

## Administrative Procedures – Proposed Coversheet

### Instructions:

In accordance with Title 3 Chapter 25 of the Vermont Statutes Annotated and the “Rule on Rulemaking” adopted by the Office of the Secretary of State, this proposed filing will be considered complete upon the submission and acceptance of the following components:

- Proposed Rule Coversheet
- Adopting Page
- Economic Impact Statement
- Public Input Statement
- Scientific Information Statement (if applicable)
- Incorporated by Reference Statement (if applicable)
- Clean text of the rule (Amended text without annotation)
- Annotated text (Clearly marking changes from previous rule)

All forms requiring a signature shall be original signatures of the appropriate adopting authority or authorized person, and all filings are to be submitted at the Office of the Secretary of State, no later than 3:30 pm on the last scheduled day of the work week.

The data provided in text areas of the proposed coversheet form will be used to generate a notice of rulemaking in the newspapers of record. Publication of notices will be charged back to the promulgating agency based on the word count of the notices.

**Certification Statement:** As the adopting Authority of this rule (see 3 V.S.A. § 801 (b) (11) for a definition), I approve the contents of this filing entitled:

**Rule Title: Rule on Sound Levels from Wind Generation Facilities**

\_\_\_\_\_ , on 3/2/2017  
 (signature) (date)

Printed Name and Title:

James Volz, Chair, Vermont Public Service Board

RECEIVED BY: \_\_\_\_\_

- Proposed Rule Coversheet
- Adopting Page
- Economic Impact Statement
- Public Input Statement
- Scientific Information Statement (if applicable)
- Incorporated by Reference Statement (if applicable)
- Clean text of the rule (Amended text without annotation)
- Annotated text (Clearly marking changes from previous rule)
- ICAR Approval received by E-mail.

1. TITLE OF RULE FILING:

Rule on Sound Levels from Wind Generation Facilities

2. ADOPTING AGENCY:

Public Service Board

3. PRIMARY CONTACT PERSON:

*(A PERSON WHO IS ABLE TO ANSWER QUESTIONS ABOUT THE CONTENT OF THE RULE).*

Name: Thomas Knauer

Agency: Public Service Board

Mailing Address: 112 State St., 4<sup>th</sup> Floor, Montpelier, VT  
05602

Telephone: 802 828 - 2358 Fax: -

E-Mail: thomas.knauer@vermont.gov

Web URL *(WHERE THE RULE WILL BE POSTED)*:

<http://psb.vermont.gov/about-us/statutes-and-rules/proposed-rule-sound-wind-generation-facilities>

4. SECONDARY CONTACT PERSON:

*(A SPECIFIC PERSON FROM WHOM COPIES OF FILINGS MAY BE REQUESTED OR WHO MAY ANSWER QUESTIONS ABOUT FORMS SUBMITTED FOR FILING IF DIFFERENT FROM THE PRIMARY CONTACT PERSON).*

Name: Kevin Fink

Agency: Public Service Board

Mailing Address: 112 State St., 4th Floor, Montpelier, VT  
05602

Telephone: 802 828 - 2358 Fax: -

E-Mail: kevin.fink@vermont.gov

5. RECORDS EXEMPTION INCLUDED WITHIN RULE:

*(DOES THE RULE CONTAIN ANY PROVISION DESIGNATING INFORMATION AS CONFIDENTIAL; LIMITING ITS PUBLIC RELEASE; OR OTHERWISE EXEMPTING IT FROM INSPECTION AND COPYING?)* No

IF YES, CITE THE STATUTORY AUTHORITY FOR THE EXEMPTION:

PLEASE SUMMARIZE THE REASON FOR THE EXEMPTION:

6. LEGAL AUTHORITY / ENABLING LEGISLATION:

*(THE SPECIFIC STATUTORY OR LEGAL CITATION FROM SESSION LAW INDICATING WHO THE ADOPTING ENTITY IS AND THUS WHO THE SIGNATORY SHOULD BE. THIS SHOULD BE A SPECIFIC CITATION NOT A CHAPTER CITATION).*

Section 12(a) of Act 174 of 2016; 30 V.S.A. § 248; 30 V.S.A. § 3

**7. CONCISE SUMMARY (150 WORDS OR LESS):**

The rule establishes a sound level limit at nearby non-participating residences that wind generation facilities must meet. In addition, the rule defines standards for how to model sound impacts during the permitting process and compliance methodologies to monitor and analyze sound levels from a wind generation facility after construction.

