

-Info-Public Service Commission

From: Aron Anderson <aanderson@solasenergyconsulting.com>
Sent: Friday, November 04, 2016 3:01 PM
To: Lein, Jerry R.; thartleben@carlsonmccain.com; -Info-Public Service Commission
Cc: Jed Dailey; Cindy Whitney; Ryan Hartleben; Jon Johnson
Subject: Sunflower Wind Project - Case Number: PU-14-105
Attachments: 2016-WTE-7557_WT28.pdf; 2014-WTE-5845_WT40.pdf; 2014-WTE-5850_WT45.pdf; 2016-WTE-6456_WT03.pdf; 2016-WTE-6463_WT02.pdf; 2016-WTE-6527_WT01.pdf; 2016-WTE-6540_WT04.pdf; 2016-WTE-6546_WT05.pdf; 2016-WTE-6560_WT06.pdf; 2016-WTE-6561_WT07.pdf; 2016-WTE-6656_WT08.pdf; 2016-WTE-6657_WT11.pdf; 2016-WTE-6705_WT12.pdf; 2016-WTE-6706_WT13.pdf; 2016-WTE-6707_WT14.pdf

Jerry,

As noted on our weekly report we have completed turbine erection today. By the end of the day we will have filed all 52 turbine 7460-2s with the FAA. See attached 7640-2s we have received back from the FAA to date on the Sunflower Wind Project. We will continue to provide via email as they come in and will mail a hardcopy once we have all -2s in hand for your records. Please let me know if you have any questions.

Also, do you want to schedule a date and time to do a site inspection for this year's work?

Thank You,

Aron Anderson
Senior Project Manager
Solas Energy Consulting US Inc.
Mobile: (612) 599-4251
Email: aanderson@solasenergyconsulting.com



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

Aeronautical Study No.
2016-WTE-7557-OE
Prior Study No.
2014-WTE-5833-OE

Issued Date: 10/03/2016

Cindy Whitney
Solus Energy Consulting
430 North College Avenue, Suite 440
Fort Collins, CO 80524

**** 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 Wind Turbine 28
Location:	Hebron, ND
Latitude:	46-49-43.40N NAD 83
Longitude:	102-04-46.28W
Heights:	2471 feet site elevation (SE) 426 feet above ground level (AGL) 2897 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 L, Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

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.

This aeronautical study included evaluation of a structure that exists at this time. Action will be taken to ensure aeronautical charts are updated to reflect the most current coordinates, elevation and height as indicated in the case description.

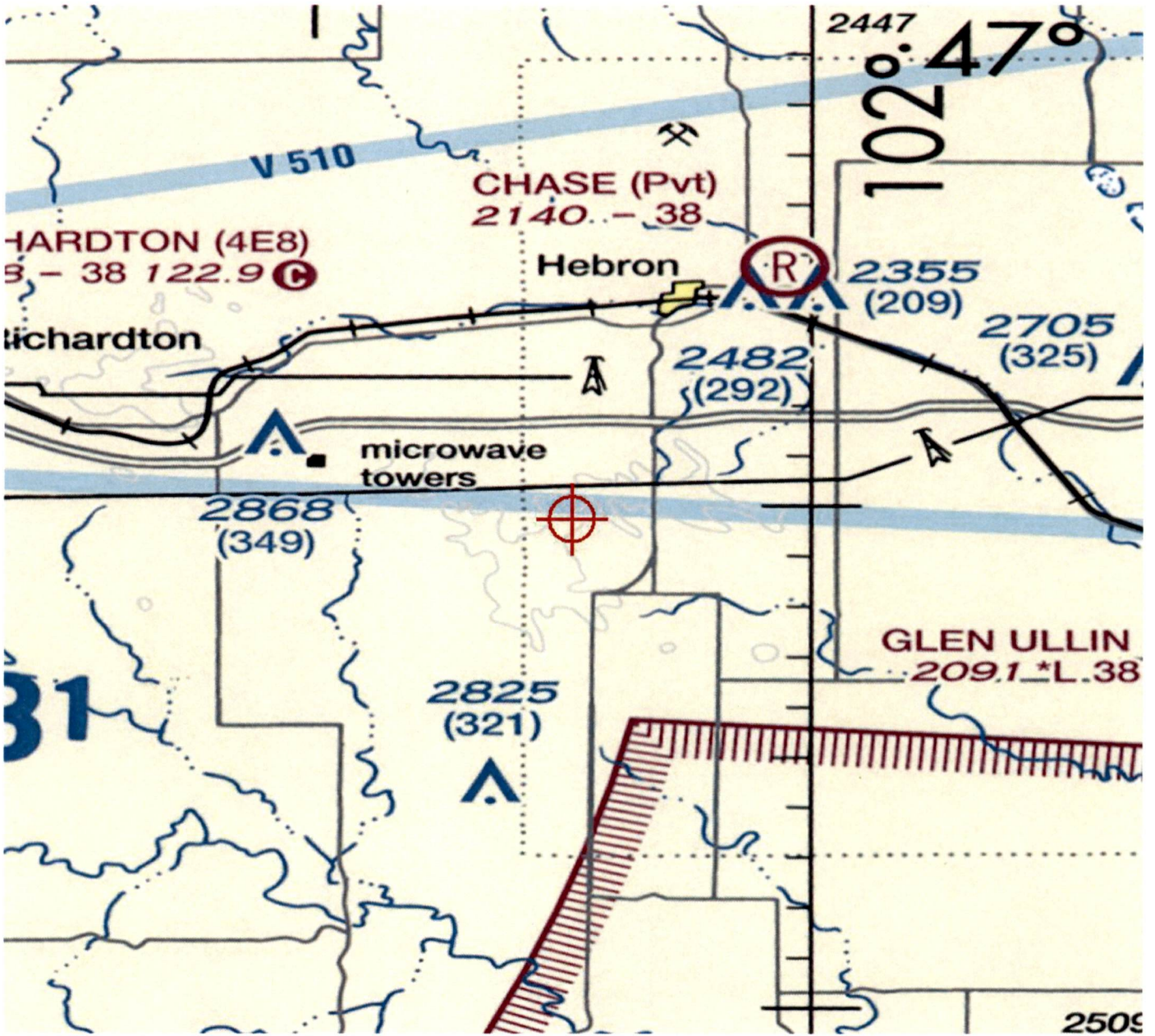
If we can be of further assistance, please contact our office at (816) 329-2523. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2016-WTE-7557-OE.

Signature Control No: 305651324-306319578
Steve Phillips
Specialist

(DNE -WT)

Attachment(s)
Map(s)

Sectional Map for ASN 2016-WTE-7557-OE





Federal Aviation Administration

<< OE/AAA

Form 7460-2 for ASN: 2014-WTE-5850-OE

Construction	
Construction Type: New	Owner of Structure: Sunflower Wind Project, LLC
Construction Location / Height	
Latitude: 46° 49' 22.58" N	Address:
Longitude: 102° 01' 27.37" W	Address 2:
Horizontal Datum: NAD 83	City: Hebron
Site Elevation (SE): 2424 (nearest foot)	State: ND
Structure Height (AGL): 426 (nearest foot)	
Site Elevation Determined By: Actual As-Built Survey	
Construction Notifications	
Construction Start Date:	Abandon Date:
Estimated End Date:	Dismantled Date:
Greatest Height Reached Date: 10/11/2016	M&L Change Date:
	Extension Request Date:
Antenna Requiring FCC License	
ASR Number:	FCC Permit Applied Date:
	FCC Permit Issued Date:
Marking and Lighting	
Marking and Lighting: White Paint/Synchronized Red Lights	
Estimated Date ADLS will be installed:	
Estimated Date ADLS will be operational:	
Date ADLS enabled:	
Date ADLS discontinued:	
Latest Supplemental Case Note	
Latest Supplemental Case Note:	
Comments: Construction has not started. Please consider an extension of the Effective Period of this determination for an additional 18 months.	



