Exhibit G

Materials Analysis

Nolin Hills Wind Power Project
January 2022

Prepared for

Capital Power
RESPONSIBLE ENERGY FOR TOMORROW

d/b/a Nolin Hills Wind, LLC

Prepared by

TETRA TECH

Tetra Tech, Inc.

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Acronyms and Abbreviations

Applicant	Nolin Hills Wind, LLC
BESS	battery energy storage system
CFR	Code of Federal Regulations
EPA	U.S. Environmental Protection Agency
GE	General Electric
kV	kilovolt
met tower	meteorological tower
MW	megawatt
O&M	operations and maintenance
Project	Nolin Hills Wind Power Project
SPCC	Spill Prevention, Control, and Countermeasure
UPS	uninterruptible power supply
USDOT	U.S. Department of Transportation

1.0 Introduction

Exhibit G provides an analysis of construction materials for the Nolin Hills Wind Power Project (Project), as required to meet the submittal requirements of Oregon Administrative Rule (OAR) 345-021-0010(1)(g) paragraphs (A) through (C). OAR 345 Division 22 does not provide an approval standard specific to Exhibit G.

2.0 Materials Inventory – OAR 345-021-0010(1)(g)(A)

OAR 345-021-0010(1)(g) A materials analysis including:

OAR 345-021-0010(1)(g)(A) An inventory of substantial quantities of industrial materials flowing into and out of the proposed facility during construction and operation;

2.1 Construction Materials Inventory

The primary raw materials needed for construction of the Project are rock, gravel, sand, water, cement, and steel rebar. Substantial amounts of steel reinforcing bar and concrete are required for foundations (e.g., wind turbines, substations, Operations and Maintenance [O&M] Building, solar array tracking, battery container slabs); making concrete requires gravel, sand, water and cement. Rock and aggregate materials will also be needed for access road construction and for other permanent and temporary gravel-surfaced areas. Aggregate suppliers in the vicinity of the Project will be determined by the construction contractor. Additional materials include the turbine and meteorological tower (met tower) components, solar array components, battery system components, substations and other electrical equipment, conductor wires, fiber optic communications cables, transmission line support poles for the transmission line, and insulators and connecting hardware.

The following items were considered when developing this materials inventory:

- Steel and concrete for turbine foundations;
- Solar array, including the modules, racking system, posts, cabling, and inverters and transformers;
- Battery energy storage system (BESS);
- Conductor wires;
- Insulators and hardware;
- Fiber optic communications lines;
- Two meteorological towers;
- Substation steel structures and foundations;

- O&M Building and foundation;
- Access road construction; and
- Surface materials for substation, O&M Building, and temporary construction yards.

Volumes of water are discussed in Exhibit O.

Most construction materials will enter the Project area via one of the construction yards. The locations of the construction yards are shown in Exhibit C, Figure C-4.16. Some materials, particularly turbine components and solar components, will be delivered directly to the location at which they will be used. Material quantities evaluated in this exhibit are conservative estimates of the greatest quantities expected.

Table G-1 provides an inventory of industrial materials that will be used within the Project area in substantial quantities during construction.

Table G-1. Inventory of Construction Materials

Material	Quantity/Units	Ultimate Disposition
Aggregate (rock/gravel)	312,889 cubic yards for up to approximately 80 miles of private access road (approximately 61 miles of new road, and 19 miles of existing road improvement). 87,534 cubic yards for approximately 65 acres of graveled areas associated with the O&M Building, substations, BESS, and construction yards and laydown areas.	Maintained as on-site roadbed or graveled area associated with the O&M Building, substations, and BESS.
Concrete in cubic yards per turbine foundation (590 cubic yards per GE 3.03-MW turbine)	Per turbine foundation: • 540 tons of aggregate; • 315 tons of sand; • 160 tons of Portland cement; • 50 tons of steel reinforcing bar; and • 18,000 gallons of water.	Incorporated into turbine tower foundations.
Concrete for substation foundations (392 cubic yards)	Per foundation: • 325 tons of aggregate; • 240 tons of sand; • 100 tons of Portland cement; • 35 tons of steel reinforcing bar; and • 12,000 gallons of water.	Incorporated into the substation foundations.
Concrete for O&M Building foundation (320 cubic yards)	• 270 tons of aggregate; • 200 tons of sand; • 85 tons of Portland cement; • 27 tons of steel reinforcing bar; and • 10,000 gallons of water.	Incorporated into the O&M Building foundation.