**8. EXPLANATION OF WHY THE RULE IS NECESSARY:**

Adoption of a rule regulating sound from wind generation facilities is required by Section 12(a) of Act 174 of 2016.

**9. LIST OF PEOPLE, ENTERPRISES AND GOVERNMENT ENTITIES AFFECTED BY THIS RULE:**

Vermont wind generation facility developers  
 Prospective neighbors of wind generation projects  
 Prospective host towns of wind generation projects  
 Vermont regional planning commissions  
 Vermont Department of Public Service  
 Vermont Department of Health  
 Vermont Agency of Natural Resources

**10. BRIEF SUMMARY OF ECONOMIC IMPACT (150 WORDS OR LESS):**

The rule will impose costs on developers seeking to develop a wind generation facility, who will be required to provide a model of the sound impacts of a proposed facility and will be required to pay for compliance testing following construction. In addition, the rule may have indirect impacts due to potential limitations on the number of sites where it may be possible to host a facility under the rule.

**11. A HEARING IS SCHEDULED .**

**12. HEARING INFORMATION**

(THE FIRST HEARING SHALL BE NO SOONER THAN 30 DAYS FOLLOWING THE POSTING OF NOTICES ONLINE).

IF THIS FORM IS INSUFFICIENT TO LIST THE INFORMATION FOR EACH HEARING PLEASE ATTACH A SEPARATE SHEET TO COMPLETE THE HEARING INFORMATION NEEDED FOR THE NOTICE OF RULEMAKING.

Date: 5/4/2017

Time: 09:30 AM

Street Address: 112 State Street Montpelier, VT

Zip Code: 05602

Date: 5/4/2017

Time: 07:00 PM

Street Address: 5 High School Drive Montpelier, VT

Zip Code: 05602

Date:

Time: AM

Street Address:

Zip Code:

Date:

Time: AM

Street Address:

Zip Code:

- 13. DEADLINE FOR COMMENT (NO EARLIER THAN 7 DAYS FOLLOWING LAST HEARING):

5/11/2017

- 14. KEYWORDS (PLEASE PROVIDE AT LEAST 3 KEYWORDS OR PHRASES TO AID IN THE SEARCHABILITY OF THE RULE NOTICE ONLINE).

Wind

Electric generation

Noise

Sound

# Administrative Procedures – Adopting Page

## Instructions:

This form must be completed for each filing made during the rulemaking process:

- Proposed Rule Filing
- Final Proposed Filing
- Adopted Rule Filing
- Emergency Rule Filing

Note: To satisfy the requirement for an annotated text, an agency must submit the entire rule in annotated form with proposed and final proposed filings. Filing an annotated paragraph or page of a larger rule is not sufficient. Annotation must clearly show the changes to the rule.

When possible the agency shall file the annotated text, using the appropriate page or pages from the Code of Vermont Rules as a basis for the annotated version. New rules need not be accompanied by an annotated text.

1. TITLE OF RULE FILING:

Rule on Sound Generation from Wind Facilities

2. ADOPTING AGENCY:

Public Service Board

3. AGENCY REFERENCE NUMBER, IF ANY:

5.700

4. TYPE OF FILING (*PLEASE CHOOSE THE TYPE OF FILING FROM THE DROPDOWN MENU BASED ON THE DEFINITIONS PROVIDED BELOW*):

- **AMENDMENT** - Any change to an already existing rule, even if it is a complete rewrite of the rule, it is considered an amendment as long as the rule is replaced with other text.
- **NEW RULE** - A rule that did not previously exist even under a different name.
- **REPEAL** - The removal of a rule in its entirety, without replacing it with other text.

