Aeronautical Study No. 2014-WTE-6694-OE



Mail Processing Center Federal Aviation Administration Southwest Regional Office Obstruction Evaluation Group 2601 Meacham Boulevard Fort Worth, TX 76193

Issued Date: 02/03/2015

Brian Dunneback Paulding III 129 E. Market St Suite 1200 Indianapolis, IN 46204

## \*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\*

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Wind Turbine TRIII - 33
Location:	Antwerp, OH
Latitude:	41-08-41.66N NAD 83
Longitude:	84-47-25.93W
Heights:	741 feet site elevation (SE)
0	497 feet above ground level (AGL)
	1238 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

At least 10 days prior to start of construction (7460-2, Part 1) X Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

#### See attachment for additional condition(s) or information.

Any height exceeding 497 feet above ground level (1238 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 08/03/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

Additional wind turbines or met towers proposed in the future may cause a cumulative effect on the national airspace system. This determination is based, in part, on the foregoing description which includes specific coordinates and heights . Any changes in coordinates will void this determination. Any future construction or alteration requires separate notice to the FAA.

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 determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure 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.

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.

If we can be of further assistance, please contact our office at (816) 329-2528. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-WTE-6694-OE.

Signature Control No: 235856368-242260486 Cindy Whitten Specialist

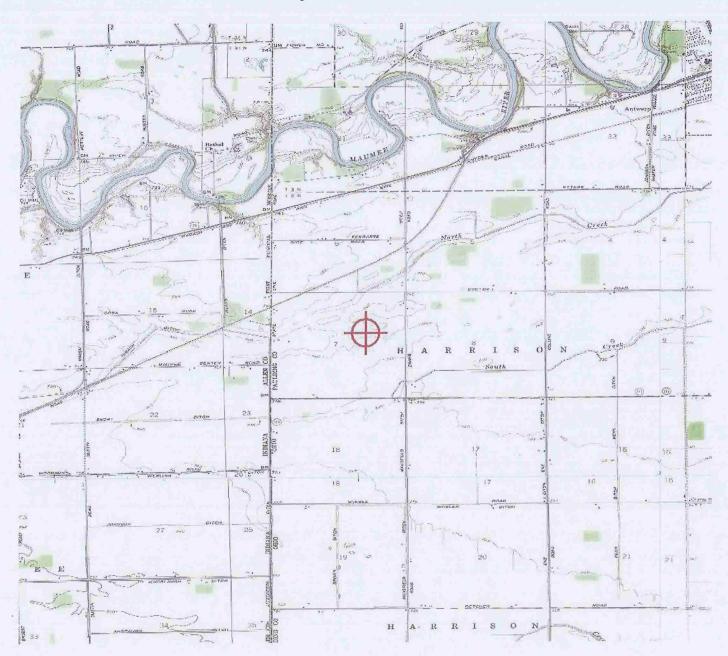
Attachment(s) Additional Information Map(s)

#### Additional information for ASN 2014-WTE-6694-OE

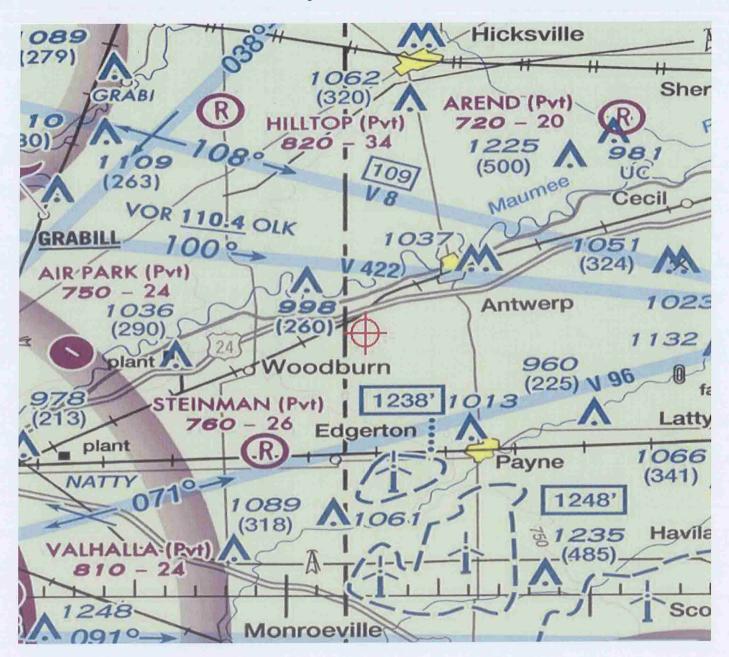
#### NOTE:

When you know for sure what your final layout plan will be for the entire project, please notify me at 816-329-2528 or at cindy.whitten@faa.gov and then I will go back and update the marking and lighting requirement for the entire project to reduce the number of wind turbines with the red light requirement if at all possible.