Material	Quantity/Units	Ultimate Disposition
Concrete for BESS container foundations (2,136 yd^3 [8.9 yd^3 per pad; 240 pads])	• 1,800 tons of aggregate; • 1,340 tons of sand; • 570 tons of Portland cement; • 180 tons of steel reinforcing bar; and • 65,000 gallons of water.	Incorporated into BESS foundations
Concrete for solar array racking posts (24,900 yd^3 [0.3 yd^3 per racking post])	• 21,000 tons of aggregate • 15,600 tons of sand; • 6,600 tons of Portland cement; and • 77,000 gallons of water	Incorporated into racking post foundations
Concrete for solar array inverter/transformer foundations (160 yd^3 [98 foundations])	• 136 tons of aggregate; • 100 tons of sand; • 43 tons of Portland cement; • 86 tons of steel reinforcing bar; and • 5,120 gallons of water.	Incorporated into inverters/transformers foundations
Wind turbine components	Up to 112 turbines, each comprising approximately: • 121 tons of steel; • 121 tons of iron; • 49 tons of fiberglass/carbon fiber; and • 20 tons of other material.	Incorporated into turbine towers, nacelles, and other internal components
Meteorological (met) towers	Up to 3 units; approximately 8 tons of steel per met tower.	Aboveground structure
Solar modules / racks	816,812 modules / 21,495 racks	Throughout each solar module string
Steel solar module rack posts	83,080 posts, 6,231 tons steel (150 pounds per post)	Throughout each solar module string
Steel battery containers	240 containers (lithium-ion BESS) 12 containers (flow BESS)	BESS
Lithium-ion battery racks	1,440 racks (6 racks per container)	Inside steel battery containers
Combiner boxes	41,393 boxes	Aboveground throughout solar array
Inverters/transformers	98 stations	Aboveground throughout solar array
Fencing	90,963 feet (17.2 miles)	Will remain around solar area
34.5-kilovolt (kV) electrical collector lines/conductor cable (overhead)[1/]	Up to approximately 9.1 miles of conductor cable (wind). Up to approximately 5.5 miles of conductor cable (solar).	Aboveground structure
34.5-kV electrical collector lines/conductor cable (underground)	Up to approximately 239 miles of conductor cable (wind). Up to approximately 144 miles of conductor cable (solar).	Buried underground[1]

Material	Quantity/Units	Ultimate Disposition
34.5-kV electrical collector poles	Up to approximately 347 structures, single-pole wood.	Aboveground structures
230-kV transmission line	Up to approximately 25.3 miles of conductor cable (Cottonwood Route). Up to approximately 6.8 miles of conductor cable (between substations).	Aboveground structure
230-kV transmission line structures	Up to approximately 283 monopole structures (60 structures between substations; 223 structures for Cottonwood Route). Up to 60 structures that may be either H-frames or monopoles, likely wood or steel.	Aboveground structures
Fiber optic and copper communication lines	Up to approximately 153 miles of fiber optic cable.	Strung or buried with collector lines
Generator step-up (GSU) electrical transformers	Up to 112 GSU transformers.	Mounted on concrete pad adjacent to turbine tower
Substation transformers	Up to 2 transformers, the largest of which would be 300 megavolt amperes.	Within substation footprint
O&M Building	One O&M building approximately 6,000 square feet.	Aboveground structure and graveled parking area
1. The Applicant does not anticipate having to run the 34.5-kV electrical collection system aboveground. However, should site conditions present a situation where burying the electrical collection is infeasible, up to approximately 14.6 miles of the electrical collection system may be run aboveground. See Exhibit B for additional description of the 34.5-kV collection system.		

2.2 Operational Materials Inventory

Industrial materials will be stored on the Project during operations. Up to two 55-gallon drums each of hydraulic oil and gearbox oil may be kept on site for periodic maintenance activities; these would be stored within the O&M Building. Lubricating and dielectric mineral oils and antifreeze solutions will be present at the Project, and will be fully contained within the turbines and electrical transformers. Transformer dielectric oils are not normally replaced. Lubricating oils and antifreeze are drained and replaced periodically; new oil will be brought in on an as-needed basis and the old oil removed for recycling. These maintenance activities will utilize specialized vehicles and equipment designed to prevent spills. If heavy equipment is necessary for major maintenance issues, such as the replacement of a turbine gearbox or generator, its use would be similar to the construction stage. Fuel or oils needed for maintenance will be delivered by a licensed maintenance contractor on an as-needed basis, and no substantial quantities will be stored on site. As described in Exhibit B, during operations, chemical storage will include up to two lead-acid batteries in the control room within the O&M Building as a backup uninterruptible power supply (UPS) system. In addition, up to sixty 300-amp-hour lead-acid batteries in sealed containers and held in a wall rack will be located inside the substation power control building, for a total of up to 120 lead-acid

batteries. These batteries will be used as the main source of station service to operate all substation equipment. The final number and size of batteries will be determined during final design.

It is possible that major turbine, solar module, or electrical components may need to be replaced during the lifetime of the Project. Major maintenance issues may require the replacement of turbine gearboxes, generators, blades, or other components or the replacement of solar modules; however, due to the unpredictable nature of major maintenance problems, no estimate has been provided for the amount of major components that may be needed. Minor maintenance may also require the replacement and removal of smaller components, which are not expected to constitute substantial amounts of industrial materials. Minor and potentially hazardous materials could include oily rags or similar materials related to turbine lubrication and other maintenance.

Small quantities of lubricating and dielectric oils, cleaners, antifreeze, or herbicides and pesticides may be stored in the O&M Building for use during Project operations. None will be present in substantial reportable quantities; the amounts present (if any) will be no greater than household quantities.

