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ENVIRONMENTAL PROTECTION

COMPLIANCE AND ENFORCEMENT

Noise Control

Proposed Readoption: N.J.A.C. 7:29

Proposed Amendments: N.J.A.C. 7:29-1.8 and 7:29-2.10

Authorized By: Bob Martin, Commissioner
Department of Environmental Protection

Authority: N.J.S.A. 13:1G-1 et seq.

Calendar Reference: See summary below for explanation of exception to calendar requirement.

DEP Docket No.: 12-10-11

Proposal Number: PRN 2005-

Submit written comments by February 18, 2011 to:

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Attn: DEP Docket No. 12-10-11
Office of Legal Affairs
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P.O. Box 402
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The Department of Environmental Protection (Department) requests that commenters submit comments on disk or CD as well as on paper. Submittal of a disk or CD is not a requirement. Submittals on disk or CD must not be access-restricted (locked or read-only) in order to facilitate use by the Department of the electronically submitted comments. The Department prefers Microsoft Word 6.0 or above. Macintosh™ formats should not be used. Each comment should be identified by the applicable N.J.A.C. citation with the commenter's name and affiliation following the comment.

This rule proposal can be viewed or downloaded from the Department's web page at www.state.nj.us/dep/rules.

The agency proposal follows:

Summary

As the Department has provided a 60-day comment period on this notice of proposal, this notice is excepted from the rulemaking calendar requirement under N.J.A.C. 1:30-3.3(a)5.

The Noise Control rules, N.J.A.C. 7:29, were scheduled to expire November 9, 2010. The filing of this proposal with the Office of Administrative Law on or before that date automatically extended the expiration date 180 days, until May 8, 2011, in accordance with the Administrative Procedure Act. (See N.J.S.A. 52:14B-5.1c.) The Department has reviewed these rules and has determined them to be necessary, reasonable and proper for the purpose for which they were originally promulgated. Therefore, the Department proposes to readopt this chapter with the amendments discussed below.

The Noise Control Act, N.J.S.A. 13:1G-1 et seq., was enacted in 1971. 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

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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 created a Noise Control 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. (See N.J.S.A. 13:1G-17.) Among other responsibilities, the Council is authorized to study the codes, rules and regulations promulgated by the Department with regard to noise control and to make recommendations to the Commissioner of the Department 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 Department. In addition, the Council has the authority to veto the adoption, amendment or repeal of any rule before the Commissioner promulgates it. (See N.J.S.A. 13:1G-18.)

In the early 1970s, the Department of Health, the Department, and the Council worked together to draft standards for the levels of sound emanating from stationary industrial and commercial operations. The Department promulgated these standards in 1974 at N.J.A.C. 7:29. The standards developed were health-based and were 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.

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County and municipal regulatory agencies typically monitor compliance with the Noise Control Act and conduct noise complaint investigations. These agencies include local health agencies certified by the Department pursuant to the County Environmental Health Act (CEHA), N.J.S.A. 26:3A2-21 et seq., to administer a noise control program, and municipal agencies that enforce noise control ordinances approved by the Department within their respective areas of jurisdiction. Local agencies are especially well suited to implement noise control programs since they are located in relatively close proximity to complainants and are able to quickly investigate noise complaints.

The readoption of N.J.A.C. 7:29 is necessary to ensure the continued implementation of the Noise Control Regulations by county and municipal regulatory agencies. The Department is proposing to readopt these rules with an amendment to the measurement calculations under N.J.A.C. 7:29-2.10.

Subchapter 1

Subchapter 1 establishes general provisions. N.J.A.C. 7:29-1.1 defines the words and terms used throughout Subchapter 1.

N.J.A.C. 7:29-1.2 establishes the standards for sound levels emanating from industrial, commercial, public service, or community service facilities. Specifically, this section prohibits continuous sound levels, when measured from a residential property line, from exceeding 65 dBA between 7:00 a.m. and 10:00 p.m. and from exceeding 50 dBA between 10:00 p.m. and 7:00 a.m. This section also prohibits impulsive sound in excess of 80 decibels.

N.J.A.C. 7:29-1.3 applies to railroad noise involving the coupling and idling of locomotives. The rule incorporates by reference Federal standards under 40 CFR Part 201,

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N.J.A.C. 7:29-1.4 provides requirements regarding the testing and operation of stationary emergency signaling devices.

N.J.A.C. 7:29-1.5 provides for exceptions of certain noise sources from the operational performance standards in N.J.A.C. 7:29-1.2.

