AGENDA
CONSERVATION, PLANNING, AND ZONING COMMITTEE
WOODFORD COUNTY, ILLINOIS
MONDAY, May 11, 2020
5:30 P.M.

NOTE – due to Covid 19, the C. P. & Z. Committee meeting will be held by teleconference. If you wish to attend, please contact Deb Breyman at (309) 467-7343 or wcco@woodford-county.org

1. Call to Order:

2. Roll Call:
   (*set time to adjourn)

3. Approval of Monthly claims:

4. Approval of March 9, 2020, minutes:

5. Public Input:

6. Unfinished Business:
   a) Inoperable Motor Vehicle ordinance Going to ZBA when hearing is allowed due to COVID-19

7. New Business:
   a) Minonk Wind Annual Report
   b) Panther Grove Wind Farm update

8. Planning and Zoning Issues:
   a) Smith Subdivision Plat approval

10. Adjournment
2019 Annual Inspection Report

Minonk Wind Farm

2856 County Road 2000N
Minonk, IL

Report Date: 2/27/2020
Summary

In accordance with the Minonk Wind Special Use Permit dated July 20th 2010, Algonquin Power Co. (APCo) is required to submit an annual inspection report to the Woodford and Livingston County Zoning Enforcement Officers to certify that the Minonk Wind Farm is in good working condition and not a hazard to the general public and/or participating landowners of the project.

The Minonk Wind Farm consists of 100 Gamesa G90 wind turbines located in both Woodford and Livingston Counties. Each unit is connected through a series of underground cables which all lead back to the site’s substation located beside the main office just off County Road 2000N. Although the site is owned by Algonquin Power Co., Siemens Gamesa Renewable Energy (formally Gamesa Wind US) performs all maintenance and troubleshooting tasks throughout the wind farm with daily oversight provided by APCo.

Wind Turbines

Blades:

During the spring/summer storm season it is not uncommon for a wind turbine or wind turbine blade to be struck by lightning. Each wind turbine is equipped with a Lightning Protection System (LPS) which provides a path to ground for the lightning strike. Effective July 4th 2014 as a proactive and precautionary measure, Algonquin Power Co. performed inspections within 72 hours on any turbine(s) that may have been struck by lightning during a lightning storm. We utilize a Cannon T3i camera with 500mm lens to perform these inspections, which allows us to determine if the blade or turbine sustained any damage.

In 2019 a complete site blade inspection via drone was completed through March and April by Skyspecs drone blade inspection technicians. All reports were reviewed by the Siemens Gamesa Blade Engineering Department and these inspections led to proactive repairs of 7 turbines and 2 turbine blade replacements. If damage is noted that could be considered hazardous to the public, landowners, employees, or the Wind Turbine Generator (WTG), the affected turbine would be immediately removed from service until adequate evaluation and repairs are able to be performed. Otherwise, any damage noted by APCo personnel is sent to Siemens Gamesa blade engineers for further evaluation and repair recommendations.

Major/Minor Maintenances:

As the turbine supplier and maintenance contractor, Siemens Gamesa has outlined an annual (major) and semi-annual (minor) maintenance plan for each WTG. This means that every 6 months a team of maintenance personnel visit each turbine to perform either the major or minor maintenance which consists of the following: various electrical checks, cleaning, torque/tension checks of all bolts,
lubrication checks/replacement, visual checks throughout the WTG, oil samples, air filter changes, oil filter changes, clearance inspections etc.

Minor Maintenances were performed between January 2019 and July 2019. Major Maintenances were performed between July 2019 and December 2019. During the 2019 maintenances there were no deficiencies found that would be considered a hazard to the public, landowners, employees, or facilities.

**Foundation Bolt Inspection/Maintenance:**

In 2019 Siemens Gamesa performed a visual and mechanical inspection on all WTG foundation base bolts which is separate from the Annual and Semi-Annual maintenances outlined above. This inspection was to help ensure proper anchoring of the WTG to the concrete foundation.

The inspection consisted of performing a 10% tension check at 90% post tension value on all 100 WTGs. The inspections took place over the course of one week during September 23rd through 24th. There were no anomalies noted during the inspection.

**Substation**

**Monthly Inspection:**

Each week Siemens Gamesa performs a visual inspection on a number of components located within the substation and substation control house. These monthly visual inspections survey for the following conditions: cracking on any electrical components, electrical arcing, rodent entry and/or nests, bulging of capacitors and transformers, oil levels, gas pressures, lighting checks, breaker positions, static line sagging, fences/gates, locks on all equipment, warning/danger/High Voltage signage, etc. Also, during these monthly inspections all fire extinguishers, eye wash stations, First Aid Kits, the tornado shelter and AEDs in the substation and operations building/office are inspected.

During these monthly inspections there were no abnormal issues found that would pose a hazard to the public, landowners, employees, or facilities.

**Annual Inspection/Maintenance:**

The annual substation inspection and maintenance is a much more detailed inspection than the standard monthly inspections outlined above. In addition to the items inspected during the monthly inspections, Siemens Gamesa also performs the following on an annual basis: cleaning behind breakers/panels, oil samples and analysis, infrared scans, downloading/analyzing protective relay data, load tap changer testing/functionality, backup power for control house and protective relays, rodent entry repair behind protective relays (as required), and HMI functionality testing.

The annual substation inspection occurred over a span of 2 days, September 23rd through 24th, while the Infrared scan occurred on September 13, 2019. There were no deficiencies noted from either
the annual substation inspection or the infrared scanning that would pose a hazard to the public, landowners, employees, or facilities.

**Environmental**

**Tier II Reporting:**

The Minonk Wind Farm is required to submit annual Tier II Chemical Inventories to each respective county (Woodford County and Livingston County) pursuant to Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) Section 312. The purpose of this report is to provide State and local officials and the public with information on the general hazard types and locations of hazardous chemicals present at the Minonk Wind Farm during the previous calendar year.

The Tier II Chemical Inventory for Woodford County can be found in “Exhibit A” of this report. The Tier II Chemical Inventory for Livingston County can be found in “Exhibit B” of this report.

**Emergency Drills**

**Facility Drills:**

Minonk Wind Farm Personnel participate in annual drills consisting of fire, tornado, and spill drills. All drills were completed in a timely fashion with the correct procedures followed. The SPCC Plan (Spill Prevention, Control, and, Countermeasure Plan) is reviewed annually with site personnel to ensure all employees are trained in the handling of spills to minimize impact to the environment.

**Joint Substation Walkthrough:**

In September 2019 the Minonk Wind Farm performed a substation walkthrough with emergency services from Livingston and Woodford Counties a total of 21 people participated. Site Substation personnel along with Volunteer Firefighters from Minonk and Flanagan arranged a substation walkthrough during an outage to go over equipment, how the substation functioned, and isolation points. The drills duration was just under one hour. After the conclusion of the Substation walkthrough the participants of the drill reconvened at the operations building where we toured the site facilities to gain familiarity with the site and associated hazard. This was a successful drill giving everyone a visual of the substation and equipment within to see what types of challenges and scenarios and hazards could be encountered in the event of an emergency.