Solar modules may require periodic washing to minimize the effects of solar module dust and dirt on energy production (referred to as soiling). For the purpose of this analysis, it is assumed that all modules will be washed once per year and require one gallon per solar module, for a total of approximately 1,120,000 gallons per year. Water will be applied via robotic panel cleaners and will not have any cleaning solvents in it. Washwater will be discharged by evaporation and seepage into the ground. See Exhibit O for further information.

For the BESS, a lithium-ion system will require regular change out of batteries, as they degrade over time, whereas a flow battery system will need infrequent maintenance.

If a lithium-ion system is used, the batteries will be replenished at a rate depending on usage. For example, a battery that is cycled more often will degrade faster than one that is used less often. For this analysis, it is assumed that the battery will be fully discharged each day and that all batteries will need to be replaced every 10 years, or three times over the life of the Project (30 years). This assumption likely overestimates the number of batteries that will be replaced over the life of the Project, because not all batteries will be replaced during each replenishment cycle (e.g., fewer batteries will need replacing early in the Project life). A group of lithium-ion battery cells will comprise a "rack." Approximately 1,440 battery racks will be needed for the 120-MW storage system.

Lithium-ion battery systems typically are air cooled, and do not have a liquid component. However, some lithium-ion battery systems are liquid cooled, such as the Tesla Powerpack, which uses coolant similar to automotive antifreeze. The coolant, if used, is recirculated through a closed system to cool the batteries.

If a flow battery system is used, it will require infrequent replacement of the electrolyte solutions because there is negligible degradation of the battery (i.e., electrolyte solutions) over time. This analysis assumes an energy density of 25 watt-hours per liter for a total flow BESS of 600 million

watt-hours, which translates to 24 million liters, or approximately 6.3 million gallons of electrolyte solution on site over the life of the Project (30 years).

Table G-2 provides an inventory of industrial materials to be used within the Project area during operations.

Table G-2. Inventory of Operational Materials

Material	Quantity/Units	Ultimate Disposition
Mineral oils (turbine lubricant and transformer coolant)	348 gallons (3 gallons per turbine) per year.	Full oil change done as-needed by a specialized contractor and used oils removed for recycling.
Synthetic oils (turbine lubricant, gear oil)	1,116 gallons (10 gallons per turbine) per year.	Full oil change done as-needed by a specialized contractor and used oils removed for recycling.
Lead-acid batteries	122 batteries (300-amp hour)	Up to 2 batteries within secondary containment inside the control room within the O&M Building. Up to 120 batteries in sealed containers in the power and control building at the substations.
Lithium-ion batteries	2,640 batteries	Disposed of at approved facility.
Electrolyte solution (flow batteries)	6.3 million gallons	Disposed of at approved facility.
Transformer oil	Substation transformers: 28,000 gallons (14,000 gallons each) Solar array transformers: 49,000 gallons (500 gallons per station)	Within transformer boxes for cooling. (No extra oil stored outside of transformers. Additional oil only required due to failure, provided on an as-needed basis.)
Simple Green (general cleaner)	348 gallons (3 gallons per turbine) per year.	Up to 5 gallons stored in O&M Building for minor maintenance.
WD-40; grease (general lubricant)	580 gallons (5 gallons per turbine) per two years.	Up to 55 gallons stored in O&M Building for minor maintenance.
Ethylene glycol (anti-freeze)	348 gallons (3 gallons per turbine) per year.	Up to 55 gallons stored in O&M Building for minor maintenance.
Round-up and 2,4-D (weed control)	2 gallons for spot weed control; subcontract out for major weed control per year.	Up to 2 gallons stored in O&M Building.

3.0 Hazardous Materials Handling and Management – OAR 345-021-0010(1)(g)(B)

OAR 345-021-0010(1)(g)(B) The applicant's plans to manage hazardous substances during construction and operation, including measures to prevent and contain spills;

3.1 Construction Materials

Hazardous materials that will be used at the Project include fuels, lubricating oils, cleaners, and pesticides, as shown in Tables G-1 and G-2. These materials will be used primarily during operations but potentially during construction as well.

During construction of the Project, small quantities of a few hazardous materials may be utilized or stored in the construction yards. Such materials may include cleaners, insecticides or herbicides, paint, or solvents. None will be present in substantial, reportable quantities[1]; the amounts present (if any) will be no greater than household quantities[2] of up to a few gallons each. When not in use these would be stored in a secure location within the construction yards.

Fuels will be the only hazardous material that may be stored in substantial quantities on site during construction; the Applicant anticipates that up to 500 gallons of diesel fuel and 200 gallons of gasoline may be kept on site for fueling of construction equipment. These will both be stored in temporary above-ground tanks in the construction yard(s), within an area that provides for secondary containment. Most fuel will be delivered to the construction yard by a licensed specialized tanker vehicle on an as-needed basis. There will be no substantial quantities of lubricating oils, hydraulic fluid for construction equipment, or other hazardous materials maintained on site during construction. Lubricating oil or hydraulic fluids for construction equipment would similarly be brought in on an as-needed basis for equipment maintenance by a licensed contractor using a specialized vehicle, and waste oils removed by the same maintenance contractor. Hydraulic oils for the turbines and dielectric oils for the transformers will similarly arrive on an as-needed basis and be transferred into the receiving components; none will be stored on site.

