall not be conducted when the temperature is below 14° F or above 122° F. The temperature should be recorded to verify that the measurements were conducted within the aforementioned temperature range.

### **G. Emergency Generator Use at an Industrial, Commercial or Community Services Property**

The use of an emergency generator at an Industrial, Commercial or Community Service Property is explicitly exempt from the provisions of the State Code during an electrical outage.<sup>14</sup>

Weekly or periodic testing of emergency generators must comply with the State established sound level standards. In addition, the use of generators during the course of an emergency is exempt from the State's sound level standards in accordance with N.J.A.C. 7:29-1.4(4). The term "Emergency" is defined at N.J.A.C. 7:29-1.1 and means an "unexpected occurrence or situation resulting from natural or unnatural causes which endangers or has the potential to endanger the health, safety or resources of citizens or a municipality (emphasis added), and as such, necessitates prompt action and response on the part of emergency services personnel."

If the use of the emergency generator is consistent with the definition of the term "Emergency" as found above, the sound level would be exempt from regulation under the State Code.

### **H. Emergency Generator Use at a Residential Property**

Currently, there is no exemption for residential use of an emergency generator. Such units, whether portable or standby, are subject to the permissible limits of the State Code and Model Ordinance during both testing and operation – even during an electrical outage.

### **I. Motor Vehicles Considered as Contributors to a Facility's Sound Emissions**

Any vehicle "engaged" in the facility's commercial or industrial operations, which includes, but is not limited to, loading/unloading, backup beepers, onboard auxiliary power units, trailer refrigeration units, bulk off-loading apparatus, is subject to the provisions of the State Code and Model Ordinance when parked or in transit once the vehicle crosses onto the property line of the facility. This, however, would not pertain to "customer" traffic (e.g., shoppers at a mall or restaurant patrons) or to employee vehicles which are not considered to be "engaged" in the facility's commercial or industrial operations.

A vehicle is considered to be part of the facility's operations once all of its wheels are on the facility's property.

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<sup>14</sup> §7:29-1.5(a)14. (State Code). Exemptions. Emergency electrical generators at an Industrial, Commercial or Community Services Property is explicitly exempt from the provisions of the State Code during an electrical outage.

There is no special consideration given to a vehicle, or other sound source, operating on property which is the subject of an easement. An easement<sup>15</sup> grants permission for a person (facility) to use land which is owned by another party, as such, the facility operator is responsible for activities on the easement that results in the generation of noise as defined in the State Code. If it is unclear which party has direct responsibility for the action causing the noise you may consider citing both the facility operator and the property owner.

#### **J. Multi-use properties with a “real” property line (separate ownership)**

The State Code applies to sound as received at or within the property line of an *affected person*. The “real property line” is defined in the Model Ordinance as the vertical or horizontal plane dividing two parcels of land under fully separate ownership for multi-dwelling and multi-use properties. The State Code does not apply to intra-building matters in which both the sound source and the *affected person* are tenants. However, when both the sound source and the *affected person* occupy legally separate properties, the State Code can be applied. An example would be a condominium above a commercial source. The State Code does not regulate residential sources, such as matters between two residential condominium units, or two single-family houses. The Model Ordinance, however, does address both intra-building matters (with the exception of commercial-to-commercial when both are tenants) and residential properties as regulated source-property categories.

While the State Code regulates intra-building matters in some circumstances, for example a commercial unit on the first floor and residential unit above, the permissible sound level limits set forth at N.J.A.C. 7:29-1.2 apply regardless of whether the compliance measurements are conducted outside or inside. No reduction in the permissible limits in the State Code is to be inferred to apply to measurements when conducted indoors. The Model Ordinance does establish permissible sound level limits and measurement protocols for assessing compliance at indoor receptors.

#### **K. Enforcement of the State Code by local enforcement officers**

The NJDEP, in consultation with the Council have interpreted the definition of "Authorized enforcement agency" to authorize local enforcement agents to enforce the State Code, if they have received noise enforcement training, and are currently certified pursuant to N.J.A.C. 7:29-2.11.