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

Aeronautical Study No.
2016-WTE-6463-OE
Prior Study No.
2014-WTE-5807-OE

Issued Date: 10/03/2016

Cindy Whitney
Solas Energy Consulting
430 North College Avenue, Suite 440
Fort Collins, CO 80524

**** 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 Wind Turbine 2
Location:	Hebron, ND
Latitude:	46-49-16.92N NAD 83
Longitude:	102-07-44.23W
Heights:	2465 feet site elevation (SE) 426 feet above ground level (AGL) 2891 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 L, Obstruction Marking and Lighting, white paint only - Chapters 12&13(Turbines).

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.

This aeronautical study included evaluation of a structure that exists at this time. Action will be taken to ensure aeronautical charts are updated to reflect the most current coordinates, elevation and height as indicated in the case description.

If we can be of further assistance, please contact our office at (816) 329-2523. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2016-WTE-6463-OE.

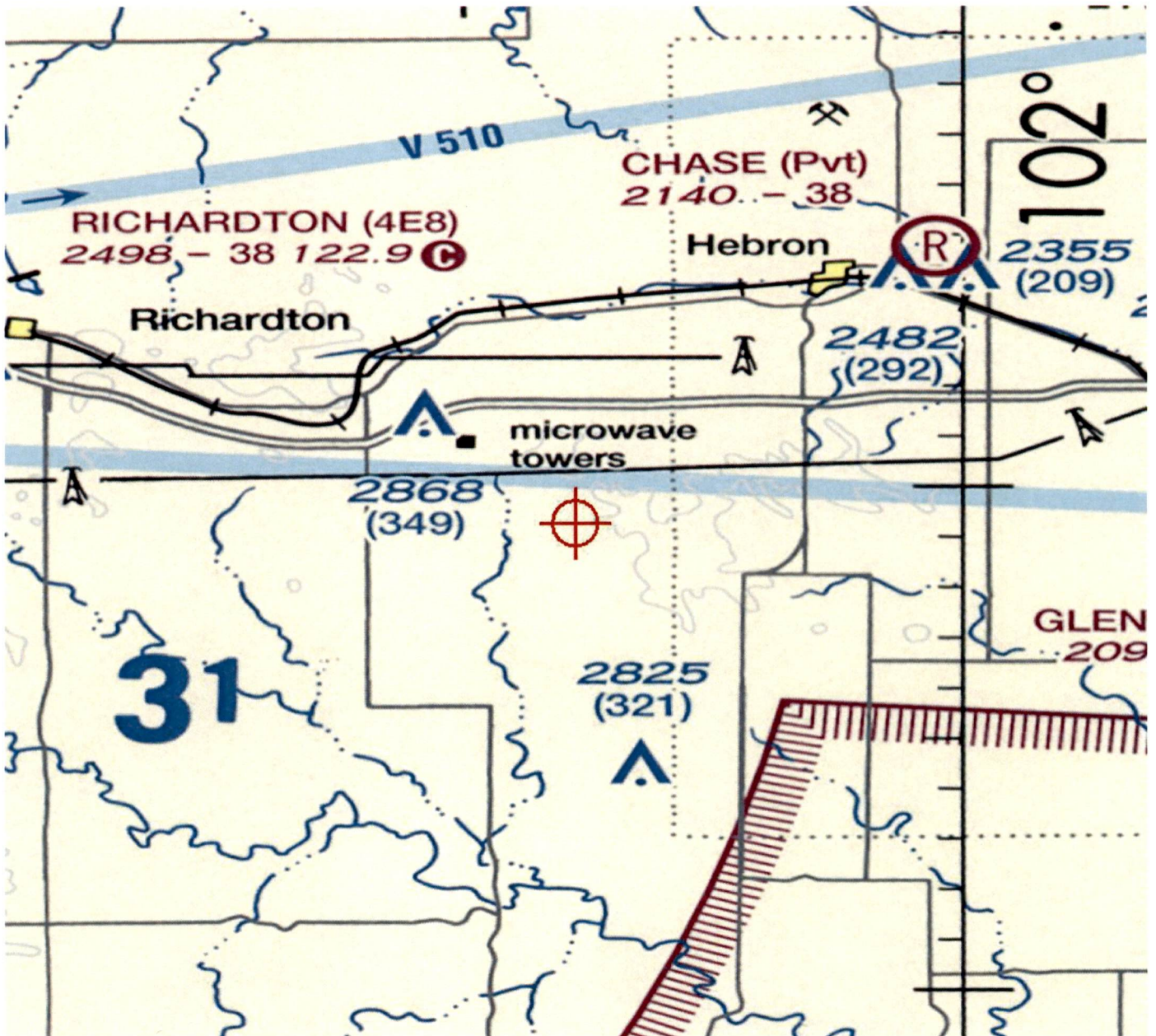
Signature Control No: 303713571-306319733

(DNE -WT)

Steve Phillips
Specialist

Attachment(s)
Map(s)

Sectional Map for ASN 2016-WTE-6463-OE





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

Aeronautical Study No.
2016-WTE-6540-OE
Prior Study No.
2014-WTE-5809-OE

Issued Date: 10/03/2016

Cindy Whitney
Solas Energy Consulting
430 North College Avenue, Suite 440
Fort Collins, CO 80524

**** 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 Wind Turbine 4
Location: Hebron, ND
Latitude: 46-49-46.15N NAD 83
Longitude: 102-07-15.80W
Heights: 2492 feet site elevation (SE)
426 feet above ground level (AGL)
2918 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 L, Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

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.

This aeronautical study included evaluation of a structure that exists at this time. Action will be taken to ensure aeronautical charts are updated to reflect the most current coordinates, elevation and height as indicated in the case description.

If we can be of further assistance, please contact our office at (816) 329-2523. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2016-WTE-6540-OE.