Hazardous materials will be used in a manner that is protective of human health and the environment and will comply with all applicable local, state, and federal environmental laws and regulations. Due to the potential quantities of hazardous materials that may be present during construction, the construction contractor will be required to develop a Spill Prevention, Control, and Countermeasures (SPCC) Plan prior to beginning construction of the Project.

A Draft SPCC Plan is presented in Attachment G-1. Prior to construction, the Applicant will submit a final SPCC Plan to ODEQ for approval, which will be updated to include operational measures related to wind turbine pad mount transformers similar to those identified in the example SPCC plan from a different facility operated by the Applicant (Attachment G-2). The SPCC Plan would apply during construction and operation and outlines preventative measures and practices to reduce the likelihood of an accidental release of a hazardous or regulated liquid and, in the event such a release occurs, to expedite the response to and remediation of the release. At no time will

[1] "Reportable quantity" refers to the amount of hazardous substance that has to be released into the environment before the EPA requires notification of the release to the National Response Center pursuant to the Comprehensive Environmental Release, Compensation, and Liability Act, also known as Superfund. These numerical designations are listed under 49 CFR 172.101 Appendix A, Table 1 and Table 2.
[2] "Household quantity" refers to container sizes designed for consumer use, which are sized such that each container would hold less than a reportable quantity of any constituent hazardous chemical.

hazardous or regulated fluids be stored for use on-site either during construction or afterwards during operation of the substation.

Accidental releases of hazardous materials will be prevented or minimized through proper containment of these substances during use and transportation to the Project site, and observance of appropriate handling procedures during transfer from the delivery vehicle to the equipment being filled.

Equipment oil-filling, fueling, or maintenance activities will take place a substantial distance from waterways or wetlands to prevent water quality impacts in the event of an accidental release. Any oily waste, rags, or dirty or hazardous solid waste will be collected in sealable drums at the construction yards, to be removed for recycling or disposal by a licensed contractor.

In the unlikely event of an accidental hazardous materials release, any spill or release will be cleaned up and the contaminated soil or other materials disposed of and treated according to applicable regulations. See Exhibit CC for a listing of applicable regulations. Spill kits containing items such as absorbent pads will be located on equipment and in on site temporary storage facilities to respond to accidental spills, if any were to occur. Employees handling hazardous materials will be instructed in the proper handling and storage of these materials, as well as to the locations of spill kits.

The following list provides a summary of typical measures that will be implemented during Project construction to ensure safe handling, transport, use and disposal of hazardous materials:

- The general contractor will be responsible for preparing an SPCC Plan prior to the start of construction and maintaining the program through the duration of construction activities. The SPCC Plan will be revised for the operational period of the Project.

Preventative Procedures to Avoid Spills

- Chemical Storage: All hazardous chemicals will be stored in a manner that provides secondary containment. This will be accomplished via double-wall containers, lined ground storage sites including dikes and berms, or other vessels. Chemical storage areas will be located at least 100 feet from the edge of perennial and intermittent streams and wetlands.
- Chemical Transfer: When space provides, hazardous chemical transfer will occur within the secondary containment. In the event this is not possible, sorbent pads or materials will be strategically placed at the transfer point to capture any possible leak. Transfer of materials from large to small containers will be performed using appropriate equipment, including pumps, hoses, and safety equipment; hand pouring techniques will not be utilized.
- Transportation: Procedures for loading and transporting fuels and other hazardous materials will meet the minimum requirements established by the U.S. Department of Transportation (USDOT) and the Oregon Department of Transportation and other pertinent regulations. At all times, all hazardous materials used for the Project will be properly stored in approved USDOT containers and labeled, including during transportation. Smaller

containers will be used on site to transport needed amounts of hazardous materials to a specific location.

- Fueling and Servicing: Construction vehicles (trucks, bulldozers, etc.) and equipment (pumps, generators, etc.) will be fueled and serviced in designated areas at least 300 feet from flowing streams wetlands and other water bodies (e.g., lakes ponds, reservoirs). Refueling locations should be flat to minimize the chance of a spilled substance reaching a stream. Fuel/service vehicles will carry a suitable absorbent material to collect approximately 20 gallons of spilled materials.
- Training and Education: All site personnel will be informed of the various hazardous chemicals stored on site. Training and education will include information on the proper handling, use, storage, and cleanup of hazardous chemicals found on site.