N.J.A.C. 7:29-1.6 states the requirement that sound shall be measured in accordance with the test equipment methods and procedures outlined in N.J.A.C. 7:29-2.

N.J.A.C. 7:29-1.7 governs the initiation of enforcement actions and the imposition of civil penalties for violations of the Act, N.J.S.A. 13:1G-1 et seq., and these rules. The section provides grace periods to correct minor violations in accordance with the Grace Period Law, N.J.S.A. 13:1D-125 et seq.

N.J.A.C. 7:29-1.8 governs the adoption of county and municipal noise ordinances. The Department proposes to amend the rule to correct a cross reference. The existing rule references N.J.A.C. 7:29-1.6, Performance test principle, rather than 1.7, Enforcement.

Subchapter 2

Subchapter 2 establishes procedures for the determination of noise from stationary sources. N.J.A.C. 7:29-2.1 defines the words and terms used throughout Subchapter 2.

N.J.A.C. 7:29-2.2 requires testing to be conducted in accordance with the test methods specified in this subchapter. This section also provides that alternative methods, procedures or instruments may be used if approved by the Department.

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N.J.A.C. 7:29-2.3 requires that sound levels be determined by a qualified investigator, using Department-prescribed instruments and procedures.

In accordance with N.J.A.C. 7:29-2.4, sound from a source under investigation shall be measured when the source is operating at normal and routine conditions.

N.J.A.C. 7:29-2.5 sets forth in general where, how and under what conditions the noise determination tests shall be performed. This section also sets forth the calibration and certification requirements for the measuring devices.

N.J.A.C. 7:29-2.6 establishes the requirements for the equipment that is to be used during testing and measurements.

N.J.A.C. 7:29-2.7 specifies how the tests and measurements are to be reported. This section contains a detailed list of the information that must be included in the reports.

N.J.A.C. 7:29-2.8 explains the steps that must be taken prior to actual test measurements. It includes the requirements of a survey, observation of whether the sound is steady or transient, wind speed measurement and instrument selection.

N.J.A.C. 7:29-2.9 describes the step by step procedures used to calibrate the sound measuring equipment and to take measurements to determine conformance with the sound level limits set forth in Subchapter 1.

N.J.A.C. 7:29-2.10 directs how measured data is to be corrected to account for other sound sources that are not related to the facility being investigated and evaluated. This section provides a detailed procedure to be followed in making any such corrections. The Department proposes to amend N.J.A.C. 7:29-2.10 to update the calculation method. Language added in 2007 allowing the reporting of decimals in sound levels has been misinterpreted as requiring the reporting of fractions of decibels, leading to legal challenges when fractional decibels are not

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reported. The Department proposes to correct this misinterpretation by eliminating the unnecessary language. If an investigator's sound level meter makes reporting fractions of decibels feasible, then he or she may report fractions of decibels. Otherwise, whole numbers are sufficient. The proposed amendment deleting the language regarding decimals is intended to clarify the rule and eliminate challenges mistakenly based on a lack of decimals in the investigator's report. Although some investigators may report decimals, such is not required.

The existing rule at Step 4 directs the rounding down of all fractional decibel values in the corrected source sound level which is calculated through this procedure. When it adopted a rounding requirement in Step 1 and a rounding requirement in Step 4 (38 N.J.R. 2774(a), 39 N.J.R. 3372(a)), the Department indicated that it was attempting to avoid an artificial increase in the measurements of sound levels. (See Summary, 38 N.J.R. at 2777, and Response to Comment 12, 39 N.J.R. at 3374.) The Department has determined in the approximately three years since it adopted the amendments to Steps 1 and 4 that the rounding requirements can result in a sound that would otherwise exceed the permissible sound level limits to be designated as in compliance.

Materials provided in the certification course for noise enforcement (<http://www.envsci.rutgers.edu/org/rntac/courses/index.shtml>) recommend that investigators subtract the tolerance of the sound level meter from the corrected source sound level when determining whether there has been a violation of the Noise Code. Tolerance represents the maximum error for the sound level meter. The rules require that all sound level meters meet the standards set forth at N.J.A.C. 7:29-2.6(a). The standards establish tolerance limits (maximum error) for the meters: Type I Precision +/- 1 dB; and Type II General Purpose +/- 2 dB. By recommending that investigators subtract the tolerance from the corrected source sound level, the

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course materials recommend that investigators assume that the meter is reading “high.” In addition, the course materials recommend subtracting an additional decibel for possible parallax error (misreading an analog, aka needle and dial, reader). Thus, an investigator using a Type II meter subtracts a total of 3 dB from the corrected source sound levels (2 dB for tolerance, and 1 dB for possible parallax error).