Signature Control No: 304192175-306319575

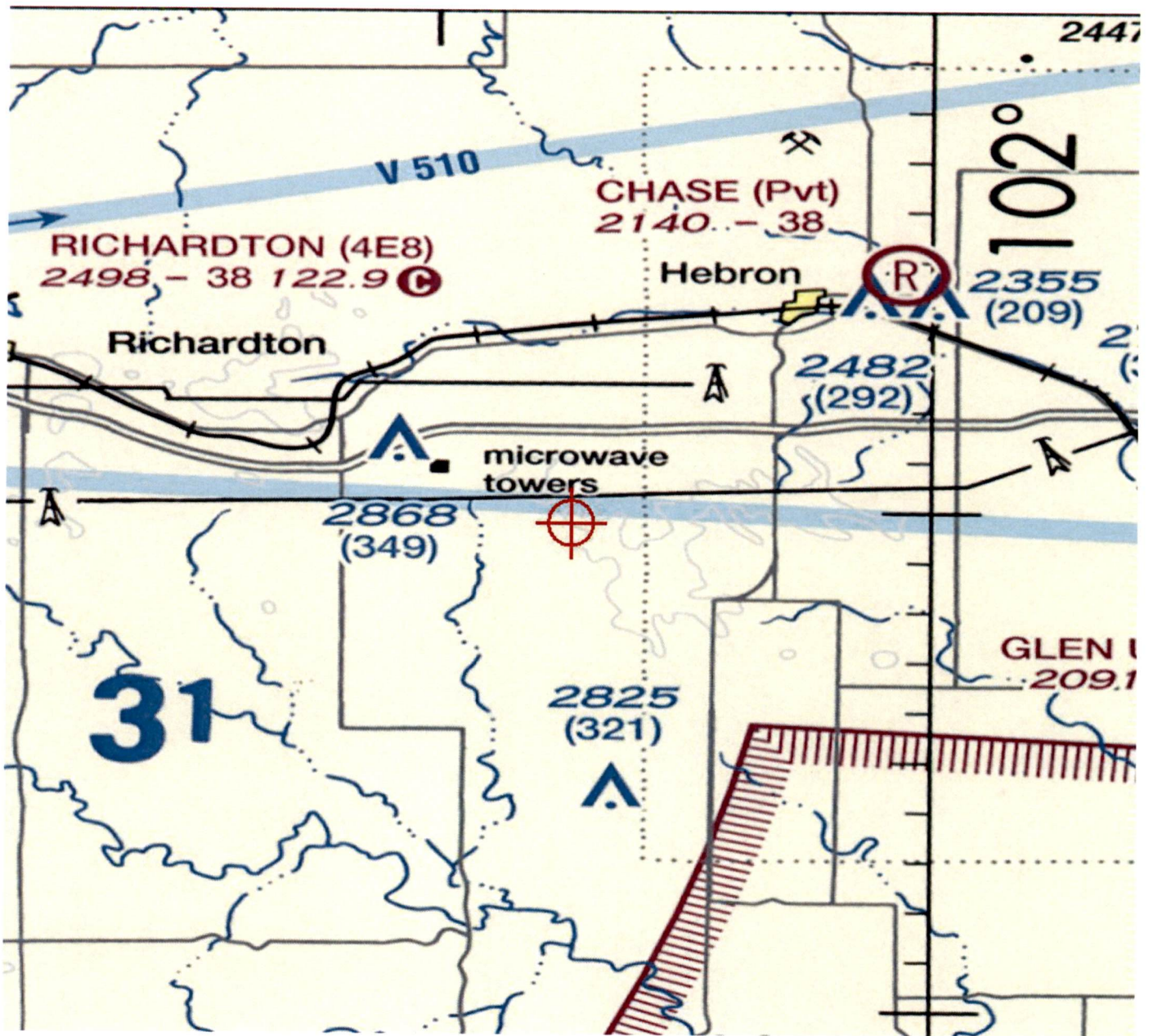
Steve Phillips
Specialist

(DNE -WT)

Attachment(s)

Map(s)

Sectional Map for ASN 2016-WTE-6540-OE





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

Aeronautical Study No.
2016-WTE-6560-OE
Prior Study No.
2014-WTE-5811-OE

Issued Date: 10/03/2016

Cindy Whitney
Solas Energy Consulting
430 North College Avenue, Suite 440
Fort Collins, CO 80524

**** 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 Wind Turbine 6
Location:	Hebron, ND
Latitude:	46-49-47.19N NAD 83
Longitude:	102-06-35.64W
Heights:	2480 feet site elevation (SE) 426 feet above ground level (AGL) 2906 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 L, Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

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.

This aeronautical study included evaluation of a structure that exists at this time. Action will be taken to ensure aeronautical charts are updated to reflect the most current coordinates, elevation and height as indicated in the case description.

If we can be of further assistance, please contact our office at (816) 329-2523. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2016-WTE-6560-OE.

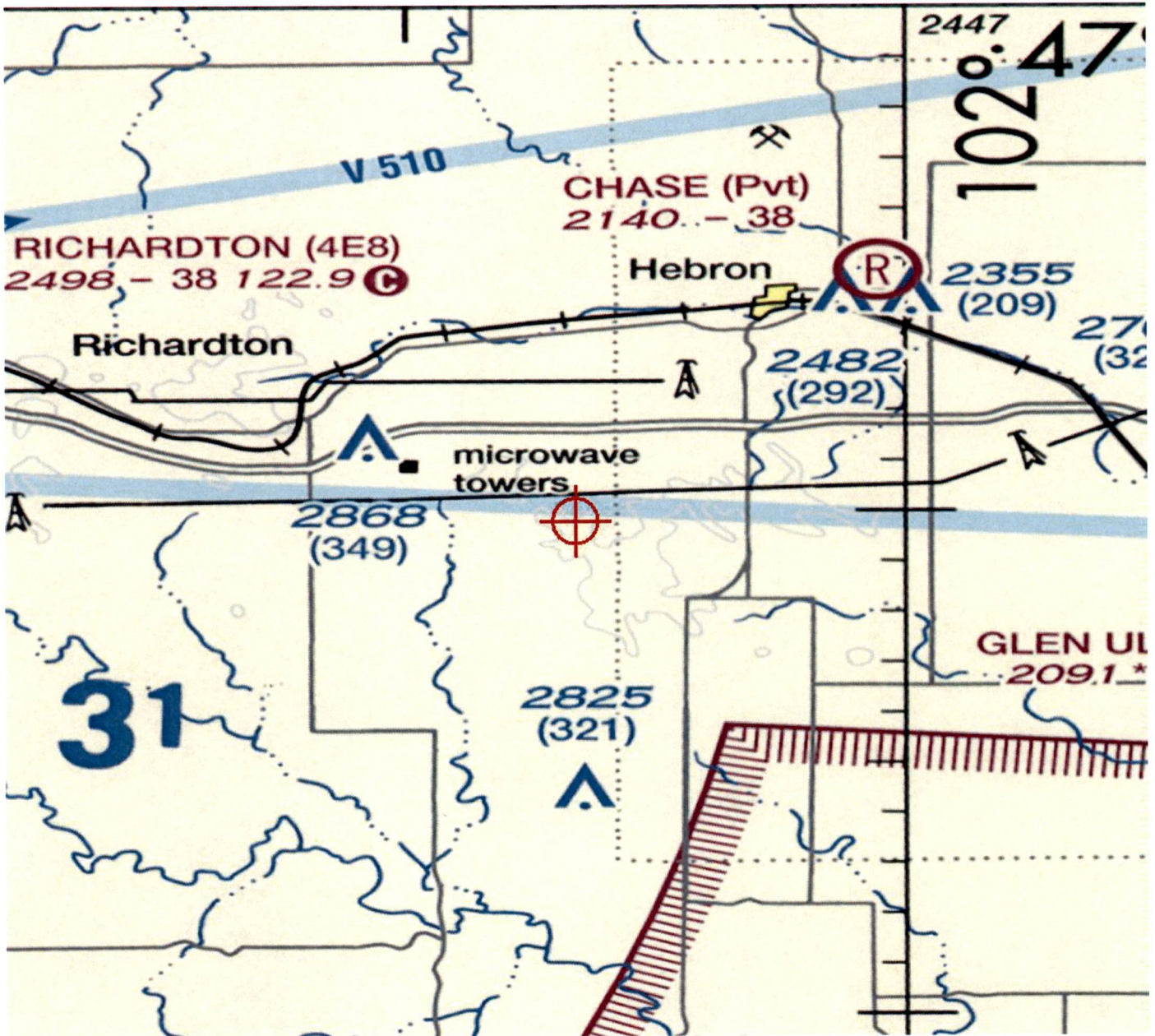
Signature Control No: 304607362-306319581

(DNE -WT)

Steve Phillips
Specialist

Attachment(s)
Map(s)

Sectional Map for ASN 2016-WTE-6560-OE





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

Aeronautical Study No.
2016-WTE-6656-OE
Prior Study No.
2014-WTE-5813-OE

Issued Date: 10/03/2016

Cindy Whitney
Solas Energy Consulting
430 North College Avenue, Suite 440
Fort Collins, CO 80524

**** 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 Wind Turbine 8
Location:	Hebron, ND
Latitude:	46-50-10.67N NAD 83
Longitude:	102-06-21.45W
Heights:	2421 feet site elevation (SE) 426 feet above ground level (AGL) 2847 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 L, Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

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.