# TOPO Map for ASN 2014-WTE-6694-OE



## Sectional Map for ASN 2014-WTE-6694-OE



Aeronautical Study No. 2014-WTE-6693-OE



Mail Processing Center Federal Aviation Administration Southwest Regional Office Obstruction Evaluation Group 2601 Meacham Boulevard Fort Worth, TX 76193

Issued Date: 02/03/2015

Brian Dunneback Paulding III 129 E. Market St Suite 1200 Indianapolis, IN 46204

# **\*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\***

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Wind Turbine TRIII - 32
Location:	Antwerp, OH
Latitude:	41-08-28.95N NAD 83
Longitude:	84-47-25.94W
Heights:	744 feet site elevation (SE)
	497 feet above ground level (AGL)
	1241 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

At least 10 days prior to start of construction (7460-2, Part 1) X Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

### See attachment for additional condition(s) or information.

Any height exceeding 497 feet above ground level (1241 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 08/03/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

Additional wind turbines or met towers proposed in the future may cause a cumulative effect on the national airspace system. This determination is based, in part, on the foregoing description which includes specific coordinates and heights . Any changes in coordinates will void this determination. Any future construction or alteration requires separate notice to the FAA.

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 determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure 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.

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.

If we can be of further assistance, please contact our office at (816) 329-2528. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-WTE-6693-OE.

# Signature Control No: 235856367-242260493 Cindy Whitten Specialist

Attachment(s) Additional Information Map(s)

#### Additional information for ASN 2014-WTE-6693-OE

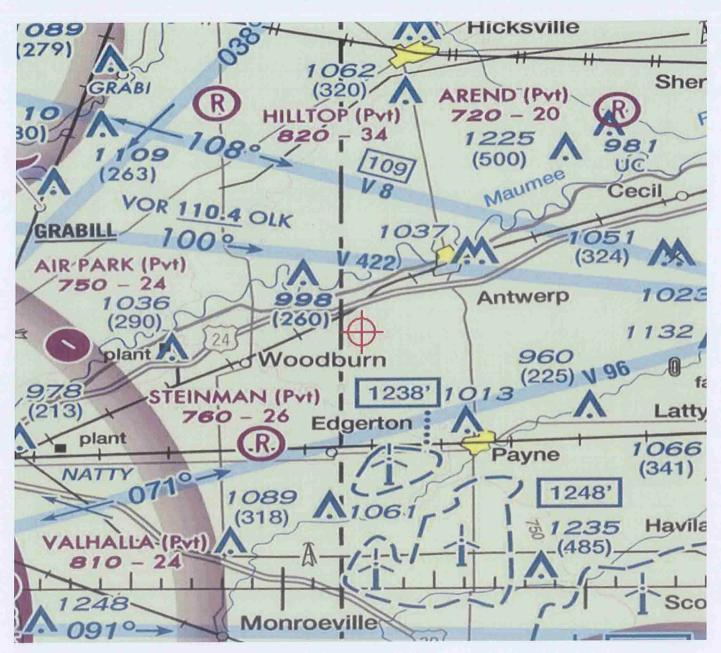
NOTE:

When you know for sure what your final layout plan will be for the entire project, please notify me at 816-329-2528 or at cindy.whitten@faa.gov and then I will go back and update the marking and lighting requirement for the entire project to reduce the number of wind turbines with the red light requirement if at all possible.