The aggregation of these adjustments (the rounding and the subtraction of the tolerance of the sound level meter) can result in a significant downward adjustment in the calculated source sound level, which itself is based upon the minimum sound level reading of the source. For example, assume an investigator measures the highest Neighborhood Residual Sound Level range at 47.5 to 48.5 dBA, and the total Sound Level range is 55.1 to 55.6 dBA. Step 1 requires the investigator to subtract 48.5 from 55.1, for a difference of 6.6. (This investigator in this instance chose to report decimals.) That value is rounded down to 6, in accordance with Step 1, for reference to Column A of Table 1. Step 2 yields a correction factor of 1.2. Step 3 requires the investigator to subtract the correction factor from 55.1, resulting in 53.9 dBA. Existing Step 4 requires rounding down to 53 dBA. The meter tolerance and parallax error adjustment would subtract an additional 3 dB, resulting in a calculated measurement of 50 dBA. These measurements result in no violation, when prior to Step 4 rounding and subtraction in accordance with the recommendations for meter tolerance and parallax error the corrected source sound level was 53.9 dBA – a clear violation of the applicable standard in this instance, N.J.A.C. 7:29-1.2(a)2i, which was 50 dB. Under the rules as proposed to be amended, subtracting for tolerance and parallax results in a calculated measurement of 50.9 dB, a violation of the applicable standard. It is anticipated that the proposed amendment deleting Step 4 will eliminate these potential inaccuracies.

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N.J.A.C. 7:29-2.11 defines the qualifications that are required of individuals performing the test methods and procedures set forth in this subchapter.

N.J.A.C. 7:29-2.12 incorporates by reference testing criteria for equipment, including sound level meters. These testing criteria are found in ANSI: SI.11-1966, ANSI: SI.4-1971 and IEC Publication 65.

Social Impact

The rules proposed for readoption with amendments will allow the Department to continue, in full force and effect, the beneficial noise control programs administered by county and municipal agencies. The rules will have a positive social impact since noise continues to affect the health and well being of many New Jersey residents, who are affected by a variety of noise sources, including emerging types of noise such as wind turbines and off-road vehicles that may be mitigated by county and municipal noise control programs.

Economic Impact

The rules proposed for readoption with amendments will continue the existing noise control programs within the State and will have little to no economic impact on persons complying with the sound level standards. However, persons subject to this chapter who exceed the sound level standards may have to evaluate their facility or business to identify noise abatement strategies. The actual abatement measures could range from a simple noise barrier costing a few hundred dollars to a multi-phased abatement plan costing thousands of dollars. The range of costs depends on many factors, such as the number of individual sources of noise, the corresponding sound levels, the distance between the noise sources and receiving properties,

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and reflective and absorptive surfaces nearby. Citizens residing in municipalities with Department-approved noise ordinances could also be impacted if a source of noise on their property exceeds the daytime or nighttime limits established in N.J.A.C. 7:29. The cost for addressing these types of residential noise sources (for example, air conditioners and pool filters) is generally low. Reductions in health-related problems (such as depression, stress, loss of hearing, high blood pressure) due to noise abatement represent benefits of the rules proposed for readoption with amendments. Although those benefits are difficult to quantify, the Department believes that they outweigh the cost.

Environmental Impact

The rules proposed for readoption with amendments will continue to have a positive environmental impact. The rules establish sound level standards that serve to protect public health and preserve a high quality of life for New Jersey residents that would otherwise be impacted by excessive noise.

Federal Standards Statement

Executive Order No. 27(1994) and N.J.S.A. 52:14B-1 et seq. (P.L. 1995, c.65), require State agencies that adopt, readopt or amend State regulations that exceed any Federal standards or requirements to include in the rulemaking document a Federal standards analysis. The rules proposed for readoption with amendments do not impose any standards or requirements that exceed the standards or requirements imposed by any applicable Federal law. There are Federal sound level standards for certain sources of noise, such as train coupling and idling, which can be

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With this exception, the rules proposed for readoption with amendments have not been formulated in accordance with the authority of or in order to implement, comply with or participate in any program established under Federal law. Accordingly, a Federal standards analysis is not required.