This aeronautical study included evaluation of a structure that exists at this time. Action will be taken to ensure aeronautical charts are updated to reflect the most current coordinates, elevation and height as indicated in the case description.

If we can be of further assistance, please contact our office at (816) 329-2523. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2016-WTE-6656-OE.

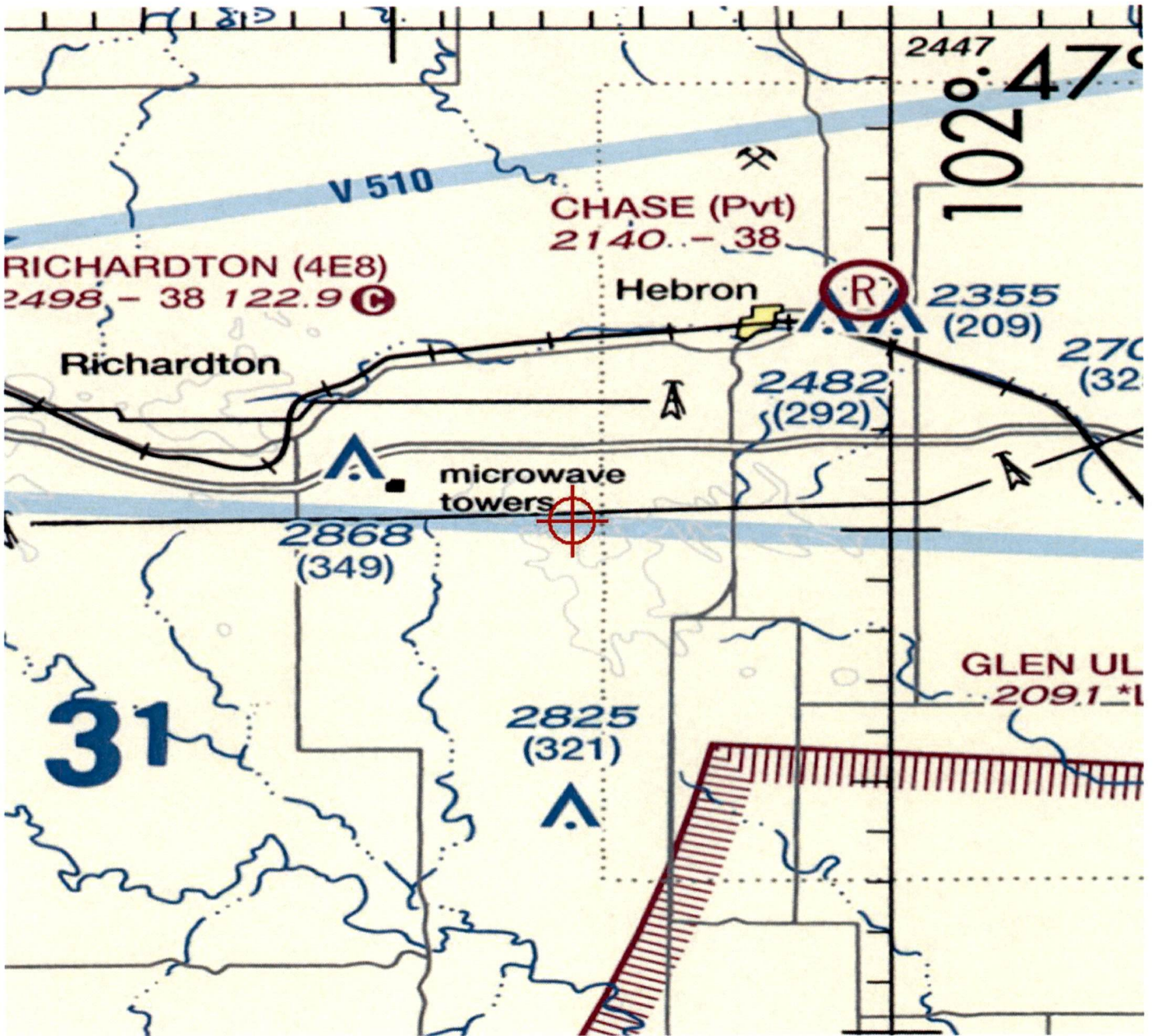
Signature Control No: 305008238-306319576

(DNE -WT)

Steve Phillips
Specialist

Attachment(s)
Map(s)

Sectional Map for ASN 2016-WTE-6656-OE





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

Aeronautical Study No.
2016-WTE-6705-OE
Prior Study No.
2014-WTE-5817-OE

Issued Date: 10/03/2016

Cindy Whitney
Solas Energy Consulting
430 North College Avenue, Suite 440
Fort Collins, CO 80524

**** 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 Wind Turbine 12
Location:	Hebron, ND
Latitude:	46-50-12.06N NAD 83
Longitude:	102-05-18.18W
Heights:	2509 feet site elevation (SE) 426 feet above ground level (AGL) 2935 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 L, Obstruction Marking and Lighting, white paint only - Chapters 12&13(Turbines).

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.

This aeronautical study included evaluation of a structure that exists at this time. Action will be taken to ensure aeronautical charts are updated to reflect the most current coordinates, elevation and height as indicated in the case description.

If we can be of further assistance, please contact our office at (816) 329-2523. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2016-WTE-6705-OE.

Signature Control No: 305256427-306319732

Steve Phillips
Specialist

(DNE -WT)

Attachment(s)
Map(s)



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

Aeronautical Study No.
2016-WTE-6707-OE
Prior Study No.
2014-WTE-5819-OE

Issued Date: 10/03/2016

Cindy Whitney
Solas Energy Consulting
430 North College Avenue, Suite 440
Fort Collins, CO 80524

**** 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 Wind Turbine 14
Location: Hebron, ND
Latitude: 46-50-17.38N NAD 83
Longitude: 102-04-40.53W
Heights: 2505 feet site elevation (SE)
426 feet above ground level (AGL)
2931 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 L, Obstruction Marking and Lighting, white paint only - Chapters 12&13(Turbines).

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.

This aeronautical study included evaluation of a structure that exists at this time. Action will be taken to ensure aeronautical charts are updated to reflect the most current coordinates, elevation and height as indicated in the case description.

If we can be of further assistance, please contact our office at (816) 329-2523. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2016-WTE-6707-OE.