#### **L. “C-scale” measurement procedures for sound production devices**

The Model Ordinance (starting with the June 2010 version) regulates sound production devices (Section VIII) with permissible sound levels limits set on the C-scale (dBC), which is more sensitive to low frequency sound than is the A-scale (dBA). C-scale measurements and the corresponding permissible limits only apply in local jurisdictions having properly adopted the 2010 version (or subsequent version) of the Model Ordinance, and only to sound production

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<sup>15</sup> An **easement** is the grant of a property interest that grants the **easement** holder permission to use another person's land. The **easement** is itself a real property interest, but legal title to the underlying land is retained by the original owner for all other purposes.

devices regardless of whether the sound source under investigation emits primarily low frequency sound (e.g., an idling diesel or industrial ventilation fan).

When conducting C-scale measurements care must be taken to exclude extraneous low frequency sounds (such as passing diesel trucks, intermittent HVAC or a tugboat in the distance) from the measurements. Low frequency sounds may not be particularly audible (i.e., difficult to hear), depending on the frequency, and it is possible for C-scale measurements to be influenced by low frequency sources – other than the source under investigation – which are not readily apparent while conducting the measurements. This effect is due, in large measure, to the fact that low frequency sounds pass more easily through building walls than do higher frequency sounds.

When conducting Total Sound Level measurements, the meter display should be carefully observed and correlated with the music as heard, in order to ensure the exclusion of extraneous sounds. The maximum sound levels reported must be from the source under investigation. If the level on the meter increases without an attendant increase in the audible intensity of the music, it must be assumed that the increase is due to an extraneous sound source, and disregarded as such.

When conducting Neighborhood Residual Sound Level measurements, the preferred method, as always, is in the source-off condition (i.e., in the same location at which the Total Sound Level measurements were conducted with the sound production device not in operation). If there is a transient and intermittent increase in the sound level during those measurements, that excursion in level should be excluded as an extraneous sound.

#### **M. Snow removal**

Snow removal is considered an emergency activity based on the definition of an emergency as found in the State Code (N.J.A.C. 7:29-1.1). Snow removal is done in response to a weather event that necessitates a rapid response to clear a road, driveway or parking lot and may include plowing, blowing, hauling and/or storing of snow. Depending on site specific conditions and the magnitude of the snow event, snow removal activities may need to occur over several days following a snowfall event.

#### **N. Public spaces**

*Public space* is defined in the Model Ordinance (June 2010 version or subsequent version) as “any real property or structures thereon that are owned, leased, or controlled by a governmental entity.” This would include parks, recreational facilities and historic properties which are owned, leased, or controlled by a governmental entity. In the Model Ordinance, at Section III (A) and (B), *public space* is included as a listed source property category, but is not included as a listed receiver property category. Therefore, a soccer field (other than the unamplified human voice), for example, can be a source of noise, but not a receiver of noise.

In the State Code, *public space* is not defined; nor is such facilities explicitly named in the description of any of the listed source or receiver property categories.

**O. “Source” property with a separate owner and operator (e.g., tenant, easements)**

When it has been determined that a violation exists for a “source” property that has a separate owner and operator, an enforcement officer may choose to cite both the property owner and facility operator. In these circumstances, it is often difficult to determine who the legally responsible party is. If both parties are cited then the determination of who is responsible can be made at a later time when more information is known.

In circumstances where an easement has been granted to a facility operator, hereto, the enforcement officer may choose to cite both the grantor (deeded property owner) and grantee of the easement.

**P. How the *Right to Farm Act* interacts with state noise regulation & local ordinances**

The Right to Farm Act (RTFA) [N.J.A.C. 2:76] was enacted to allow farmers to undertake traditional agricultural production free from overly burdensome interference from local government. Under the Act, responsible commercial farms that meet the eligibility criteria of the RTFA can receive significant protections from nuisance lawsuits and overly restrictive local ordinances.

**Is the State noise regulation, *Noise Control* [N.J.A.C. 7:29] subject to the RTFA?**

No. The State noise regulation, N.J.A.C. 7:29 – Noise Control (State Noise Regulation), is a state regulation and, as such, is not subject to the provisions of the RTFA. Furthermore, when local environmental health officers are engaged in noise investigations pursuant to the State Noise Regulation, they are acting under the authority of the County Environmental Health Act (CEHA) and are serving as ““officers” of the State.

**Even though the RTFA does not apply to the State Noise Regulation, *Noise Control* [N.J.A.C. 7:29], is there an exception in the regulation for farm related activities?**

Yes. Although, the State Noise Regulation [N.J.A.C. 7:29] is not preempted by the RTFA, the regulation does provide an exception for *Agricultural Activities*<sup>16</sup> and defines *Agricultural Activities*<sup>17</sup> as:

"Agricultural activities" means those activities performed on farmlands in order to cultivate the soil, produce crops, or raise livestock. In addition, activities associated with the growing, producing, processing, or selling of farm-related products, as long as those activities are conducted on farmlands, would be considered agricultural activities.

