

ARTICLE XIII

WIND TURBINE REGULATIONS

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Section 1. PURPOSE

Middleton Township recognizes the importance of clean, sustainable and renewable energy sources. To that end, Middleton Township permits the use of residential wind turbines under the following regulations to ensure the safety and welfare of all township residents is met.

1. Protect residential and agricultural areas from potential adverse impact of wind turbine generators;
2. Permit wind turbine generators in selected areas by on-site residential, commercial, or industrial users, subject to the terms, conditions, and provisions hereof;
3. Ensure the public health, welfare, and safety of the Township's residents in connection with wind turbine generators; and
4. Avoid potential damage to real and personal property from the wind turbine generators or anemometer towers or the failure of such structures and related operations.

Section 2. DEFINITIONS

For purposes of the regulation of residential use of wind turbine generators. The following definitions and phrases are used in this article and are also defined in Article XVIII.

- Accessory Structures: Structures such as sheds, storage sheds, pool houses, unattached garages, and barns.
- Anemometer: An instrument that measures the force and direction of the wind.
- Clear Fall Zone: An area surrounding the wind turbine unit into which the turbine and/or turbine components might fall due to inclement weather, poor maintenance, faulty construction methods, or any other condition causing turbine failure that shall remain unobstructed and confined within the property lines of the primary parcel where the turbine is located at, the purpose being that if the turbine should fall or otherwise become damaged, the falling structure will be confined to the primary parcel and will not fall onto dwellings, any habitable structures, and will not intrude onto a neighboring property.
- Cowling: A streamlined removable metal that covers the turbine's nacelle.
- Decibel: A unit of relative loudness equal to ten times the common logarithm of the ratio of two readings. For sound, the decibel scale runs from zero for the least perceptible sound to 130 for sound that causes pain.
- Nacelle: A separate streamlined metal enclosure that covers the essential mechanical components of the turbine.
- Primary Structure. For each property, the structure that one or more persons occupy the majority of time, on that property, for either business or personal reasons. Primary structures include structures such as residences, commercial buildings, hospitals, and day care facilities. Primary structures exclude structures such as hunting sheds, storage sheds, pool houses, unattached garages, and barns.
- Professional Engineer. A qualified individual who is licensed as a Professional Engineer in the State of Ohio.
- Wind Power Turbine Owner. The person or persons who owns the Wind Turbine structure.
- Wind Power Turbine Tower. The support structure to which the turbine and rotor are attached.
- Wind Power Turbine Tower Height. The distance from the rotor blade at its highest point to the top surface of the Wind Power Generating Facility (WPGF) foundation.

Section 3. REGULATIONS

1. Wind turbines shall be a permitted use in all districts under the following conditions:
 - A. The maximum height of any turbine shall be 125' ft. For purposes of this particular zoning item, maximum height shall be considered the total height of the turbine system including the tower, and the maximum vertical height of the turbine's blades. Maximum height therefore shall be calculated by measuring the length of a prop at maximum vertical rotation to the base of the tower.
 - B. Setbacks: the following shall apply in regards to setbacks.
 1. Any turbine erected on a parcel of land will need to establish a "clear fall zone" from all neighboring property lines, as well as any habitable structures on the parcel intended for the turbine and any overhead utility lines. A turbine will need to be erected and placed in such a manner that if it were to fall, whatever direction the fall occurs would be contained solely on the property where the turbine is located at, and would not strike any structures including the primary dwelling, and any habitable structures.
 2. Clear Fall Zone shall be a minimum of turbine unit height x 1.1.
 3. Any turbine erected shall be erected behind the required front yard setback for each district.
 - C. Maintenance
 1. Wind turbines must be maintained in good working order. Turbines that become inoperable for more than 24 months must be removed by the owner within thirty (30) days of issuance of zoning violation. Removal includes removal of all apparatuses, supports, and or other hardware associated with the existing turbine.
 - D. Decibel Levels
 1. All units shall operate within a decibel range not to exceed 70 decibels. This information shall be included in the engineering report described below in Section II of this document. This information shall be obtained from the manufacturer of the turbine, and all decibel readings, if necessary, shall be taken from the nearest neighboring property. If testing of decibel readings becomes necessary, it will be done at Property owner's expense.
 - E. Wiring and electrical apparatuses:
 1. All wires and electrical apparatuses associated with the operation of a wind turbine unit shall be located underground.

Section 4. PERMITS

1. A permit shall be required before construction can commence on an individual wind turbine system.
2. As part of the permit process, the applicant shall inquire with the Wood County Planning Commission as to whether or not additional height restrictions are applicable due to the unit's location in relation to either the Wood County Airport, or Toledo Metcalf Field.
3. Applicant shall then provide the Township Zoning Inspector with the following items and or information when applying for a permit:
 - A. Location of all public and private airports in relation to the location of the turbine, as well as any applicable FAA restrictions that may be applicable to the turbine.
 - B. An engineering report that shows:
 1. The total size and height of the unit
 2. The total size and depth on the unit's concrete mounting pad,
 3. A list and or depiction of all safety measures that will be on the unit including anti-climb devices, grounding devices, and lightning protection,
 4. Data specifying the kilowatt size and generating capacity of the particular unit.
 5. The maximum decibel level of the particular unit. This information must be obtained from the manufacturer of the turbine unit.
 - C. A site drawing showing the location of the unit in relation to existing structures on the property, roads and other public right of ways, and neighboring properties.
 - D. Evidence of a "clear fall zone" with manufacturer's recommendations must be attached to the engineering report.
 - E. A maintenance schedule as well as a dismantling plan that outlines how the unit will be dismantled shall be required as part of the permit.