Clean-up Procedures

- In the event of a leak or spill of a hazardous substance, the Chemical Safety Supervisor is to be immediately notified. He/she will be notified immediately following emergency mitigation / containment activities.
- All spills exceeding established U.S. Environmental Protection Agency (EPA) reportable quantities will be reported to both the Oregon State Emergency Spill Hotline and to the National Response Center. EPA reportable quantities can be found in 40 Code of Federal Regulations (CFR) 302.2, Designation, Reportable Quantities and Notification. Links to the reporting requirements can be found at www.epa.gov/ceppo/pubs/title3.pdf.
- Sorbent pads will be stocked on site to mitigate spills and leaks. In the event that a piece of equipment cannot be moved or immediately taken out of service, sorbent pads will be used to collect fluids and prevent the pollution of surrounding soil. This operation, should it arise, will be personally monitored by the project Superintendent and project Safety Coordinator.
- Soil cleanup will occur using designated and appropriately labeled barrels to contain any excavated contaminated soil. Cleanup will include a significant margin to ensure that all contaminants have been removed from the area.
- Equipment that is found to be the source of any leak or spill will be repaired immediately if possible. If immediate repair is not possible, the spill or leak will be contained and controlled using any approved and necessary means. Leaking equipment once removed from service will not be allowed to return to service until repairs have been made and demonstrated.

Storage Procedures

- Storage and containment of all chemicals and combustibles on site will be accomplished in compliance with all local, state, and federal regulations. All chemicals and combustibles will be stored in properly labeled and approved containers.

- Flammable storage cabinets will be obtained as necessary. Flammable and combustible liquids will be stored 25 feet from other construction operations. Material Safety Data Sheets for all materials on site will be available in the project Superintendent's office.
- Paint used on site will be stored per local, state, federal, and manufacturer requirements.
- Fuel tanks will be designed with double containment system protection.
- Portable gas cans shall be stored in designated areas that are protected with a secondary containment to avoid leakage or spillage onto the soil. A standard cattle trough is a good example of a secondary containment protection that can be easily installed.
- Compressed gas cylinders will be secured when in use and when stored will require a minimum 20-foot separation between oxygen and acetylene cylinders.

Spill Reporting Procedures

In the event of a spill involving a hazardous material the following procedure shall be implemented:

1. Notify the site Project Manager.
2. Notify the site Safety Engineer.
3. In the event the spill exceeds 10 gallons, notify the Operating Group Vice President and Safety Director.
4. Consult the reporting limits for the specific material spilled by reviewing the EPA Office of Chemical Emergency Preparedness Document 550-B-01-003, available online at: www.epa.gov/ceppo/pubs/title3.pdf. In the event the spill meets the reporting limits as established by EPA Document 550-B-01-003, follow the prescribed reporting procedure by calling the National Response Center at 1.800.424.8802.
5. Consult the reporting requirements for Oregon, and follow the prescribed reporting procedure.

3.2 Operational Materials

During operations, there will be no substantial quantities of fuels, oils, or chemicals on site, except as contained in qualified oil-filled equipment, including the turbine gearboxes, substation transformers, and inverter station transformers within the solar array, and the sulfuric acid contained in the lead-acid batteries. Lubricating oil (5 gallons per turbine per year) will be brought in as needed for periodic oil changes in the turbine gearboxes by a maintenance contractor using a specialized vehicle, and waste oils will be removed in the same way. Small quantities of gear oil will likely be maintained on site for occasional top-offs; it is anticipated that less than 10 gallons will be stored in the O&M Building at any given time. A full gear oil change will be done as-needed by a specialized contractor and used oils will be removed for recycling. Small quantities (2 to 3 gallons) of pesticides or herbicides, paint, solvents, or cleaners may also be kept on site; when not in use, these will be stored in the O&M Building. Given the nature of the materials, no secondary

containment systems are planned for the O&M Building for these materials. However, sorbent materials will be maintained on site to capture any small spills that may occur.

As described above and in Exhibit B, chemical storage will include up to two lead-acid batteries in the control room within the O&M Building. In addition, up to sixty 300 amp-hour lead-acid batteries in sealed containers will be held in a wall rack located inside both the northern and southern substation power control buildings, for a total of up to 120 lead-acid batteries. These batteries will be used as the main source of station service to operate all substation equipment. The final number and size of batteries will be determined during final design. Each battery contains sulfuric acid within its maintenance-free sealed leakproof exterior. A battery rack system will be used for holding multiple batteries. Each battery is factory sealed; however, further included is a liner-equipped containment system connected to each battery rack. The containment system will be capable of retaining 110 percent of fluid from the largest battery. In addition to the liner-equipped containment system, the batteries are installed within the substation's power and control building, which would further prevent any leaks from being released to the environment. Sulfuric acid is considered an extremely hazardous material by the EPA under 40 CFR §355. As required by regulation, secondary containment will be employed, and the Applicant will include sulfuric acid as part of its annual Emergency Planning and Community Right-to-Know Act report to local emergency responders. The batteries will be replaced at least every 5 years, if not earlier, as indicated by UPS system controls. Replacement of batteries will be handled by a qualified contractor and adhere to applicable regulations for transport and disposal, including but not limited to 49 CFR §173.159.