As such, noise related to traditional agricultural activities are exempt from the provisions of the State Noise Regulation [N.J.A.C. 7:29]. Conversely, those activities which are not included in

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<sup>16</sup> 7:29-1.5(a)1 Agricultural activities

<sup>17</sup> 7:29-1.1 Definitions

the definition of *Agricultural Activities* are subject to the provision of the State Noise Regulation. Activities which are not considered exempt under the State Noise Regulation definition of *Agricultural Activities* would include live or recorded music and other entertainment-based activities. For these types of farm-based activities, a noise investigation should be undertaken to determine compliance and violations should be handled as they would for non-agricultural activities.

**Are local noise ordinances such as municipal ordinances and the *Model Ordinance*<sup>18</sup> subject to the RTFA?**

Yes. The RTFA provides protections to *commercial farms* and *farm markets* (as defined in the RTFA) from overly burdensome ordinances adopted by local governments. In addition to satisfying the requirements of farm size and annual production, to be considered a commercial farm or farm market, the farm and the agricultural activity must also<sup>19</sup>:

- Conform to generally accepted agricultural management practices;
- Comply with all relevant Federal or State statutes and regulations; and,
- Not pose a direct threat to public health and safety.

In addition to protection for traditional agricultural activities (e.g., planting, sowing harvesting, processing products and raising livestock), the RTFA also provides protections for renewable energy generation and marketing of farm products, as described in adopted *Agricultural Management Practices* (AMPs). Of particular importance to the issue of community noise are activities considered to be *Ancillary Entertainment-based Activities* and *Agriculture-related Educational Activities* as defined in the *AMP for On-Farm Direct Marketing Facilities, Activities, and Events* [N.J.A.C. 2:76-2A.13].

"Agriculture-related educational activities" means on-farm educational offerings that have an agricultural focus and are related to marketing the agricultural or horticultural output of the commercial farm. Such activities are accessory to, and serve to increase, the direct-market sales of the agricultural output of a commercial farm by enhancing the experience of purchasing agricultural products for the purpose of attracting customers to the commercial farm. Examples of agriculture-related educational activities may include, but are not limited to: school trips, hands-on farming activities, educational displays, farm tours, farm task experiences, wine tastings, agriculture-related lectures for clubs, farm open house days, and agriculture-related classes on topics, such as, but not limited to: canning, freezing, cooking with fresh produce, pie making, pruning, beekeeping, animal care, and gardening.

"Ancillary entertainment-based activities" means non-agricultural offerings, commonly used as incidental components of on-farm direct marketing activities, that are accessory to, and serve to increase, the direct-market sales of the agricultural output of a commercial farm. Such activities are designed to attract customers to a commercial farm by enhancing the experience of purchasing agricultural products. Examples of ancillary

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<sup>18</sup> The *Model Ordinance* was developed by the NJDEP and the NJ Noise Control Council and is made available to local governments for adoption.

<sup>19</sup> RTFA – N.J.A.C. 4:1C-10

entertainment-based activities include, but are not limited to: background live or recorded music, face painting, story-telling, sandbox area, small swing set or playground equipment, pedal carts for children, and picnic tables. Such activities may have a fee associated with them, but such fees shall be *de minimis* compared to the income generated from the sale of the agricultural output of the commercial farm.

A listed example in the definition of *Ancillary Entertainment-based Activities* which has particular relevance to community noise is “background live or recorded music.” A number of farms, in more recent years, are using music as a marketing tool to attract patrons to their farms. The phrase “background live or recorded music” clearly sets a limit to the volume of music to be played at a farm event. Background music is commonly defined as:

- **Background music:** intended as an unobtrusive accompaniment to some activity, such as dining in a restaurant, or to provide atmosphere in a movie.<sup>20</sup>
- **Background music:** refers to various styles of music or soundscapes primarily intended to be passively listened to. It is not meant to be the main focus of an audience, but rather to supplement that which is meant to be focused upon. Music that is played at a low volume and is not the main focus of an audience is also referred to as background music.

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As such, concert-type events are inconsistent with the concept of background music. For complaints regarding farm-based activities pursuant to the *Model Ordinance* or other local noise ordinances, a noise investigation should be undertaken to determine compliance with the respective ordinance in the same manner as for non-agricultural activities. The results of the investigation should be forwarded to the *County Agricultural Development Board (CADB)* for their review and disposition (see detailed description of complaint process below).