This filing is **AN AMENDMENT OF AN EXISTING RULE**

5. LAST ADOPTED (*PLEASE PROVIDE THE SOS LOG#, TITLE AND LAST DATE OF ADOPTION FOR THE EXISTING RULE*):

16-E05; Temporary Rule on Sound Levels from Wind Generation Facilities; 7/28/16

# Administrative Procedures – Economic Impact Statement

## Instructions:

In completing the economic impact statement, an agency analyzes and evaluates the anticipated costs and benefits to be expected from adoption of the rule. This form must be completed for the following filings made during the rulemaking process:

- Proposed Rule Filing
- Final Proposed Filing
- Adopted Rule Filing
- Emergency Rule Filing

Rules affecting or regulating public education and public schools must include cost implications to local school districts and taxpayers in the impact statement (see 3 V.S.A. § 832b for details).

The economic impact statement also contains a section relating to the impact of the rule on greenhouse gases. Agencies are required to explain how the rule has been crafted to reduce the extent to which greenhouse gases are emitted (see 3 V.S.A. § 838(c)(4) for details).

All forms requiring a signature shall be original signatures of the appropriate adopting authority or authorized person.

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**Certification Statement:** As the adopting Authority of this rule (see 3 V.S.A. § 801 (b) (11) for a definition), I conclude that this rule is the most appropriate method of achieving the regulatory purpose. In support of this conclusion I have attached all findings required by 3 V.S.A. §§ 832a, 832b, and 838(c) for the filing of the rule entitled:

**Rule Title: Rule on Sound Levels from Wind Generation Facilities**

 , on 3/2/2017  
(signature) (date)

Printed Name and Title:

James Volz, Chair, Vermont Public Service Board

*BE AS SPECIFIC AS POSSIBLE IN THE COMPLETION OF THIS FORM, GIVING FULL INFORMATION ON YOUR ASSUMPTIONS, DATABASES, AND ATTEMPTS TO GATHER OTHER INFORMATION ON THE NATURE OF THE COSTS AND BENEFITS INVOLVED. COSTS AND BENEFITS CAN INCLUDE ANY TANGIBLE OR INTANGIBLE ENTITIES OR FORCES WHICH WILL MAKE AN IMPACT ON LIFE WITHOUT THIS RULE.*

1. TITLE OF RULE FILING:

Rule on Sound Levels from Wind Generation Facilities

2. ADOPTING AGENCY:

Public Service Board

3. CATEGORY OF AFFECTED PARTIES:

*LIST CATEGORIES OF PEOPLE, ENTERPRISES, AND GOVERNMENTAL ENTITIES POTENTIALLY AFFECTED BY THE ADOPTION OF THIS RULE AND THE ESTIMATED COSTS AND BENEFITS ANTICIPATED:*

Vermont wind generation facility developers

Prospective neighbors of wind generation projects

Prospective host towns of wind generation projects

Vermont regional planning commissions

Vermont Department of Public Service

Vermont Department of Health

Vermont Agency of Natural Resources

4. IMPACT ON SCHOOLS:

*INDICATE ANY IMPACT THAT THE RULE WILL HAVE ON PUBLIC EDUCATION, PUBLIC SCHOOLS, LOCAL SCHOOL DISTRICTS AND/OR TAXPAYERS:*

The rule is not expected to have any effect on schools.

5. COMPARISON:

*COMPARE THE ECONOMIC IMPACT OF THE RULE WITH THE ECONOMIC IMPACT OF OTHER ALTERNATIVES TO THE RULE, INCLUDING NO RULE ON THE SUBJECT OR A RULE HAVING SEPARATE REQUIREMENTS FOR SMALL BUSINESS:*

The Board's rule seeks to address the requirement for a sound-level standard in a manner that results in compliance costs that are comparably lower than other alternatives considered. Specifically, the Board's methodology provides a mechanism whereby wind turbine sound levels can be assessed without separate monitoring and analysis to subtract background sound

levels. It does this by requiring that monitoring occur under worst-case conditions where turbine sound levels will be at their loudest output, and background sound levels at their lowest. This methodology also allows for monitoring campaigns to be of significantly shorter duration by allowing a demonstration of compliance during specified worst-case conditions, rather than requiring long-term monitoring over more extended periods. Another alternative the Board considered was setbacks (see the response under Section 6 below).