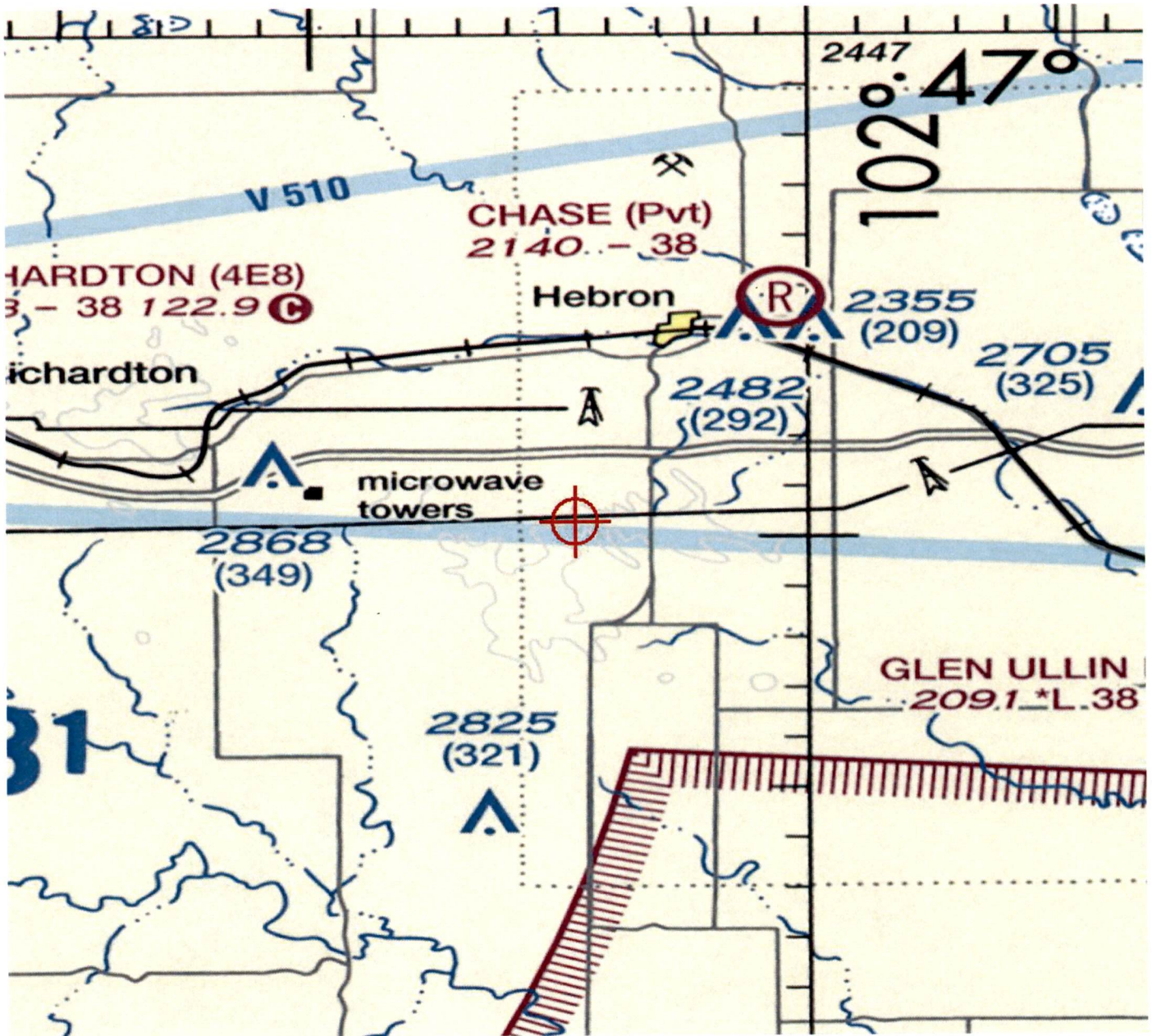
Signature Control No: 305256529-306319731

(DNE -WT)

Steve Phillips
Specialist

Attachment(s)
Map(s)

Sectional Map for ASN 2016-WTE-6707-OE





Federal Aviation Administration

The system will be going offline at 7pm ET on Thursday, October 27, 2016 for upgrades. We apologize for any inconvenience.

<< OE/AAA

Form 7460-2 for ASN: 2014-WTE-5845-OE

Construction	
Construction Type: New	Owner of Structure: Sunflower Wind Project, LLC
Construction Location / Height	
Latitude: 46° 49' 32.50" N	Address:
Longitude: 102° 02' 34.79" W	Address 2:
Horizontal Datum: NAD 83	City: Hebron
Site Elevation (SE): 2447 (nearest foot)	State: ND
Structure Height (AGL): 426 (nearest foot)	
Site Elevation Determined By: Actual As-Built Survey	
Construction Notifications	
Construction Start Date:	Abandon Date:
Estimated End Date:	Dismantled Date:
Greatest Height Reached Date: 10/23/2016	M&L Change Date:
	Extension Request Date:
Antenna Requiring FCC License	
ASR Number:	FCC Permit Applied Date:
	FCC Permit Issued Date:
Marking and Lighting	
Marking and Lighting: White Paint Only	
Estimated Date ADLS will be installed:	
Estimated Date ADLS will be operational:	
Date ADLS enabled:	
Date ADLS discontinued:	
Latest Supplemental Case Note	
Latest Supplemental Case Note:	
Comments:	Construction has not started. Please consider an extension of the Effective Period of this determination for an additional 18 months.



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

Aeronautical Study No.
2016-WTE-6456-OE
Prior Study No.
2014-WTE-5808-OE

Issued Date: 10/03/2016

Cindy Whitney
Solus Energy Consulting
430 North College Avenue, Suite 440
Fort Collins, CO 80524

**** 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 Wind Turbine 3
Location: Hebron, ND
Latitude: 46-49-23.40N NAD 83
Longitude: 102-07-27.14W
Heights: 2501 feet site elevation (SE)
426 feet above ground level (AGL)
2927 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 L, Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

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.

This aeronautical study included evaluation of a structure that exists at this time. Action will be taken to ensure aeronautical charts are updated to reflect the most current coordinates, elevation and height as indicated in the case description.

If we can be of further assistance, please contact our office at (816) 329-2523. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2016-WTE-6456-OE.

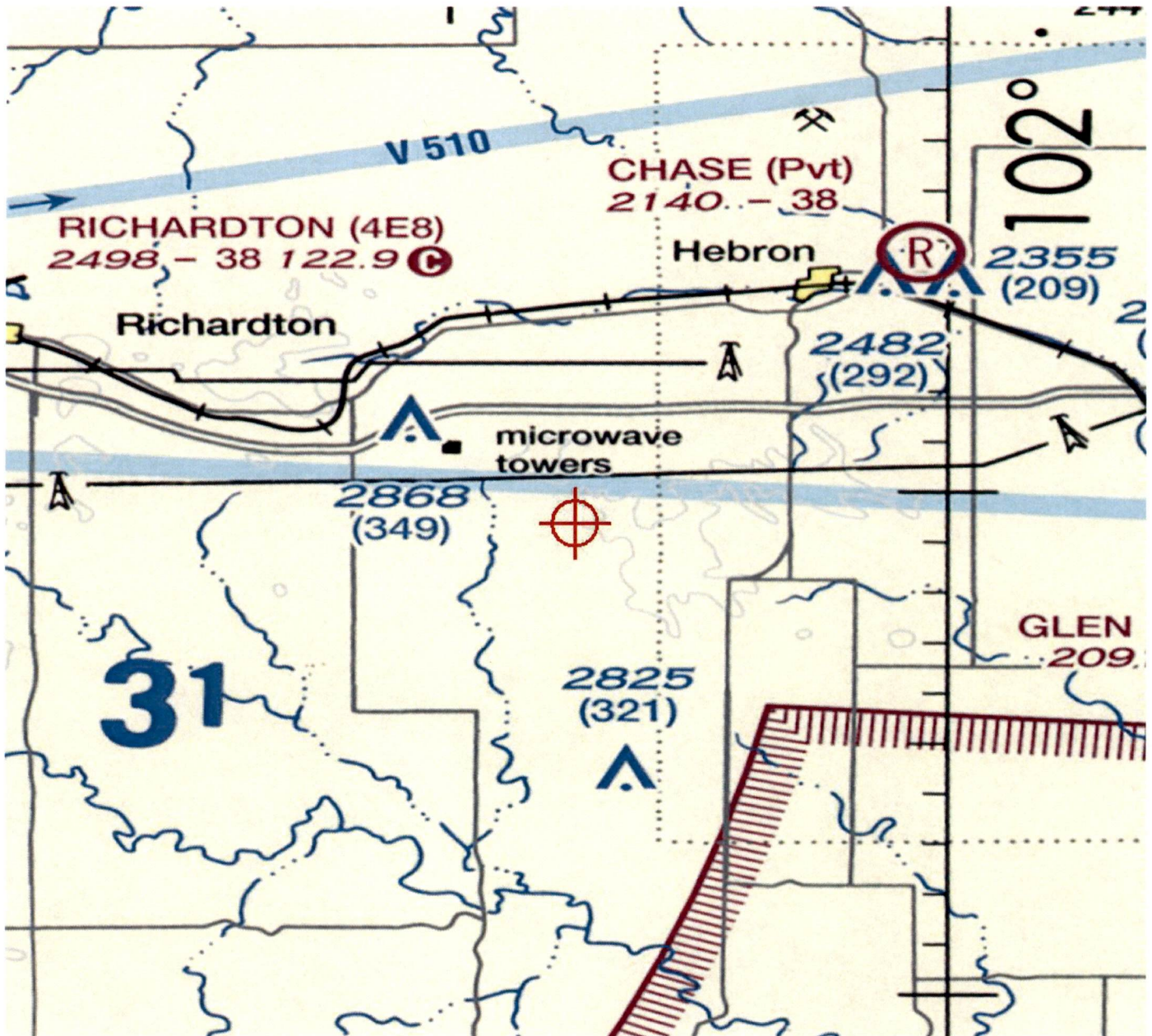
Signature Control No: 303557796-306319577

