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Anik Whittom

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May 1, 2020

By email: Pamela.Monroe@sec.nh.gov

New Hampshire Site Evaluation Committee (NHSEC)

Attention: Pamela G. Monroe, Administrator

21 S. Fruit Street, Suite 10

Concord, NH 03301-2429

Re: Antrim Wind Energy – Letter from the Aircraft Detection Lighting System manufacturer/provider

Dear Ms. Pamela G. Monroe,

Please find attached a letter from the manufacturer and provider of the Aircraft Detection Lighting System (ADLS) at the Antrim Wind Energy facility (AWE). We believe this letter should bring some comfort to NHSEC as it confirms that the ADLS is in compliance with FAA requirements.

We wish to reiterate that TransAlta is committed to the safe operation of all its facilities including AWE.

Regards,

TRANSALTA CORPORATION

Anik Whittom

Manager, Wind & Solar Operations

1 May 2020

TERMA[®]

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Attn: Ms. Anik Whittom, Manager, Wind & Solar Operations.
Your ref TransAlta PO 4500429655 for Antrim Wind Farm, NH
Our ref 40693 (ADLS for Antrim Wind Farm)

Dear Ms. Whittom,

I'm writing on the behalf of Terma North America, a subsidiary of Terma A/S and the manufacturer and provider of the Aircraft Detection Lighting System (ADLS) at the Antrim Wind Energy facility (AWE). First, I want to reiterate that Terma North America remains committed to ensuring continuous optimal performance of the ADLS system at the AWE.

To that end it is important to understand that AWE's ADLS systems, comprising of two radars are performing correctly and as designed in accordance with the aircraft detection lighting system (ADLS) requirements specified in Federal Aviation Administration (FAA) Advisory Circular (AC) 70/7460-1L, "Obstruction Marking and Lighting," Chapter 14 – Aircraft Lighting Detection Systems; in that the lights are turned on when appropriate. The Terma ADLS Radar system is also a type that is approved by the Federal Communication Commission (FCC).

Furthermore, we want to emphasize that the primary function of the Terma ADLS is to ensure the safety of any aircraft prior to the aircraft penetrating the perimeter of the volume around the Wind Farm. Per FAA requirements, this Detection Zone is a minimum of 3 NM (5.5 km) away from the obstruction or the perimeter of a group of obstructions, as well as a vertical detection which extends from the ground up to 1000 ft (304 m) above the highest part of the obstruction or group of obstructions, for all areas within the 3-NM (5.5-km) perimeter defined above. Any moving object detected within the Detection Zone that satisfies specific thresholds (such as radar cross-section, velocity, etc.) will trigger the illumination of the aerial obstruction lights.



Additionally, per FAA requirements, should the detected object tracking be lost or uncertain before exiting the Detection Zone, the ADLS will initiate a 30-minute timer and keep the obstruction lights on until the timer expires. As such the aerial obstruction lighting may preemptively be turned on at times, as the system is designed to only allow the obstruction lighting to be turned off when there is absolute certainty of no movement within the FAA determined Detection Zone.

In the event of an ADLS is unable to confirm that the sky is clear, the ADLS must automatically turn on all the obstruction lighting and operate in accordance with AC 70/7460-1L as if it was not controlled by an ADLS. The obstruction lighting must remain in this state until the ADLS is able to confirm again that the sky is clear within the FAA determined Detection Zone.

In closing, assuring the best possible performance of the ADLS system installed at the Antrim Wind Farm, has the highest priority of Terma North America, as well as our Danish parent company Terma A/S.

Yours sincerely,

Frank Christophersen

Frank Christophersen

Director, SMS

Terma North America Inc.

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