Secondary containment is optional for the transformers and for the turbine gearboxes, as these are classified as qualified oil-filled operational equipment under the EPA's Amended Spill Prevention, Control, and Countermeasure Rule issued in 2006 (EPA-550-F-06-008). Per this amended rule, instead of providing secondary containment for qualified oil-filled operational equipment, an owner or operator may prepare an oil spill contingency plan and a written commitment of manpower, equipment, and materials to quickly control and remove discharged oil; the plan must include an inspection or monitoring program for the equipment to detect a failure and/or discharge. Alternatively, the transformers may be installed on foundations that provide secondary containment, or sorbent materials may be kept on-hand to capture minor leaks. The Applicant plans to install secondary containment for the substation transformers, and the specific design will be determined prior to construction of the substations. All secondary containment will meet EPA requirements to have sufficient capacity to contain at least 10 percent of the total volume of the primary containers or 100 percent of the volume of the largest container, whichever is greater. The nacelles and turbine foundation will effectively function as secondary containment for the turbine gearboxes, such that no additional secondary containment systems are needed for the turbines.

The BESS may include hazardous substances within internal battery components; however, batteries are considered non-hazardous equipment when used according to the recommendations of the manufacturer and as long as their integrity is maintained (not damaged and internal seal is intact). While lithium-ion batteries can present a flammability hazard and require cooling systems

to prevent overheating, flow batteries use an electrolyte solution that is nonflammable and nonexplosive, and do not require an associated cooling system. The battery storage system, regardless of type, will have integrated safety systems that monitor battery performance to detect malfunctions and implement response measures (such as notifying operators, depowering the system, or deploying fire suppression devices). Batteries will be housed in leak-proof containers to prevent inadvertent releases of hazardous materials. O&M staff will conduct periodic inspections of the battery cells for damage.

For the replacement of batteries during operation, the Applicant will follow the handling guidelines of 49 CFR 173.185 – Department of Transportation Pipeline and Hazardous Material Administration related to the shipment of lithium-ion batteries. The regulations include requirements for prevention of a dangerous evolution of heat, prevention of short circuits, and prevention of damage to the terminals. They also require that no battery will come into contact with other batteries or conductive materials. Licensed third-party battery suppliers will be responsible for transporting batteries to and from the Project in accordance with applicable regulations.

Adherence to the requirements and regulations (including personnel training, safe interim storage, and segregation from other potential waste streams) will minimize safety hazards related to transport, use, or disposal of batteries.

Hazardous materials will be used in a manner that is protective of human health and the environment, and will comply with all applicable local, state, and federal environmental laws and regulations. The transformers in the substation yard will have polychlorinated biphenyls –free insulating oil inside the units, which have their own oil containment systems; at no time will oil be able to discharge from the proposed oil containment system. Due to the quantity of oil in the transformers (see Table G-2), the Applicant will maintain an SPCC Plan for the substation operations.

4.0 Non-Hazardous Waste Management – OAR 345-021-0010(1)(g)(C)

OAR 345-021-0010(1)(g)(C) The applicant's plans to manage non-hazardous waste materials during construction and operation.

The Applicant will fully comply with all applicable waste handling and disposal regulations on all lands associated with the Project, during both construction and operation. Solid waste will be stored in a manner that does not constitute a fire, health, or safety hazard until such time as it can be hauled off for recycling or disposal, as appropriate. Exhibit V provides details on the types and amounts of waste, and procedures and systems for the handling and disposal of waste materials.

Solid waste materials, such as excess construction materials or scrap steel, will be generated during construction. When feasible, the waste generated during construction will be recycled. Steel scraps

from turbine foundations will be separated and recycled to the extent feasible. Wood from concrete forms will be reused when possible and then recycled. Excess excavated material will be used to restore ground contours after construction.

The only material that has the potential to be disposed of on site will be waste concrete generated during construction. Waste concrete will consist of concrete solids contained in the concrete chute washout water. Concrete solids and washout water will be contained within a confined area of the foundation excavation. The washout water and any solids will be buried as part of backfilling the turbine foundation. Batches of concrete that do not meet specification will be sent back to the concrete plant. Any excess concrete will be incorporated into the foundation, rather than disposed of.

There will be no disposal of hardened waste concrete on site other than as described here. Packaging waste (such as paper and cardboard) and refuse will be separated, accumulated in dumpsters, and periodically removed for recycling or disposal at the Finley Butte Landfill or the Columbia Ridge Landfill (see Exhibit U). Portable toilets will be provided for on-site sewage handling during construction and will be pumped and cleaned regularly by the construction contractor.

During operations, little solid waste will be generated by the Project. The solar array and BESS will rely on the O&M Building for sanitation. Therefore, it will not generate any additional sewage streams. Administrative activities related to the solar array and BESS will be conducted at the O&M Building. Office waste generated at the O&M Building will be separated and periodically removed for recycling or disposal at the Finley Butte Landfill. Sewage from the O&M Building will be disposed of on site with a septic system (see Exhibit U).

Washing of solar panels will be conducted, but this limited quantity of washwater will evaporate or will infiltrate into the ground near the point of use (see Exhibit V). No additional industrial wastewater streams will be generated at the solar array.

If the flow battery system is selected, operation of the system will require infrequent replacement of the electrolyte solution. Based on manufacturer descriptions, spent electrolyte fluid is nonhazardous, and can be treated and disposed of at a licensed facility.

5.0 Conclusion

Based on the information presented in this exhibit, the Applicant has satisfied the requirements of OAR 345-021-0010(1)(g).

