

STATE OF NEW HAMPSHIRE
SITE EVALUATION COMMITTEE
INVESTIGATORY SUBCOMMITTEE

Docket No. 2021-02

INVESTIGATION OF COMPLAINTS
REGARDING ANTRIM WIND ENERGY FACILITY

**SUBCOMMITTEE’S RECOMMENDATION TO THE SITE EVALUATION
COMMITTEE CONCERNING CHARGE 3**

The Investigatory Subcommittee (the “Subcommittee”) makes the following recommendation to the full Site Evaluation Committee (the “Committee”), as required by Charge 3 of the April 2, 2021 Order Appointing the Subcommittee:

I. The Subcommittee’s Charge and Work thus Far

1. On April 2, 2021, Chairwoman Martin issued an order constituting this Subcommittee and charging it with three tasks:
 - Charge 1: Review the law, administrative rules, the Facility’s Certificate, and all other relevant filings related to noise limits and sound measurement methodology. Forward a written recommendation regarding the appropriate methodologies for measurement and analysis of sound, and procedure for validating noise complaints to the full Committee by April 23, 2021.
 - Charge 2: Review and investigate complaints filed through December 31, 2021, regarding Facility operations to ensure the terms and conditions of the Certificate are being met.
 - Charge 3: Make recommendations to the full Committee regarding the disposition of such complaints.
2. After all members were named, the Subcommittee held its first public meeting on April 20, 2021 and adopted an Investigative Plan.
3. On May 20, 2021 Chairwoman Martin issued an Order Regarding Subcommittee Charge, granting the Subcommittee additional time to complete Charge 1 and instructing the

Subcommittee that its charge “is focused on the current requirements pursuant to New Hampshire law, the administrative rules of the Subcommittee, and the existing requirements of the Certificate and Decision related to this facility.”

4. The Subcommittee revised its Investigative Plan and adopted it at a May 21, 2021 public meeting. At that meeting, it also discussed a May 6, 2021 Complaint filed by Rep. Vose regarding the Certificate Holder, Antrim Wind Energy, LLC’s (“Antrim Wind”) aircraft detection lighting system (“ADLS”). The Subcommittee decided to recommend to the full Committee that it (1) find no violation of Antrim Wind’s Certificate with regard to the Vose complaint, and (2) undertake no enforcement action on the complaint. That recommendation was forwarded to Chairwoman Martin on May 24, 2021. The full Committee later adopted the Subcommittee’s recommendation concerning the Vose complaint.¹

5. Pursuant to its Investigative Plan, the Subcommittee held a public meeting on June 17, 2021, to solicit comments from the public concerning Charge 1. It also invited written submissions, which were received from a variety of parties.

II. The Subcommittee’s Recommendation Concerning Charge 1.

6. On August 23, 2021, the Subcommittee transmitted its recommendation concerning Charge 1 to the Site Evaluation Committee.

7. Specifically, the Subcommittee recommended that the Committee adopt the following interpretations of the noise limits in Site 301.14(f)(2):

¹ There were public comments at the May 15, 2023 Subcommittee meeting concerning recent performance of the ADLS. The Subcommittee did not address those concerns because its charge was temporally limited to complaints about the facility’s operation only through December 31, 2021.

- The Noise Limit in Site 301.14(f)(2)(a) limits Antrim Wind’s sound emissions to the greater of (i) 40 dBA at night/45 dBA during the day, or (ii) 5 dBA above background levels (measured using the L90 statistic). Thus, Antrim Wind’s sound emissions may go above 40 dBA night/45 dBA day if the background sound levels are sufficiently loud (i.e., greater than 35 dBA at night, or 40 dBA during the day).
- Measurements of Antrim Wind’s sound emissions and background sound shall be conducted according to the ANSI Standard.
- Antrim Wind’s sound emissions shall be measured using LAeq over the time period required by the relevant ANSI Standard. That is at least five minutes for accelerated measurements and a longer period if ANSI’s basic procedure is utilized, as reasonably determined by the professional conducting the study

8. The Subcommittee also recommended the following procedures for validating

complaints:

- Upon receipt of a complaint, the matter will be delegated to the Subcommittee.
- The Subcommittee will decide whether a field survey by the third-party retained sound expert is required.
- The purpose of the discretion afforded to the Committee was to limit overburdening the Certificate Holder with repeated field surveys. Thus, multiple surveys may not be required for repetitive or duplicative complaints.
- If a field survey is performed, the Subcommittee will publish the field survey and accept comments on the survey and conduct any additional investigation it deems appropriate. If a field survey is not required, the Subcommittee will conduct further investigation as it deems appropriate and make an appropriate recommendation to the Committee on disposition of the complaint.
- If the Subcommittee accepts the findings of any field survey, it shall recommend to the full Committee denial of a complaint if the field survey does not validate the complaint. If the field survey does validate the complaint, the Subcommittee will recommend the Committee find a violation and take the appropriate enforcement actions.