Jobs Impact

The Department does not anticipate that the rules proposed for readoption with amendments will have an impact on job creation in the State.

Agriculture Industry Impact

The Department does not anticipate that the rules proposed for readoption with amendments will have an impact on agriculture in the State. Agricultural activities are exempt from the rules in accordance with N.J.A.C. 7:29-1.5.

Regulatory Flexibility Analysis

As required by the New Jersey Regulatory Flexibility Act, N.J.S.A. 52:14B-16 et seq., the Department has evaluated the reporting, recordkeeping and other compliance requirements that the rules proposed for readoption with amendments would impose on small businesses. The Regulatory Flexibility Act defines the term “small business” as “any business which is a resident in this State, independently owned and operated and not dominant in its field, and which employs fewer than 100 full-time employees.”

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Small as well as large businesses have the potential to create noise in violation of this chapter. Therefore, it is not appropriate to exempt small businesses from this chapter solely by virtue of their size, since the rules are designed to protect human health, welfare and the environment. However, when working with a facility to achieve compliance, the authorized enforcement agency has the discretion to offer grace periods and to establish differing timetables for compliance that take into account the resources available to small businesses. Thus, it is possible to minimize any adverse economic impact on small businesses in this fashion.

Smart Growth Impact

Executive Order No. 4 (2002) requires State agencies that adopt, amend or repeal State regulations to include in the rulemaking document a Smart Growth Impact statement that describes the impact of the rules proposed for readoption with amendments on the achievement of smart growth and implementation of the State Development and Redevelopment Plan (State Plan). The Department has evaluated this rulemaking to determine the nature and extent of the impact of the rules proposed for readoption with amendments on smart growth and the implementation of the State Plan. The rules may continue to affect land use policies, particularly when considering the potential impacts of noise from the siting of new commercial and industrial facilities near residential areas. Since the noise rules are protective of public health and the environment, the Department believes the rules are consistent with Smart Growth objectives.

Housing Affordability Impact

Pursuant to the Noise Control Act under N.J.S.A. 13:1G, the Department has evaluated the rules proposed for readoption with amendments to determine their impact, if any, on the

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affordability of housing. The Department believes there is an extreme unlikelihood that the rules proposed for readoption with amendments will evoke a change in the average costs associated with housing in the State. The rules regulate excessive noise from commercial, industrial, public service and community service facilities.

Smart Growth Development Impact

The Department has evaluated the rules proposed for readoption with amendments to determine their impact, if any, on smart growth development. The Department has determined that the rules would impose an insignificant impact because there is an extreme unlikelihood that the rules proposed for readoption with amendments will evoke a change in housing production within Planning areas 1 or 2, or within designated centers, under the State Development and Redevelopment Plan. The rules regulate excessive noise from commercial, industrial, public service and community service facilities, and do not encourage or discourage housing in a particular location. Rather, the rules attempt to moderate noise levels such that they do not interfere with the livability of any area.

Full text of the rules proposed for readoption may be found in the New Jersey Administrative Code at N.J.A.C. 7:29.

Full text of the proposed amendments follows (additions indicated in boldface **thus**; deletions indicated in brackets [thus]).

7:29-1.8 County and municipal ordinances to regulate noise

(a) (No change.)

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(b) Enforcement of a noise control ordinance is limited to the authorized enforcement agency as specified in the ordinance and enforcement actions shall be conducted in accordance with N.J.A.C. 7:29-1.[6]7, **Enforcement**.

7:29-2.10 Calculations

(a) Corrected source sound level: Correct the total sound level for the neighborhood residual sound in accordance with the procedure for using Table 1 to determine the sound level from the sound source of interest. If the difference between the total sound level and the neighborhood residual sound level is greater than 10 dB no correction is necessary.

TABLE 1

THE DETERMINATION OF SOURCE SOUND LEVEL FROM TOTAL AND
NEIGHBORHOOD
RESIDUAL SOUND MEASUREMENTS

(No change in table.)

Procedure for Using Table 1

Step 1: Subtract the maximum measured level of the neighborhood residual sound from the minimum measured level of the total sound[, including decimals, if displayed]. If the value obtained is a decimal number, round the value down to the nearest lower value in Column A.

Step 2: In Column A, find the difference determined under Step 1 and its corresponding correction factor in Column B.

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Step 3: Subtract the value obtained from Column B in Step 2 from the minimum measured total sound level (used in Step 1) to determine the sound level attributable to the sound source.

[Step 4: Round the value obtained down to the nearest whole number.]