**6. FLEXIBILITY STATEMENT:**

*COMPARE THE BURDEN IMPOSED ON SMALL BUSINESS BY COMPLIANCE WITH THE RULE TO THE BURDEN WHICH WOULD BE IMPOSED BY ALTERNATIVES CONSIDERED IN 3 V.S.A. § 832a:*

The principal alternative the Board has considered would be a setback requirement that wind generation facilities be installed no closer than a minimum distance from neighboring residences. Under such a requirement, compliance costs would be virtually non-existent. However, in light of the variability of both Vermont's terrain and turbine sound output, such a setback requirement will necessarily be more restrictive than a sound-level-based requirement. As a result, a setback may preclude use of sites that could, in practice, achieve the required sound levels. Thus, although it may reduce compliance and permitting costs for developers, a setback requirement may also reduce the number of eligible locations at which wind facilities could be sited.

However, in light of the reduced compliance costs of a setback-based requirement, the Board has included a setback as a possible compliance path for smaller facilities for which the costs of sound modelling and measurement could be prohibitive.

**7. GREENHOUSE GAS IMPACT: EXPLAIN HOW THE RULE WAS CRAFTED TO REDUCE THE EXTENT TO WHICH GREENHOUSE GASES ARE EMITTED, EITHER DIRECTLY OR INDIRECTLY, FROM THE FOLLOWING SECTORS OF ACTIVITIES:**



## a. TRANSPORTATION —

*IMPACTS BASED ON THE TRANSPORTATION OF PEOPLE OR PRODUCTS (e.g., “THE RULE HAS PROVISIONS FOR CONFERENCE CALLS INSTEAD OF TRAVEL TO MEETINGS” OR “LOCAL PRODUCTS ARE PREFERENTIALLY PURCHASED TO REDUCE SHIPPING DISTANCE.”):*

No expected impact.

## b. LAND USE AND DEVELOPMENT —

*IMPACTS BASED ON LAND USE AND DEVELOPMENT, FORESTRY, AGRICULTURE ETC. (e.g., “THE RULE WILL RESULT IN ENHANCED, HIGHER DENSITY DOWNTOWN DEVELOPMENT.” OR “THE RULE MAINTAINS OPEN SPACE, FORESTED LAND AND /OR AGRICULTURAL LAND.”):*

No expected impact.

## c. BUILDING INFRASTRUCTURE —

*IMPACTS BASED ON THE HEATING, COOLING AND ELECTRICITY CONSUMPTION NEEDS (e.g., “THE RULE PROMOTES WEATHERIZATION TO REDUCE BUILDING HEATING AND COOLING DEMANDS.” OR “THE PURCHASE AND USE OF EFFICIENT ENERGY STAR APPLIANCES IS REQUIRED TO REDUCE ELECTRICITY CONSUMPTION.”):*

No expected impact.

## d. WASTE GENERATION / REDUCTION —

*IMPACTS BASED ON THE GENERATION OF WASTE OR THE REDUCTION, REUSE, AND RECYCLING OPPORTUNITIES AVAILABLE (e.g., “THE RULE WILL RESULT IN REUSE OF PACKING MATERIALS.” OR “AS A RESULT OF THE RULE, FOOD AND OTHER ORGANIC WASTE WILL BE COMPOSTED OR DIVERTED TO A ‘METHANE TO ENERGY PROJECT’.”):*

No expected impact.

## e. OTHER —

*IMPACTS BASED ON OTHER CRITERIA NOT PREVIOUSLY LISTED:*

Compared with the sound-level requirements imposed by the Board in prior proceedings authorizing the development of wind generation facilities, the sound level standard proposed by the Board is more restrictive. As a result, the rule may result in fewer potential locations for the development of wind generation facilities, which may have indirect effects on greenhouse gas emissions.