### **What is the complaint process for agricultural-related noise issues pursuant to the Model Ordinance or other local noise ordinance?**

Under the RTFA, anyone aggrieved by the operation of a commercial farm is required to file a complaint with the CADB rather than filing an action in court. This means:

- Neighbors who have a nuisance complaint must file a complaint with the CADB rather than filing a lawsuit in court.
- Municipal officials who believe a farm is violating an ordinance must file a complaint with the CADB rather than issuing the farmer a zoning violation or summons.

CADBs, in other words, have primary jurisdiction to review and decide agriculture-related disputes. In the three counties without CADBs, complaints must go to the SADC, which retains primary jurisdiction.

After receiving a written complaint, the CADB begins by reviewing the Act’s threshold eligibility criteria: whether the farm is a commercial farm, whether the farm meets the Act’s

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[https://www.lexico.com/en/definition/background\\_music](https://www.lexico.com/en/definition/background_music)

<sup>21</sup> <https://findwords.info/term/background%20music>

locational eligibility provision, and whether the activity in question is included in the Act’s list of protectable activities. If these criteria are met, and if the activities are addressed by an adopted AMP or site-specific AMP, the CADB holds a public hearing and issues its findings in the form of a resolution. (If the activities are not addressed by an adopted AMP or site-specific AMP, the SADC holds an initial hearing, and then the CADB continues with the process.) The CADB’s decision can protect the farm’s activities that are the subject of the complaint, protect the activities in part, or deny Right to Farm protection, based on the specific details of the case. Anyone aggrieved by the CADB’s decision may appeal it to the SADC, and anyone aggrieved by the SADC’s decision may appeal it to the New Jersey Superior Court, Appellate Division.<sup>22</sup>

**Q. Obsolete Frequency Ranges**

There are some municipal ordinances that reference sound level performance standards in the “Old Band” format based on frequency ranges from American Standard Z24.10-1953. An example code section with these frequency ranges and limits is included below:

*Example Code Section with Obsolete Frequency Ranges*

No activity or use shall produce a sound-pressure level on adjacent property in excess of the level permitted in the following table:			
<b>Octave Band Frequency</b>			
<b>(cycles per second)</b>			
	<b>Less Than or</b>	<b>Residential District</b>	<b>Nonresidential District</b>
<b>Greater Than</b>	<b>Equal To</b>	<b>(decibels)</b>	<b>(decibels)</b>
20	75	72	79
75	150	67	74
150	300	59	66
300	600	52	59
600	1,200	46	53
1,200	2,400	40	47
2,400	4,800	34	41
4,800	—	32	39

These “Old Band” frequency ranges were rendered obsolete in 1960 with the adoption of American Standard S1.6-1960, in favor of the “Preferred Frequency Bands” which are used in N.J.A.C. 7:29 and the Model Noise Ordinance. Modern sound level meters are not capable of conducting measurements in the obsolete frequency ranges, and these limits are therefore not enforceable. Municipal ordinances with “Old Band” limits indicate the ordinance is antiquated

<sup>22</sup> Except from The Right to Farm Act in NJ, A Guide for Farmers, Neighbors, and Municipalities, June 2016. Link: [guidebook.pdf\(nj.gov\)](http://guidebook.pdf(nj.gov))

and must be replaced. Municipalities that wish to adopt an ordinance with decibel limits must adopt the Model Noise Ordinance which is available on the noise page of the NJDEP website.

Municipalities with zoning ordinances with provisions for noise may reference N.J.A.C. 7:29 *Noise Control*, the state noise regulation, or, if adopted, the municipality’s NJDEP-approved noise ordinance (i.e., Model Noise Ordinance submitted to and approved by NJDEP).

**Disclaimer**

THIS GUIDANCE DOCUMENT DOES NOT NECESSARILY INCLUDE ALL NJDEP POLICIES OR PROCEDURES RELATED TO NOISE INVESTIGATIONS AND ENFORCEMENT PROCEDURES.

**HISTORY/REVISIONS:**

January 19, 2015	Original document of compiled guidance published
February 4, 2022	Added: “How the <i>Right to Farm Act</i> interacts with state noise regulation & local ordinances” (Section P).
January 14, 2025	Added: Obsolete Frequency Ranges