(DNE -WT)

Steve Phillips
Specialist

Attachment(s)
Map(s)

Sectional Map for ASN 2016-WTE-6456-OE





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

Aeronautical Study No.
2016-WTE-6527-OE
Prior Study No.
2014-WTE-5806-OE

Issued Date: 10/03/2016

Cindy Whitney
Solas Energy Consulting
430 North College Avenue, Suite 440
Fort Collins, CO 80524

**** 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 Wind Turbine 1
Location:	Hebron, ND
Latitude:	46-49-17.02N NAD 83
Longitude:	102-08-05.39W
Heights:	2446 feet site elevation (SE) 426 feet above ground level (AGL) 2872 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 L, Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

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.

This aeronautical study included evaluation of a structure that exists at this time. Action will be taken to ensure aeronautical charts are updated to reflect the most current coordinates, elevation and height as indicated in the case description.

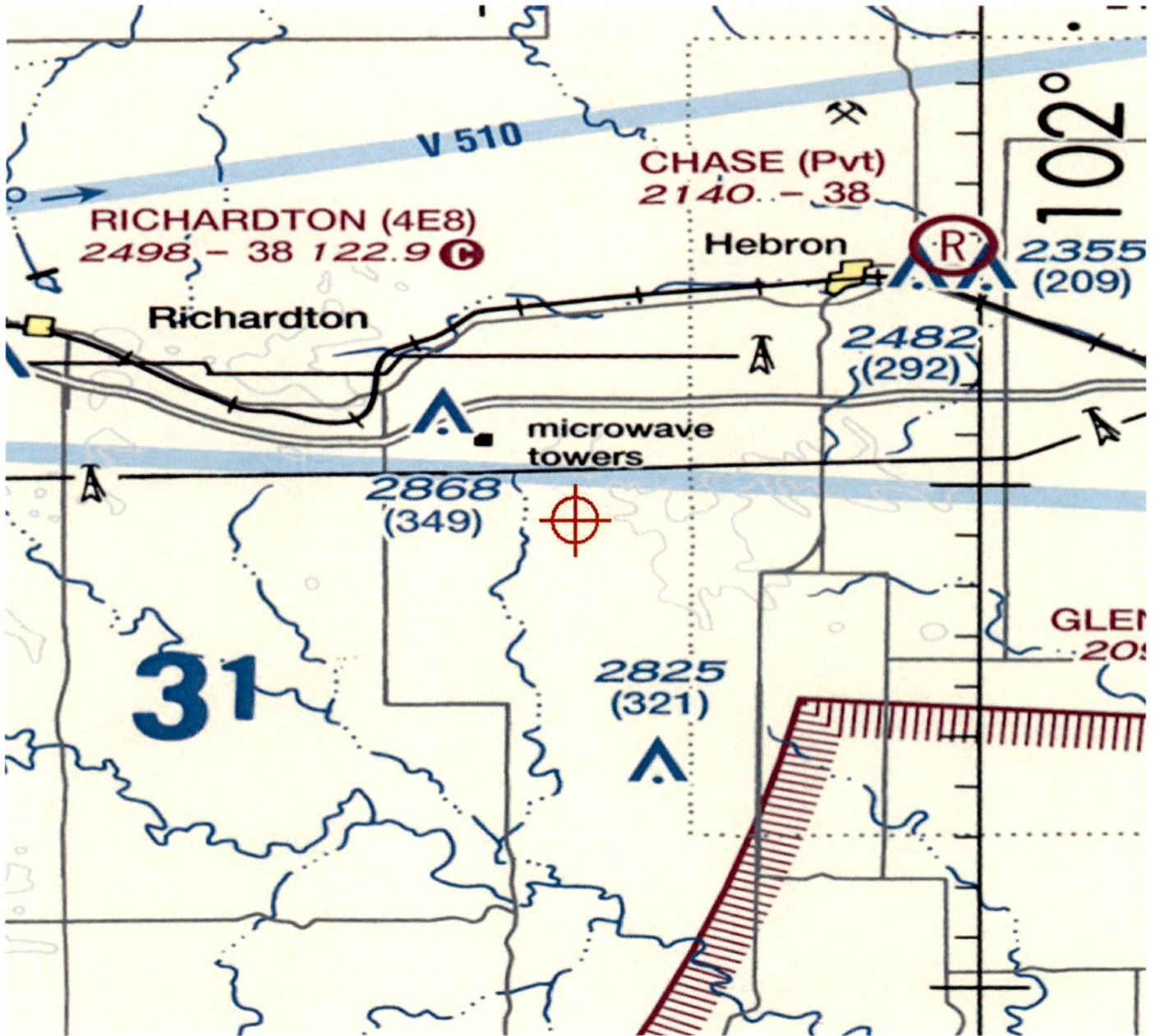
If we can be of further assistance, please contact our office at (816) 329-2523. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2016-WTE-6527-OE.

Signature Control No: 303816031-306319580
Steve Phillips
Specialist

(DNE -WT)

Attachment(s)
Map(s)

Sectional Map for ASN 2016-WTE-6527-





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

Aeronautical Study No.
2016-WTE-6546-OE
Prior Study No.
2014-WTE-5810-OE

Issued Date: 10/03/2016

Cindy Whitney
Solas Energy Consulting
430 North College Avenue, Suite 440
Fort Collins, CO 80524

**** 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 Wind Turbine 5
Location: Hebron, ND
Latitude: 46-49-46.06N NAD 83
Longitude: 102-06-54.84W
Heights: 2525 feet site elevation (SE)
426 feet above ground level (AGL)
2951 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 L, Obstruction Marking and Lighting, white paint only - Chapters 12&13(Turbines).

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.