# TOPO Map for ASN 2014-WTE-6693-OE



Sectional Map for ASN 2014-WTE-6693-OE



Aeronautical Study No. 2014-WTE-6692-OE



Mail Processing Center Federal Aviation Administration Southwest Regional Office Obstruction Evaluation Group 2601 Meacham Boulevard Fort Worth, TX 76193

Issued Date: 02/03/2015

Brian Dunneback Paulding III 129 E. Market St Suite 1200 Indianapolis, IN 46204

# **\*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\***

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Wind Turbine TRIII - 31
Location:	Antwerp, OH
Latitude:	41-08-14.67N NAD 83
Longitude:	84-47-24.21W
Heights:	744 feet site elevation (SE)
-	497 feet above ground level (AGL)
	1241 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

At least 10 days prior to start of construction (7460-2, Part 1)

X Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

# See attachment for additional condition(s) or information.

Any height exceeding 497 feet above ground level (1241 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 08/03/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
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NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

Additional wind turbines or met towers proposed in the future may cause a cumulative effect on the national airspace system. This determination is based, in part, on the foregoing description which includes specific coordinates and heights . Any changes in coordinates will void this determination. Any future construction or alteration requires separate notice to the FAA.

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 determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure 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.

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.

If we can be of further assistance, please contact our office at (816) 329-2528. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-WTE-6692-OE.

# Signature Control No: 235856366-242260488 Cindy Whitten Specialist

Attachment(s) Additional Information Map(s)

#### Additional information for ASN 2014-WTE-6692-OE

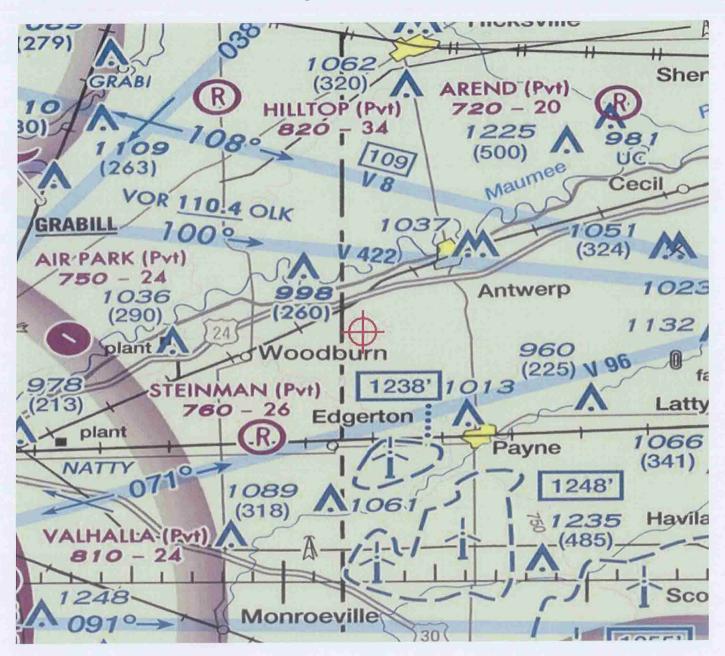
### NOTE:

When you know for sure what your final layout plan will be for the entire project, please notify me at 816-329-2528 or at cindy.whitten@faa.gov and then I will go back and update the marking and lighting requirement for the entire project to reduce the number of wind turbines with the red light requirement if at all possible.

# TOPO Map for ASN 2014-WTE-6692-OE



### Sectional Map for ASN 2014-WTE-6692-OE



Aeronautical Study No. 2014-WTE-6690-OE



Mail Processing Center Federal Aviation Administration Southwest Regional Office Obstruction Evaluation Group 2601 Meacham Boulevard Fort Worth, TX 76193

Issued Date: 02/03/2015

Brian Dunneback Paulding III 129 E. Market St Suite 1200 Indianapolis, IN 46204

## **\*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\***

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Wind Turbine TRIII - 21
Location:	Antwerp, OH
Latitude:	41-07-28.56N NAD 83
Longitude:	84-47-37.40W
Heights:	750 feet site elevation (SE)
-	497 feet above ground level (AGL)
	1247 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

At least 10 days prior to start of construction (7460-2, Part 1) X Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

### See attachment for additional condition(s) or information.

Any height exceeding 497 feet above ground level (1247 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 08/03/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.

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Additional wind turbines or met towers proposed in the future may cause a cumulative effect on the national airspace system. This determination is based, in part, on the foregoing description which includes specific coordinates and heights . Any changes in coordinates will void this determination. Any future construction or alteration requires separate notice to the FAA.

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.

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This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

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If we can be of further assistance, please contact our office at (816) 329-2528. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-WTE-6690-OE.