9. On March 9, 2022, the Site Evaluation Committee adopted the Subcommittee’s

recommendations, with the proviso that if the Subcommittee agreed that its anticipated field

survey was consistent with the scope of the field sound surveys contemplated in the current rules, it would be appropriate for the Subcommittee to follow the recommended procedure.

The Complaints and Field Sound Survey

10. After a review of the various dockets related to the Antrim Wind facility, the Subcommittee recognized the following complaints:²

- Jan. 7, 2020 – Barbara Berwick [Complaint](#) (related correspondence linked: [here](#), and [here](#))
- Jan 27, 2020 – Janice Longgood [Complaint](#) (related correspondence linked [here](#), [here](#), and [here](#)) (Complaint includes dates 1/28, 1/29, 2/2, 2/5, 2/8, 2/10)
- Feb. 13, 2020 – Barbara Berwick [Complaint](#) (includes dates of Jan. 1, 2/12, 2/13, 2/16, 2/18, 2/19, 2/22)
- Feb. 27, 2020 – Barbara Berwick [Complaint](#)
- March 20, 2020 – Barbara Berwick [Complaint](#)
- March 20, 2020 – Amanda Bucu [Complaint](#)
- May 20, 2020 – Barbara Berwick [Complaint](#)
- May 21, 2020 – Amanda Bucu [Complaint](#) (sound recording linked [here](#))
- May 25 and 26, 2020 – Barbara Berwick [Complaint](#)
- June 4, 5 2020 – Erin Morrison [Complaint](#) (related correspondence linked [here](#), [here](#), and [here](#))
- June 18, 20 2020 – Amanda Bucu [Complaint](#) (related correspondence linked [here](#) and [here](#))

² The electronic version of this documents contains embedded hyperlinks to Docket No. 2015-02 where the actual complaints and related documents have been posted. All of the referenced documents are available at the following address:

https://www.nhsec.nh.gov/projects/2015-02/2015-02_post_certificate_filings.html.

- July 20, 2020 – Erin Morrison [Complaint](#) (includes dates of June 5, 6, 11, 17, 18, 19, 22, 23, 27, 30, July 7, 10, 11, 17) (sound clip linked [here](#) and related correspondence [here](#))
- July 27, 2020 – Erin Morrison [Complaint](#)
- Sept. 4, 9-10, 2020 - Erin Morison [Complaint](#)
- March 19, 2021 Mandie Dube [Complaint](#)

11. In accordance with the procedure recommended by Subcommittee and subsequently adopted by the Committee, the Subcommittee hired an independent sound expert, Harris Miller Miller & Harrison, Inc. (“HMMH”) to conduct a field sound survey to validate the noise complaints received through calendar year 2021.

12. HMMH’s report is attached to this Recommendation.

13. As summarized in its report, HMMH conducted monitoring at five different locations over multiple different time periods, June 9-10, June 16-17, and June 30-July 1, 2022.

14. The Subcommittee did not inform the facility of the monitoring to ensure integrity of the field sound survey.

15. After appropriate processing and filtering of data in accordance with ANSI standards, HMMH found that “no LAeq values measured during any of the full one-hour monitoring periods or the 5-minute monitoring periods equal or exceed the 40 dBA LAeq nighttime limit or the 45 dBA LAeq daytime limit. Therefore, the monitoring showed consistent compliance with this absolute noise level standard.”

Public Comments Concerning the HMMH Study

16. Following publication of the HMMH study, the Subcommittee received comments concerning the study. It also held a public meeting on May 15, 2023 to receive

additional evidence concerning the Subcommittee's final charge, i.e.. to recommend disposition of the complaints received through 2021.

17. Several commentors took issue with the HMMH study. One complaint was that HMMH did not conduct the field sound survey study at the location of the Complainants' residence. The Subcommittee did not consider this a persuasive challenge to the HMMH study.

18. The Subcommittee attempted to negotiate access to each Complainant's residence. However, only two of the Complainants responded to Chairman Evans' emails and certified letter requesting access. Those two Complainants, Barbara Berwick and Janice Longgood declined to provide access to their properties without an advance meeting between HMMH, the complainants, third parties who have expressed opposition to the Antrim Wind facility, and a sound consultant.