This aeronautical study included evaluation of a structure that exists at this time. Action will be taken to ensure aeronautical charts are updated to reflect the most current coordinates, elevation and height as indicated in the case description.

If we can be of further assistance, please contact our office at (816) 329-2523. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2016-WTE-6546-OE.

Signature Control No: 304431124-306319734

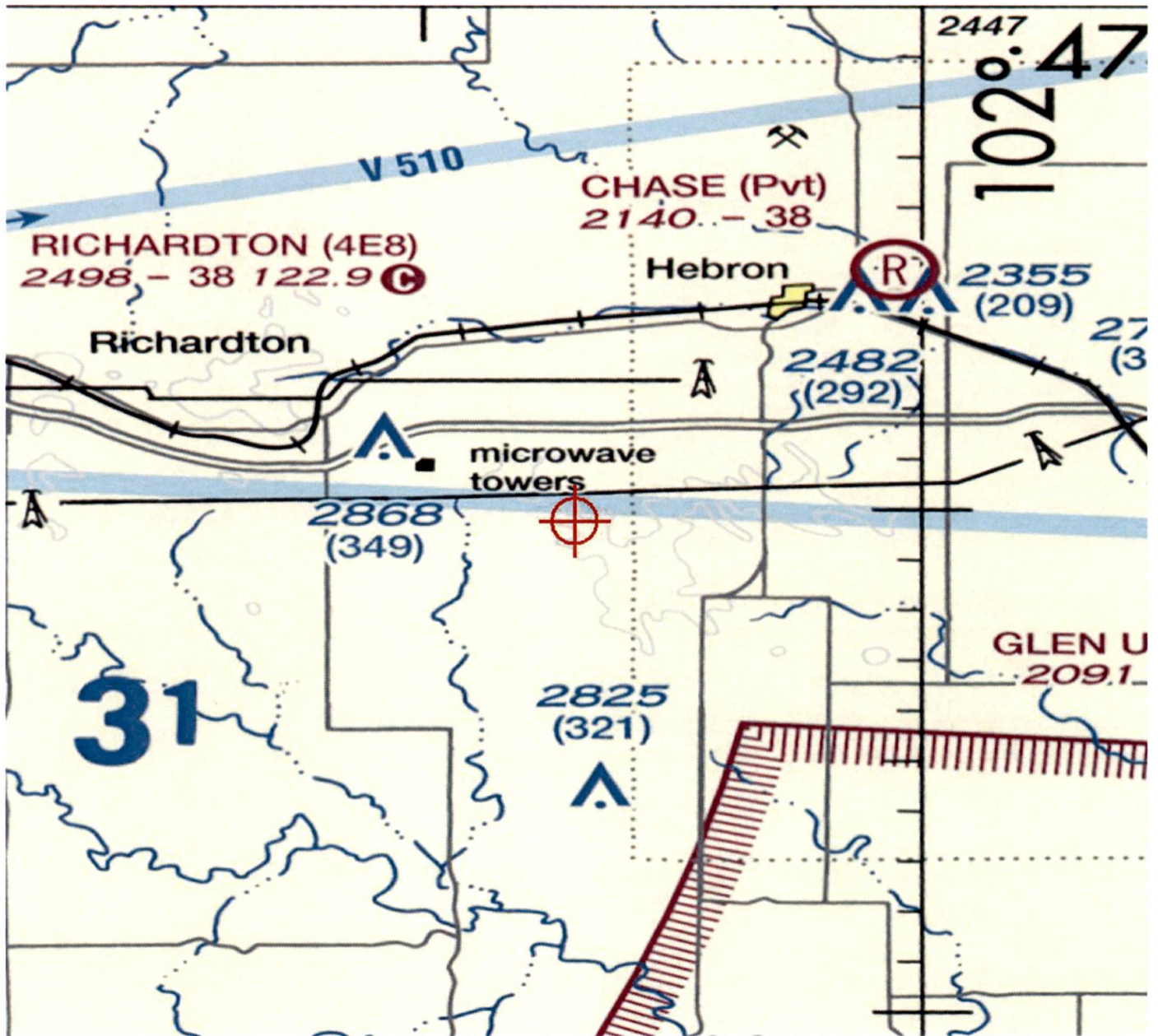
Steve Phillips
Specialist

(DNE -WT)

Attachment(s)

Map(s)

Sectional Map for ASN 2016-WTE-6546-





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

Aeronautical Study No.
2016-WTE-6561-OE
Prior Study No.
2014-WTE-5812-OE

Issued Date: 10/03/2016

Cindy Whitney
Solas Energy Consulting
430 North College Avenue, Suite 440
Fort Collins, CO 80524

**** 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 Wind Turbine 7
Location:	Hebron, ND
Latitude:	46-49-55.18N NAD 83
Longitude:	102-06-23.59W
Heights:	2470 feet site elevation (SE) 426 feet above ground level (AGL) 2896 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 L, Obstruction Marking and Lighting, white paint only - Chapters 12&13(Turbines).

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.

This aeronautical study included evaluation of a structure that exists at this time. Action will be taken to ensure aeronautical charts are updated to reflect the most current coordinates, elevation and height as indicated in the case description.

If we can be of further assistance, please contact our office at (816) 329-2523. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2016-WTE-6561-OE.

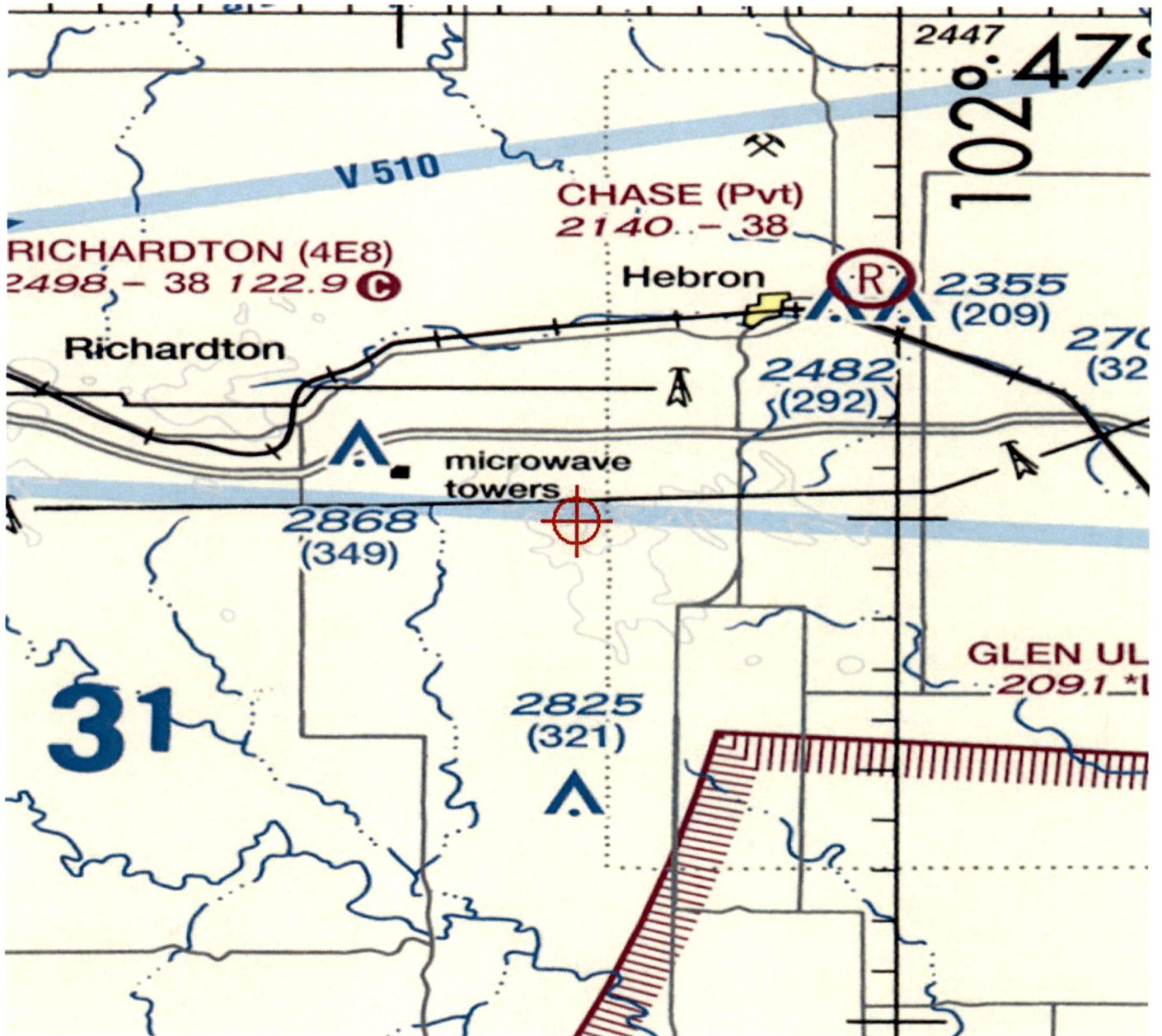
Signature Control No: 304608115-306319730