# Administrative Procedures – Public Input Statement

## Instructions:

In completing the public input statement, an agency describes what it did do, or will do to maximize the involvement of the public in the development of the rule. This form must be completed for the following filings made during the rulemaking process:

- Proposed Rule Filing
- Final Proposed Filing
- Adopted Rule Filing
- Emergency Rule Filing

### 1. TITLE OF RULE FILING:

Rule on Sound Levels from Wind Generation Facilities

### 2. ADOPTING AGENCY:

Vermont Public Service Board

### 3. PLEASE LIST THE STEPS THAT HAVE BEEN OR WILL BE TAKEN TO MAXIMIZE PUBLIC INVOLVEMENT IN THE DEVELOPMENT OF THE PROPOSED RULE:

The Board has engaged in an extended proceeding to solicit public input in the development of the proposed rule. Since August, 2016, the Board has: (1) received two rounds of written comments; (2) conducted a day-and-a-half of workshops with interested stakeholders to discuss approaches to the rulemaking; and (3) distributed a discussion draft of a rule for public consideration, on which substantial public comments were received.

The Board intends to request written comments on the proposed rule, to host a workshop and public hearing, and to request additional written comments following the public hearing.

### 4. BEYOND GENERAL ADVERTISEMENTS, PLEASE LIST THE PEOPLE AND ORGANIZATIONS THAT HAVE BEEN OR WILL BE INVOLVED IN THE DEVELOPMENT OF THE PROPOSED RULE:

The following individuals or entities have participated in the development of the rule, through the submission of comments or participation in the workshops held by the Board:

Vermont Agency of Natural Resources  
Sally and Bruce Collopy  
Town of Windham  
Green Mountain Power Corporation  
Renewable Energy Vermont  
Resource Systems Group, Inc.  
VPIRG  
Vermonters for a Clean Environment  
Paul Brouha  
Vermont Department of Public Service  
Brian and Penny Dubie  
Dustin and Christine Lang  
Greg Pierce  
Shanna Ratner  
Stephanie J. Kaplan  
Steve and Kathy Halford  
Valerie Desmarais  
Elaine Geyer  
Kathleen Spear  
Elizabeth Paquette  
Rita Clark  
Adam Mitchell  
Dr. Terence Naumann  
  
Chris Paterson  
Louise Frazier  
Diana Bingham  
Ellen Strauss Sanford  
Susan Rikken  
Lawrence O'Neill

Jean Ohlson

Laura Bailey

Thomas Northrop

Ian Baldwin

Ian Stokes

Kim and Fried

Susan Rump

Lodiza Lepore

Melissa Wales

Erik Rehman

Brendan Taylor

Sylvie Desautels

Elizabeth Ezerman

Liza Morgioni

Timothy Allen

David Robitille

Leigh Steele

Donielle Workman

Robin Pierce

Kevin Bessett

R.J. Adler

Theodore Blodgett

Steve Cota

Matthew Sweet

Sonja Ennis

Alice Merrill

Bill Christian

Susan Gallagher-Borg

Terrence Dinnan and Martha Illick Dinnan/Illick

Robert Flynn

Barbara Wynroth

Nicholas Laskovski  
Arthur Barrows  
Brittany Porter  
Jack Hanson  
Helen Merena  
Benjamin Smith  
Joseph Przyperhart  
William Bingham  
Jesse Lovasco  
Deina Olstad  
Chrisman Kearn  
Alison Trowbridge  
Douglas McCorkle  
Brian Tremback  
Dr. Greg Hostetler  
William T Maclay  
Jeffrey Phillips  
Anthony Vargo  
Miranda Fisk  
Susan Hacker  
Dr. Lance Polya  
Linda Sukop  
Darcey Mercier  
Claire Adams  
Donna Fialkoff  
Jean Pollock and Robert Crego  
Roseann Grimes  
Jean Kiedaisch  
Nicholas Seifert  
Frederick Abraham  
Jill Crosbie

Michael Doran

Daniel Brown

Nancy Baron

Eric Hefel

Robert Ware

# Administrative Procedures – Scientific Information Statement

## Instructions:

In completing the Scientific Information Statement, an agency shall provide a brief summary of the scientific information including reference to any scientific studies upon which the proposed rule is based, for the purpose of validity.

This form is only required when a rule relies on scientific information for its validity.

### 1. TITLE OF RULE FILING:

Rule on Sound Levels from Wind Generation Facilities

### 2. ADOPTING AGENCY:

Public Service Board

### 3. BRIEF EXPLANATION OF SCIENTIFIC INFORMATION:

The scientific information consists of numerous studies examining the potential public health impacts of human exposure to sound from wind turbines.