# Signature Control No: 235856364-242260489 Cindy Whitten Specialist

Attachment(s) Additional Information Map(s)

# Additional information for ASN 2014-WTE-6690-OE

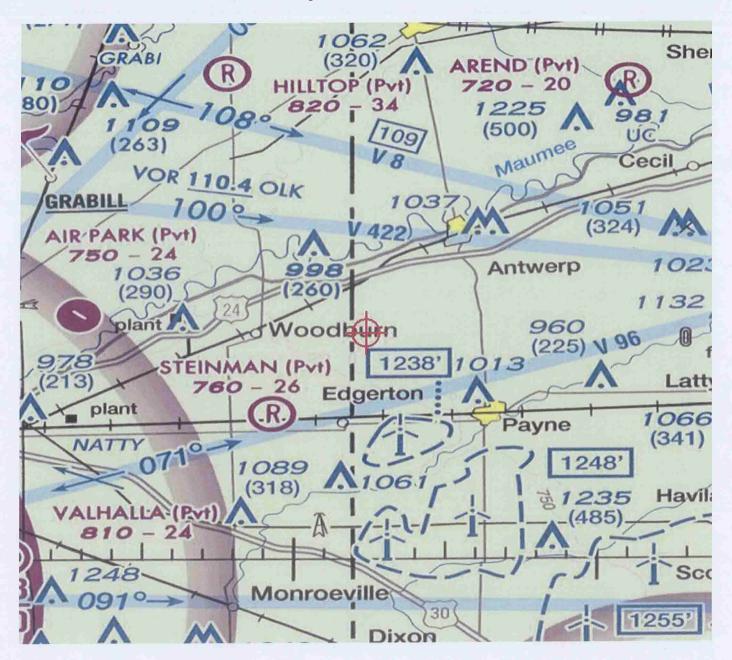
### NOTE:

When you know for sure what your final layout plan will be for the entire project, please notify me at 816-329-2528 or at cindy.whitten@faa.gov and then I will go back and update the marking and lighting requirement for the entire project to reduce the number of wind turbines with the red light requirement if at all possible.

# TOPO Map for ASN 2014-WTE-6690-OE



Sectional Map for ASN 2014-WTE-6690-OE



Aeronautical Study No. 2014-WTE-6689-OE



Mail Processing Center Federal Aviation Administration Southwest Regional Office Obstruction Evaluation Group 2601 Meacham Boulevard Fort Worth, TX 76193

Issued Date: 02/03/2015

Brian Dunneback Paulding III 129 E. Market St Suite 1200 Indianapolis, IN 46204

## **\*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\***

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Structure:	Wind Turbine TRIII - 20
Location:	Antwerp, OH
Latitude:	41-07-10.93N NAD 83
Longitude:	84-47-32.85W
Heights:	751 feet site elevation (SE)
C	497 feet above ground level (AGL)
	1248 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

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X Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

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If we can be of further assistance, please contact our office at (816) 329-2528. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-WTE-6689-OE.

Signature Control No: 235856363-242260490 Cindy Whitten Specialist

Attachment(s) Additional Information Map(s)

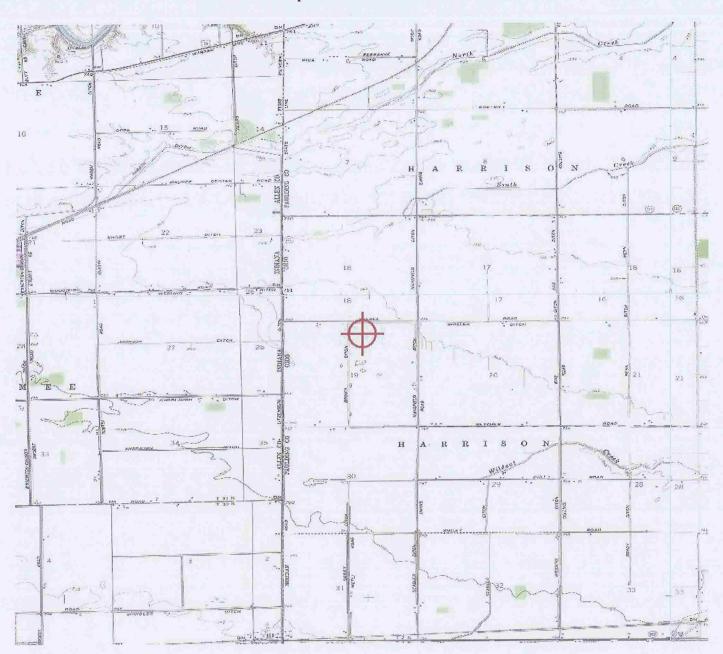
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#### Additional information for ASN 2014-WTE-6689-OE