19. To ensure neutrality, the Subcommittee declined to jointly formulate HMMH's methodology with the Complainants and others, without the presence or input of the facility or other members of the public. Instead, methodology was left to HMMH to determine in accordance with its expertise, the relevant rules, and ANSI standards. Ms. Berwick and Ms. Longgood declined Chairman Evans' offer to meet with them and HMMH, without third parties present, to discuss logistics for HMMH's study.

20. Without access to the Complainants' residence, HMMH selected sites on public land as close as practical to the residences.

21. HMMH's Senior Vice President, Christopher Menges, testified at the May 15, 2023 public meeting about the possible effects of measuring sound from the selected sites as compared to the Complainants' residence. He testified the sites were close to the residences and that he did not believe the differences in distance would meaningfully impact the measured

sound pressure levels. He further testified that the Antrim Wind facility is a “line source” of sound and that generally sound levels from line sources do not decrease with distance as rapidly as other types of sound sources.

22. In addition, the Subcommittee reviewed the September 2, 2020 report from sound experts Cavanaugh Tocci, which is available at the Docket No. 2015-02 Post-Certificate Filings here: https://www.nhsec.nh.gov/projects/2015-02/post-certificate-filings/2015-02_2020-09-02_rev_ltr_town_antrim.pdf

23. Cavanaugh Tocci was retained by the former SEC Administrator to assess some of the 2020 complaints from Amanda Buco at 80 Reed Carr Rd in Antrim and Erin Morrison at 88 Reed Carr Rd.

24. Following a field sound survey at the two addresses on Reed Car Rd., Cavanaugh Tocci concluded that “it is highly likely that [Antrim Wind] turbine sound with all turbines operating at the condition when complaints occurred produced sound levels at 80 and 88 Reed Carr Road at or below 40 dBA, thus complying.”

25. Cavanaugh Tocci’s conclusions at two of the Complainants residences support Mr. Menge’s testimony that HMMH’s results are consistent with surveys conducted at the Complainants’ residences.

26. Other commenters testified that HMMH study was flawed because it did not measure the background noise when the turbines were not operating. These comments were not persuasive for several reasons.

27. First, the sound level limits articulated in Site 301.14(f)(2) and incorporated into the facility’s certificate set limits at the *greater* of (1) 40 dBA between 8:00 pm and 8:00 am, 45

dBA otherwise, and (2) 5 dBA above background. Thus, HMMH’s study measured compliance using the strictest possible dBA limits.

28. Furthermore, the Cavanaugh Tocci reported background noise levels of 46 dBA at Reed Carr Rd. when the wind turbines were shut off. The HMMH study showed sound pressure levels well below the resulting 51 dBA limit calculated from that background measurement.

Subcommittee’s Recommended Disposition

29. The Subcommittee voted unanimously at its May 15, 2023 Public Meeting to accept the findings of the HMMH study.

30. The procedure adopted by the full Site Evaluation Committee at its March 9, 2022 meeting provided that “[i]f the Subcommittee accepts the findings of any field survey, it shall recommend to the full Committee denial of a complaint if the field survey does not validate the complaint.”

31. Therefore, because the Subcommittee accepted the HMMH study, which shows no violations of the facility’s noise limits, it recommends to the full Committee that it **DENY** all noise complaints filed through 2021 and undertake no enforcement action on any of them.

32. The Subcommittee requests that the full Committee issue an order discharging and dissolving the Subcommittee if its accepts the Subcommittee’s recommendation.

Subcommittee’s Recommendations Concerning Improved Complaint Processing

33. The Subcommittee heard extensive testimony from the public that it was unhappy with the process for evaluating complaints against certificated entities. The Subcommittee shares some of those concerns and recommends that the full Committee consider rulemaking or other steps to improve the complaint process.

34. First, the Subcommittee recommends a uniform complaint form that must be submitted to begin any investigation. Because many of the complaints in this matter were supported by nothing other than subjective complaints the Subcommittee suggest the Complaint form encourage complainants to submit objective evidence to substantiate the complaint if any exist. The Subcommittee also believes the Complaint form shall advise Complainants their Complaint may be dismissed or rejected if the Complainant does not provide access to their property for complaint validation purposes.

35. Second, the Subcommittee recommends that Committee adopt rules or requirements that certificates issued in the future include detailed requirements for complaint validation field sound survey methodology. The Subcommittee believes that many of the comments and frustrations from the public would be addressed or at least ameliorated if the Antrim Wind facility certificate had detailed (1) the time interval in which to measure LAeq for compliance purposes, (2) accepted backup locations for sound measurement and distance from sound source, and (3) length and type (unattended vs. attended) of sound study required for complaint validation.

FOR THE INVESTIGATIVE SUBCOMMITTEE IN DOCKET 2021-02



Jonathan Evans, Presiding Officer