### 4. CITATION OF SOURCE DOCUMENTATION OF SCIENTIFIC INFORMATION:

1. Potential Impact on the Public's Health from Sound Associated with Wind Turbine Facilities, Vermont Department of Health, October 15, 2010

[http://www.healthvermont.gov/sites/default/files/documents/2016/11/PHA\\_wind\\_turbine\\_sound\\_10\\_15\\_2010.pdf](http://www.healthvermont.gov/sites/default/files/documents/2016/11/PHA_wind_turbine_sound_10_15_2010.pdf)

2. Guidelines for Community Noise, World Health Organization, 1999

<http://apps.who.int/iris/handle/10665/66217>

3. Night Noise Guidelines for Europe, World Health Organization, 2009

[http://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0017/43316/E92845.pdf](http://www.euro.who.int/__data/assets/pdf_file/0017/43316/E92845.pdf)

4. Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety, United States Environmental Protection Agency, March 1974.

<https://nepis.epa.gov/Exe/ZyNET.exe/2000L3LN.TXT?ZyActionD=ZyDocument&Client=EPA&Index=Prior+to+1976&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A%5Czyfiles%5CIndex%20Data%5C70thru75%5CTxt%5C00000001%5C2000L3LN.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h%7C-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=hpfr&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1&SeekPage=x&ZyPURL>

5. Wind Turbine Noise and Health Study: Summary of Results, Health Canada

<http://www.hc-sc.gc.ca/ewh-semt/noise-bruit/turbine-eoliennes/summary-resume-eng.php>

6. Wind Turbine Health Impact Study: Report of Independent Expert Panel" prepared for Massachusetts Department of Environmental Protection and Department of Public Health, January 2012.

<http://www.mass.gov/eea/docs/dep/energy/wind/turbine-impact-study.pdf>

7. Understanding the Evidence: Wind Turbine Noise, The Expert Panel on Wind Turbine Noise and Human Health, Council of Canadian Academies, 2015.



<http://www.scienceadvice.ca/uploads/eng/assessments%20and%20publications%20and%20news%20releases/wind-turbine-noise/WindTurbineNoiseFullReportEn.pdf>

5. INSTRUCTIONS ON HOW TO OBTAIN COPIES OF THE SOURCE DOCUMENTS OF THE SCIENTIFIC INFORMATION FROM THE AGENCY OR OTHER PUBLISHING ENTITY:

For each source document listed above, the Board has provided a URL where the document may be obtained.

# Administrative Procedures – Incorporation by Reference Statement

## Instructions:

In completing the incorporation by reference statement, an agency describes any materials that are incorporated into the rule by reference and why the full text was not reproduced within the rule.

This form is only required when a rule incorporates materials by referencing another source without reproducing the text within the rule itself (e.g. federal or national standards, or regulations).

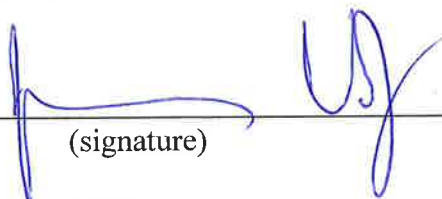
Copies of incorporated materials will be held by the Office of the Secretary of State until adoption or formal withdrawal of the rule is complete. Materials will be returned to the agency upon completion of the rule.

All forms requiring a signature shall be original signatures of the appropriate adopting authority or authorized person.

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**Certification Statement:** As the adopting Authority of this rule (see 3 V.S.A. § 801 (b) (11) for a definition), I certify that the text of the matter incorporated has been reviewed by an official of the agency. I further certify that the agency has the capacity and intent to enforce the rule entitled:

**Rule Title: Rule on Sound Levels from Wind Generation Facilities**

 , on 3/2/2017 .  
(signature) (date)

Printed Name and Title:

James Volz, Chair, Vermont Public Service Board

## 1. TITLE OF RULE FILING:

Rule on Sound Levels from Wind Generation Facilities

## 2. ADOPTING AGENCY:

Public Service Board

3. DESCRIPTION (*DESCRIBE THE MATERIALS INCORPORATED BY REFERENCE*):

The rule incorporates several technical standards that relate to the appropriate methodology for measuring sound and callibrating and manufacturing sound equipment.