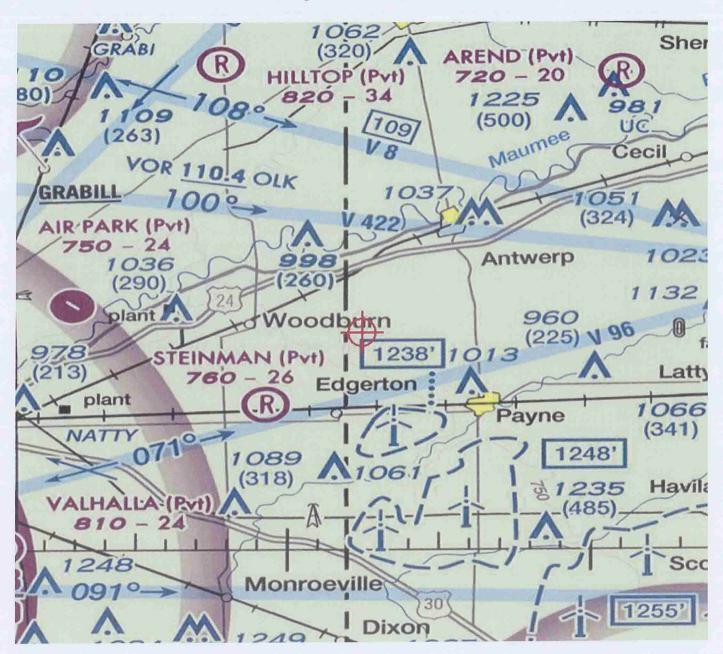
#### NOTE:

When you know for sure what your final layout plan will be for the entire project, please notify me at 816-329-2528 or at cindy.whitten@faa.gov and then I will go back and update the marking and lighting requirement for the entire project to reduce the number of wind turbines with the red light requirement if at all possible.

# TOPO Map for ASN 2014-WTE-6689-OE



Sectional Map for ASN 2014-WTE-6689-OE



Aeronautical Study No. 2014-WTE-6688-OE



Mail Processing Center Federal Aviation Administration Southwest Regional Office Obstruction Evaluation Group 2601 Meacham Boulevard Fort Worth, TX 76193

Issued Date: 02/03/2015

Brian Dunneback Paulding III 129 E. Market St Suite 1200 Indianapolis, IN 46204

## **\*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\***

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Wind Turbine TRIII - 19
Location:	Antwerp, OH
Latitude:	41-06-58.23N NAD 83
Longitude:	84-47-32.88W
Heights:	752 feet site elevation (SE)
-	497 feet above ground level (AGL)
	1249 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

At least 10 days prior to start of construction (7460-2, Part 1)

X Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

#### See attachment for additional condition(s) or information.

Any height exceeding 497 feet above ground level (1249 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 08/03/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

Additional wind turbines or met towers proposed in the future may cause a cumulative effect on the national airspace system. This determination is based, in part, on the foregoing description which includes specific coordinates and heights . Any changes in coordinates will void this determination. Any future construction or alteration requires separate notice to the FAA.

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 determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure 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.

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.

If we can be of further assistance, please contact our office at (816) 329-2528. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-WTE-6688-OE.

# Signature Control No: 235856362-242260238 Cindy Whitten Specialist

Attachment(s) Additional Information Map(s)

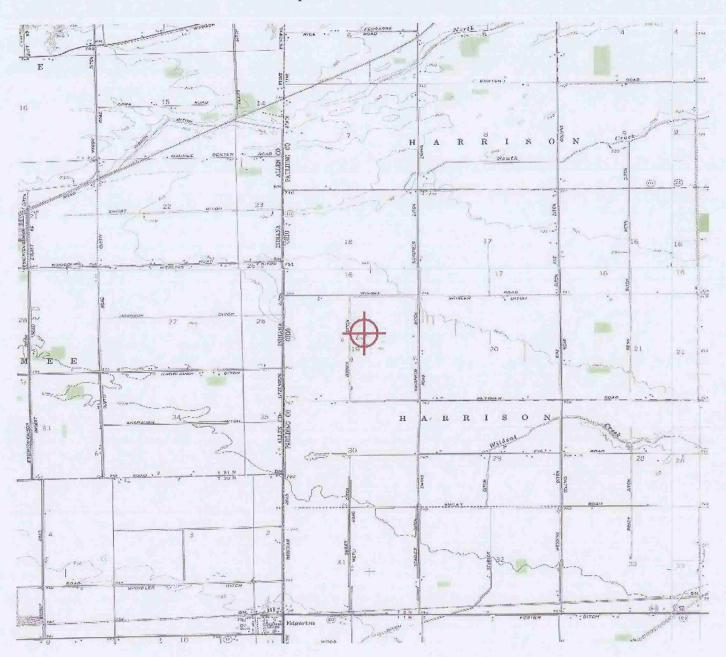
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#### Additional information for ASN 2014-WTE-6688-OE