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Attachment G-1: Draft Spill Prevention, Control, and Countermeasures Plan

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Nolin Hills Wind Power Project

Draft Spill Prevention, Control, and Countermeasures Plan

Prepared for

Capital Power
RESPONSIBLE ENERGY FOR TOMORROW

d/b/a Nolin Hills Wind, LLC

Prepared by

TETRA TECH

Tetra Tech, Inc.

January 2022

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Acronyms and Abbreviations

Applicant	Nolin Hills Wind, LLC
CI	Chief Inspector
DOT	U.S. Department of Transportation
EI	Environmental Inspector
EPA	Environmental Protection Agency
ER Plan	Emergency Response Plan
MSDS	Material Safety Data Sheet
MW	megawatt
OAR	Oregon Administrative Rules
Project	Nolin Hills Wind Power Project
SPCC Plan	Spill Prevention, Control, and Countermeasures Plan

1.0 Introduction

Nolin Hills Wind, LLC (the Applicant) proposes to construct the Nolin Hills Wind Power Project (Project), a wind and solar energy project with a nominal generating capacity of approximately 600 megawatts (MW) (preliminarily 340 MW from wind and 260 MW from solar), in Umatilla County, Oregon. The Project's wind energy component comprises up to 112 wind turbine generators, depending on the turbine model selected and the final layout determined during the micrositing process. The solar array will include up to approximately 816,812 solar modules, depending on the final technology and layout selected. The Project will interconnect to the regional grid via either publicly owned and operated transmission lines to be constructed locally by the Umatilla Electric Cooperative , or a new 230-kilovolt transmission line anticipated to be constructed, owned, and operated by the Applicant to the proposed Bonneville Power Administration Stanfield Substation. Other Project components include an up to 120-MW battery energy storage system, electrical collection lines, substations, site access roads, one operations and maintenance building, meteorological data collection towers, and temporary construction yards.

Nolin Hills Wind, LLC prepared this Spill Prevention, Control, and Countermeasures Plan (SPCC Plan) to be implemented during construction of the Project. This SPCC Plan is required by the Environmental Protection Agency (EPA) regulations contained in Title 40 of the Code of Federal Regulations, Part 112 (SPCC Rule). This Plan meets the requirements of the updated rule promulgated by the EPA on November 5, 2009. The State of Oregon does not have specific additional oil handling, operation, or design requirements. Hazardous waste management is regulated under Division 100 of the Oregon Administrative Rules (OAR); oil spill contingency planning under Division 141; and oil and hazardous materials emergency response requirements under Division 142.

This SPCC Plan outlines preventive measures and practices to reduce the likelihood of an accidental release of a hazardous or regulated liquid and, in the event such a release occurs, to expedite the response to and remediation of the release. This SPCC Plan restricts the location of fuel storage, fueling activities, and construction equipment maintenance along the construction right-of-way and provides procedures for these activities. Training and lines of communication to facilitate the prevention, response, containment, and cleanup of spills during construction activities are also described. Additionally, this plan identifies the roles and responsibilities of key Nolin Hills Wind, LLC personnel and contractors (i.e., primary and subcontractors) who will be involved in construction of the Project. This SPCC Plan will be included in construction bid and contract documents as contractual requirements to the contractor.

All contractor and subcontractor personnel working on the right-of-way are responsible for implementation of the measures and procedures defined in this SPCC Plan.

1.1 Nolin Hills Wind, LLC

The Chief Inspector (CI) will evaluate and approve each construction contractor's (Contractor) submittal under this SPCC Plan. The project Environmental Inspector(s) (EI) will oversee implementation of the SPCC Plan and of the Contractor's plans and submittals incorporated by reference. The EI will conduct regular inspections of Contractor activities and identify any issues that may require correction. The EI has the authority to stop construction to correct issues, if necessary. The CI, Contractor, Subcontractor, and EI will be required to maintain a copy of this SPCC Plan on-site available to all personnel. Contact information for Nolin Hills Wind, LLC and subcontractor representatives is provided in Table 1 and Table 2, respectively.

Table 1. Nolin Hills Wind, LLC Representatives

Function	Name	Location	Contact Info (phone and email)
Nolin Hills Wind, LLC Project Manager			
Chief Inspector			
Environmental Inspector			
Emergency Response Coordinator: Primary			
Emergency Response Coordinator: Secondary			
Emergency Response Contractors (Company/Responsibility)			
Spill Response			
Transportation Services			
Site Remediation			
Note: This table will be completed prior to construction.			

1.2 Contractor Responsibilities

The Contractor will prepare plans and submittals under this SPCC Plan that will include activities of the Contractor and its Subcontractors (individuals are noted in Table 2). The Contractor will ensure that such documents are maintained current and complete, and that this SPCC Plan is fully implemented. Responsibilities identified as "Contractor" in subsequent sections of this SPCC Plan apply to each Contractor and Subcontractor.