4. OBTAINING COPIES: (*EXPLAIN HOW THE MATERIAL(S) CAN BE OBTAINED BY THE PUBLIC, AND AT WHAT COST*):

The standards are available for purchase from the applicable standards authority. In addition, the Board will retain a copy available for public inspection at its offices at 112 State St., 4<sup>th</sup> Floor, Montpelier, VT 05602.

5. MODIFICATIONS (*PLEASE EXPLAIN ANY MODIFICATION TO THE INCORPORATED MATERIALS E.G., WHETHER ONLY PART OF THE MATERIAL IS ADOPTED AND IF SO, WHICH PART(S) ARE MODIFIED*):

There are no modifications to the incorporated materials.

6. REASONS FOR INCORPORATION BY REFERENCE (*EXPLAIN WHY THE AGENCY DECIDED TO INCORPORATE THE MATERIALS RATHER THAN REPRODUCE THE MATERIAL IN FULL WITHIN THE TEXT OF THE RULE*):

The incorporated standards are, in general, technical protocols for conducting sound measurements or constructing and callibrating sound measurement equipment. In addition, many of the protocols are lengthy documents for which direct reproduction in the rule would result in a rule consisting mostly of measurement and callibration protocols, obscuring the underlying requirements of the rule. The Board has attached a memorandum that provides a brief description of each of the standards incorporated in the rule.

## 7. THE INCORPORATED MATERIALS HAVE BEEN REVIEWED BY THE FOLLOWING OFFICIAL OF THE AGENCY:

Kevin Fink; Thomas Knauer

## 8. THE ADOPTING AGENCY REQUESTS THAT ALL COPIES OF INCORPORATED MATERIALS BE RETURNED TO THE AGENCY .

Run Spell Check

112 State Street  
4<sup>th</sup> Floor  
Montpelier, VT 05620-2701  
TEL: 802-828-2358



TTY/TDD (VT: 800-253-0191)  
FAX: 802-828-3351  
E-mail: [psb.clerk@vermont.gov](mailto:psb.clerk@vermont.gov)  
Internet: <http://psb.vermont.gov>

**State of Vermont  
Public Service Board  
MEMORANDUM**

To: Members of the Interagency Committee on Administrative Rules  
From: Kevin Fink<sup>KF</sup>, Policy Analyst, Vermont Public Service Board  
Date: March 1, 2017  
Subject: Proposed Rule Entitled "Rule on Sound Levels from Wind Generation Facilities"

Due to the lengthy content and technical nature of a number of the standards incorporated by reference in the Public Service Board ("Board") proposed rule entitled "Rule on Sound Levels from Wind Generation Facilities," the Board has not included copies of each of the incorporated standards for each member of the committee. In lieu of such inclusion, a description of the standards proposed to be incorporated is provided below. In addition, the Board is happy to provide a copy of text of the standards if needed.

**ISO 9613-2:1996:** ISO 9613-2 provides a methodology for modeling the attenuation of sound from a source in order to predict sound levels at various distances from that source.

**ANSI S1.13, Annex A:** This standard provides a measurement protocol used to identify whether a sound results in prominent discrete-frequency tones.

**IEC 61400-11:** This standard prescribes measurement procedures that standardize the process for measuring the sound power level of a wind turbine at the source.

**American National Standard Specifications for Sound Level Meters, ANSI S1.4:** This standard sets requirements for the accuracy of sound level meters used in sound monitoring.

**IEC 61672-1:** This standard establishes performance specifications for sound level meters.

**American National Standard Specification for Octave-Band and Fractional Octave-Band Analog and Digital Filters, ANSI S1.11:** This standard establishes requirements for measuring the tonal quality of sound using filters within specified frequencies.

**IEC 61260:** This standard prescribes requirements for the periodic testing of octave-band and fractional-octave-band filters used to measure the tonal quality of sound.

**American National Standard Specification for Acoustical Calibrators, ANSI S1.40:** This standard prescribes performance requirements for acoustical calibrators used to confirm the accuracy of acoustical measurement instruments.