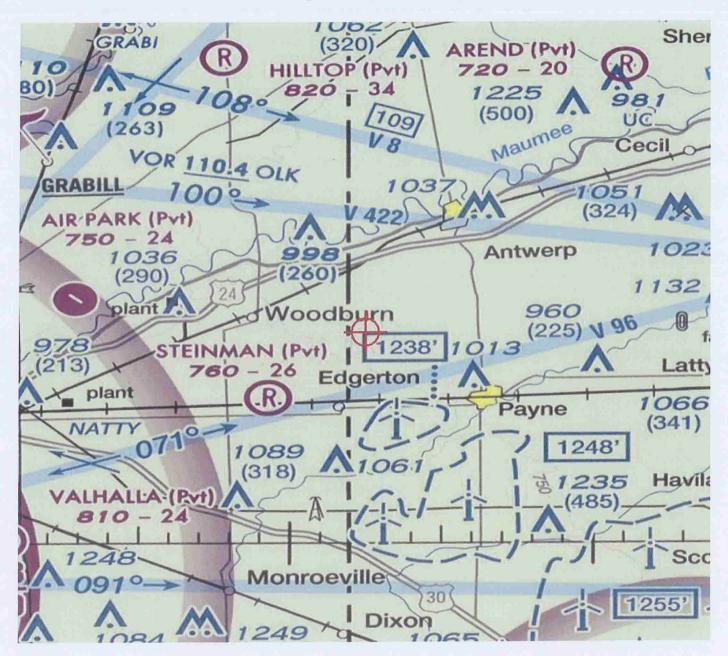
NOTE:

When you know for sure what your final layout plan will be for the entire project, please notify me at 816-329-2528 or at cindy.whitten@faa.gov and then I will go back and update the marking and lighting requirement for the entire project to reduce the number of wind turbines with the red light requirement if at all possible.

# TOPO Map for ASN 2014-WTE-6688-OE



#### Sectional Map for ASN 2014-WTE-6688-OE





Mail Processing Center Federal Aviation Administration Southwest Regional Office Obstruction Evaluation Group 2601 Meacham Boulevard Fort Worth, TX 76193

Issued Date: 02/03/2015

Brian Dunneback Paulding III 129 E. Market St Suite 1200 Indianapolis, IN 46204

# **\*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\***

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Wind Turbine TRIII - 11
Location:	Antwerp, OH
Latitude:	41-06-03.69N NAD 83
Longitude:	84-47-55.19W
Heights:	752 feet site elevation (SE)
C	497 feet above ground level (AGL)
	1249 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

At least 10 days prior to start of construction (7460-2, Part 1)

X Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

### See attachment for additional condition(s) or information.

Any height exceeding 497 feet above ground level (1249 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 08/03/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

Additional wind turbines or met towers proposed in the future may cause a cumulative effect on the national airspace system. This determination is based, in part, on the foregoing description which includes specific coordinates and heights . Any changes in coordinates will void this determination. Any future construction or alteration requires separate notice to the FAA.

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.

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This determination concerns the effect of this structure 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.

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.

If we can be of further assistance, please contact our office at (816) 329-2528. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-WTE-6681-OE.

