



Mail Processing Center  
 Federal Aviation Administration  
 Southwest Regional Office  
 Obstruction Evaluation Group  
 10101 Hillwood Parkway  
 Fort Worth, TX 76177

Aeronautical Study No.  
 2019-WTE-5540-OE  
 Prior Study No.  
 2016-WTE-6207-OE

*Received via  
 e-mail ~~was~~ by the  
 Administrator on 10/17/19.  
 PGM*

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**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure: Lighting Study for Met Tower R1 Antrim MET Tower  
 Location: Antrim, NH  
 Latitude: 43-03-39.63N NAD 83  
 Longitude: 72-00-43.18W  
 Heights: 1721 feet site elevation (SE)  
 329 feet above ground level (AGL)  
 2050 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, a med-dual system - Chapters 4,8(M-Dual),&12.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved provided that the equipment meets established technical standards.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (816) 329-2526, or [bill.kieffer@faa.gov](mailto:bill.kieffer@faa.gov). On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2019-WTE-5540-OE.

**Signature Control No: 407374820-414506169**

( MAL -WT )

Bill Kieffer  
Specialist

Attachment(s)  
Additional Information  
Map(s)

cc: FCC

## **Additional information for ASN 2019-WTE-5540-OE**

### **Note:**

As a condition to this Determination, the structure should be obstruction marked as noted below.

### **High-Visibility Sleeves.**

It is recommended that several high-visibility sleeves be installed on the MET's outer guy wires. One high-visibility sleeve should be installed on each guy wire, as close to the anchor point as possible, but at a height well above the crop or vegetation canopy. A second sleeve should be installed on the same outer guy wires midway between the location of the lower sleeve and the upper attachment point of the guy wire to the MET. The use of sleeves should not impact the placement of spherical marker balls.

### **Spherical Markers.**

It is also recommended that high-visibility aviation orange spherical marker (or cable) balls be attached to the guy wires. The FAA recommends a total of 8 high visibility spherical marker (or cable balls) of aviation orange color attached to the guy wires; 4 marker balls should be attached to guy wires at the top of the tower no further than 15 feet from the top wire connection to the tower, and 4 marker balls at or below the mid point of the structure on the outer guy wires.

The FAA recognizes that various weather conditions and manufacturing placement standards may affect the placement and use of high-visibility sleeves and/or spherical markers. Thus, some flexibility is allowed when determining sleeve length and marker placement on METs.

Sectional Map for ASN 2019-WTE-5540-OE