Steve Phillips
Specialist

(DNE -WT)

Attachment(s)
Map(s)

Sectional Map for ASN 2016-WTE-6561-OE





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

Aeronautical Study No.
2016-WTE-6657-OE
Prior Study No.
2014-WTE-5816-OE

Issued Date: 10/03/2016

Cindy Whitney
Solas Energy Consulting
430 North College Avenue, Suite 440
Fort Collins, CO 80524

**** 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 Wind Turbine 11
Location:	Hebron, ND
Latitude:	46-50-10.24N NAD 83
Longitude:	102-05-34.99W
Heights:	2478 feet site elevation (SE) 426 feet above ground level (AGL) 2904 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 L, Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

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.

This aeronautical study included evaluation of a structure that exists at this time. Action will be taken to ensure aeronautical charts are updated to reflect the most current coordinates, elevation and height as indicated in the case description.

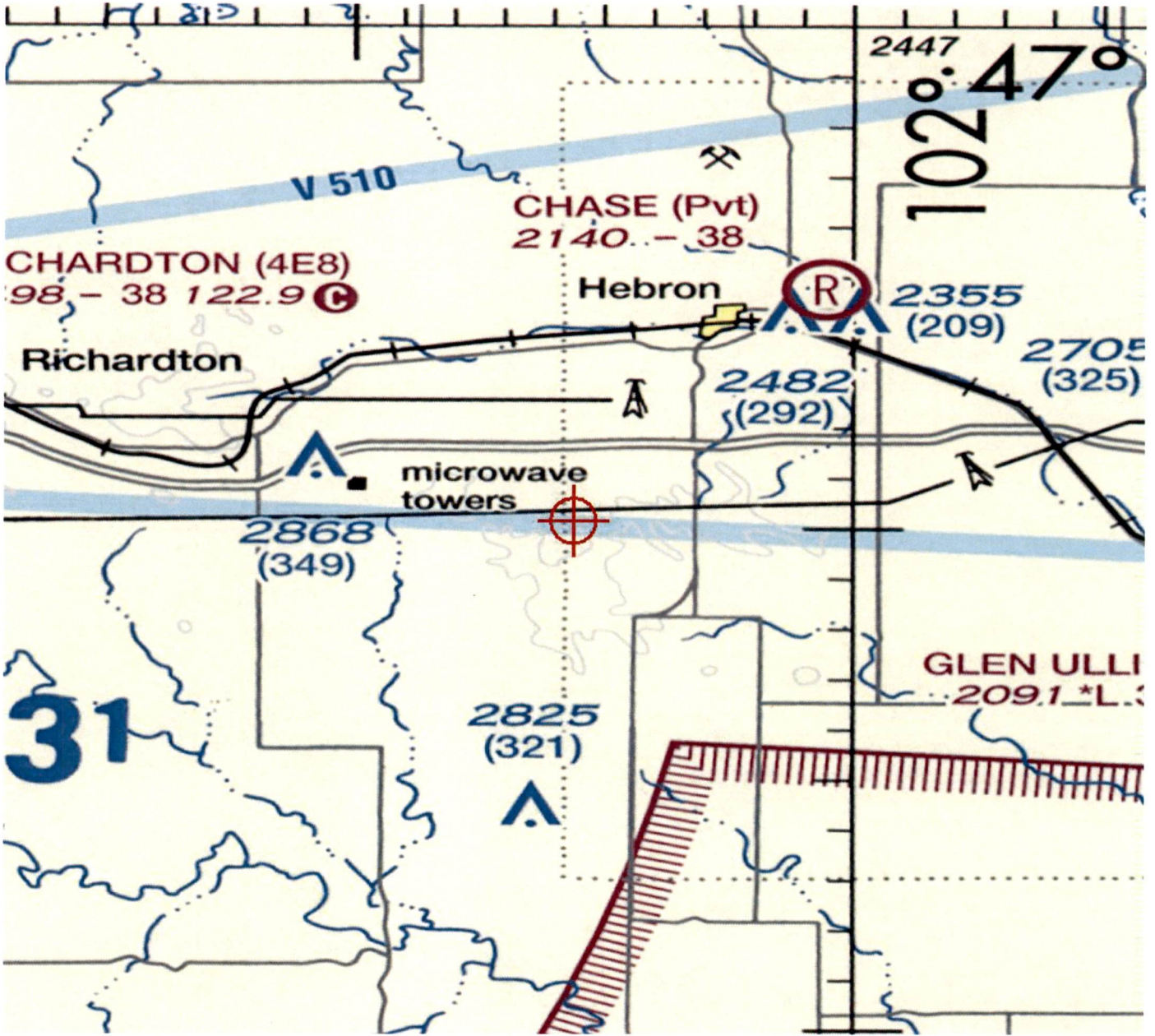
If we can be of further assistance, please contact our office at (816) 329-2523. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2016-WTE-6657-OE.

Signature Control No: 305008333-306319579
Steve Phillips
Specialist

(DNE -WT)

Attachment(s)
Map(s)

Sectional Map for ASN 2016-WTE-6657-OE





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

Aeronautical Study No.
2016-WTE-6706-OE
Prior Study No.
2014-WTE-5818-OE

Issued Date: 10/03/2016

Cindy Whitney
Solas Energy Consulting
430 North College Avenue, Suite 440
Fort Collins, CO 80524

**** 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 Wind Turbine 13
Location:	Hebron, ND
Latitude:	46-50-15.21N NAD 83
Longitude:	102-04-55.48W
Heights:	2498 feet site elevation (SE) 426 feet above ground level (AGL) 2924 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 L, Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

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.

This aeronautical study included evaluation of a structure that exists at this time. Action will be taken to ensure aeronautical charts are updated to reflect the most current coordinates, elevation and height as indicated in the case description.

If we can be of further assistance, please contact our office at (816) 329-2523. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2016-WTE-6706-OE.

Signature Control No: 305256491-306319574
Steve Phillips
Specialist

(DNE -WT)

Attachment(s)
Map(s)

Sectional Map for ASN 2016-WTE-6706-OE