# Signature Control No: 235856354-242260217 Cindy Whitten Specialist

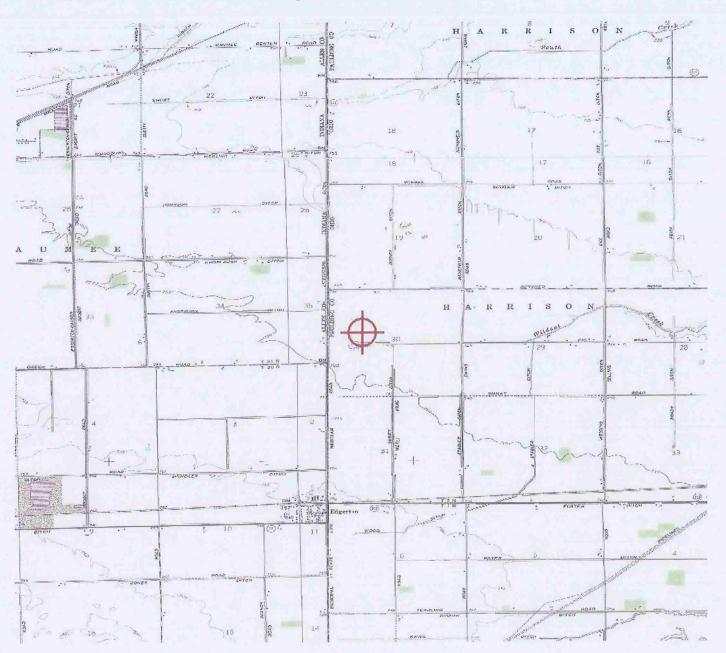
Attachment(s) Additional Information Map(s)

# Additional information for ASN 2014-WTE-6681-OE

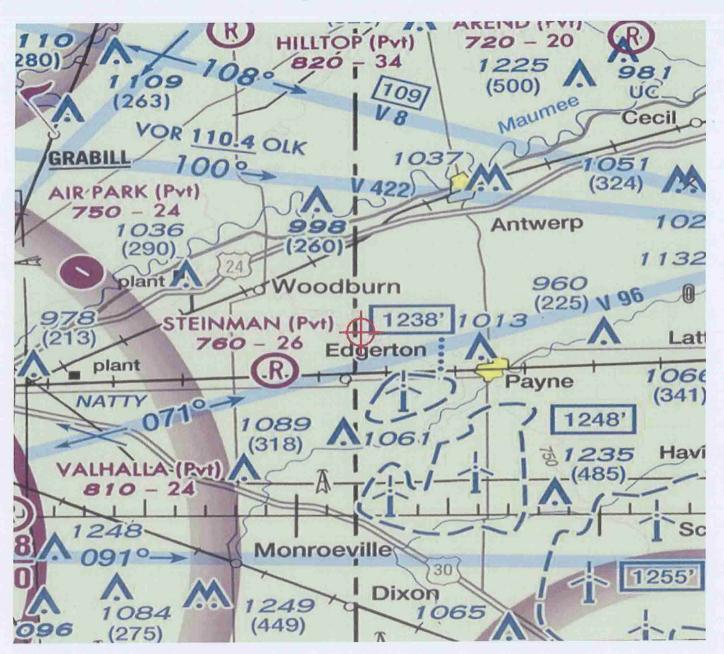
### NOTE:

When you know for sure what your final layout plan will be for the entire project, please notify me at 816-329-2528 or at cindy.whitten@faa.gov and then I will go back and update the marking and lighting requirement for the entire project to reduce the number of wind turbines with the red light requirement if at all possible.

# TOPO Map for ASN 2014-WTE-6681-OE



Sectional Map for ASN 2014-WTE-6681-OE





Mail Processing Center Federal Aviation Administration Southwest Regional Office Obstruction Evaluation Group 2601 Meacham Boulevard Fort Worth, TX 76193

Issued Date: 02/03/2015

Brian Dunneback Paulding III 129 E. Market St Suite 1200 Indianapolis, IN 46204

## **\*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\***

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Wind Turbine TRIII - 25
Location:	Antwerp, OH
Latitude:	41-08-03.72N NAD 83
Longitude:	84-46-33.70W
Heights:	742 feet site elevation (SE)
-	497 feet above ground level (AGL)
	1239 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

\_\_\_\_\_ At least 10 days prior to start of construction (7460-2, Part 1) \_\_\_\_\_ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

# See attachment for additional condition(s) or information.

Any height exceeding 497 feet above ground level (1239 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 08/03/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

12/9/2015 2:23:45 PM

in

# Case No(s). 15-2030-EL-BGA, 15-2031-EL-BGA

Summary: Application Exhibit E - FAA Determinations electronically filed by Mr. Michael J. Settineri on behalf of Paulding Wind Farm LLC and Paulding Wind Farm III LLC