Table 2. Nolin Hills Project Contractor Representatives

Function	Name	Location	Contact Info (phone and email)
Primary Contractor			
Contractor			
On-Site Foreman			
Emergency Response Coordinator: Primary			
Emergency Response Coordinator: Secondary			
Environmental Contact			
Safety Representative			
Subcontractors			
Contractor			
On-Site Foreman			
Emergency Response Coordinator: Primary			
Emergency Response Coordinator: Secondary			
Environmental Contact			
Safety Representative			
Note: This table will be completed prior to construction.			

2.0 Spill Prevention Practices

2.1 Site Selection

Site selection for Project staging areas where hazardous materials and hazardous wastes may be present has considered and avoided environmentally sensitive areas. These sites are located at least 100 feet from streams (including intermittent and perennial), wetlands (including dry or seasonal wetlands), and other waterbodies (e.g., lakes, ponds, and reservoirs); 200 feet from any private water well; and 400 feet from any municipal or community water supply well. Hazardous materials and wastes may not be sorted, handled, or used in an area that has not been approved for that purpose by the CI.

2.2 Hazardous Materials and Waste Management

Each Contractor is required to develop a detailed, site-specific Hazardous Materials Management Plan prior to construction. The Plan will identify the legal requirements that apply and Contractor requirements, and the best management practices for Project-specific spill prevention procedures,

and other stipulations and methods to address spill prevention, response and cleanup procedures for the Project. A Hazardous Materials Management Plan Framework is included in Appendix A. Each Contractor is required to identify the hazardous materials that the Contractor will use and the wastes that the Contractor may generate during Project activities. This information includes Material Safety Data Sheets (MSDS) or waste designation information, quantities, locations of storage and use, the container or tank used secondary containment, and inspection procedures. The Contractor must keep a copy of this plan on-site for the duration of all construction-related activities.

2.2.1 Hazardous Materials

No new hazardous material may enter the job site without an amendment to the Contractor's Hazardous Materials Management Plan and without the express approval of the EI.

Usable hazardous materials will be removed by the Contractor for future use upon completion of work on-site.

2.2.2 Waste

Each waste generated will be evaluated by the EI for appropriate waste designation and appropriate disposal. In no case will any waste material be disposed of at the job site, right-of-way location, or adjacent property.

2.2.2.1 Rights-of-Way and Sites Owned or Leased by the Project

Wastes generated on the right-of-way and at sites owned or leased by Nolin Hills Wind, LLC that have the potential of being hazardous waste will be returned to the approved staging point, whereupon the EI will be notified. As necessary, the Contractor will sample wastes and request assistance of the EI in waste management.

The Project EI is responsible for designation of hazardous waste, universal waste, special waste, or recyclable hazardous materials in accordance with applicable state and federal regulations, including OAR, Division 100.

Regulated wastes will be placed in approved containers, maintained in good condition, and appropriately labeled. Containers will be in an approved area and the EI will be notified of the waste activity. Nolin Hills Wind, LLC representatives will arrange for appropriate disposal of regulated wastes.

2.2.2.2 Domestic Sewage

Domestic sewage will be handled during construction by means of portable self-contained toilets, which will be stationed at central locations and reasonable distances throughout the work area.

2.3 Spill Prevention

The Contractor will handle and transfer fluids used during construction so as to prevent the release or spill of oil or other hazardous materials. Materials that are likely to be used in construction equipment include gasoline, diesel fuel, hydraulic oil, and lubricating oils.

2.3.1 Tank and Container Specifications

Specifications for tanks and containers must meet generally approved standards, including but not limited to supplier's recommendations and specifications of the U.S. Department of Transportation (DOT). In meeting these standards, tanks and containers must continuously be of integrity and condition to be acceptable for storage and transportation.

2.3.2 Dispensing and Transfer

Dispensing and transfer of hazardous materials and wastes must occur in accordance with nationally recognized standards. This includes bonding or grounding during transfer of flammable liquids. The Contractor will inspect transfers of hazardous materials and waste.

Transfer of liquids and refueling will occur only at approved locations that are at least 100 feet away from any wetlands or surface waters, 200 feet from any private water well, and 400 feet from any municipal or community water well, with certain exceptions noted below (see Section 2.3.4).

Crews must have adequate spill response equipment available at the dispensing or transfer location.

Repair/overhaul of equipment will not occur on the right-of-way or temporary work space except for emergency-type repair of short duration. Any liquids will be collected in suitable containers and appropriately disposed of.

When materials are transferred from a storage tank or container to a vehicle, the Contractor will:

- Operate during daylight hours or where lighting is adequate to illuminate the area;
- Monitor the transfer operations at all times;
- Refuel at least 100 feet from wetlands or surface waters and at least 200 feet from potable water supplies, with certain exceptions noted below;
- Keep sufficient spill control materials on-site; and
- In the event of a spill, implement the spill response procedures.

2.3.3 Materials Storage

No hazardous materials will be stored at the site during construction or operations.

2.3.4 Setback Exceptions

The dispensing and transfer (e.g., refueling) setbacks identified above may not be practical for certain construction activities in certain locations. Exceptions may only be allowed for:

- Areas such as rugged terrain or steep slopes where movement of equipment to refueling stations would cause excessive disturbances to the surface of the right-of-way;
- Construction sites where moving equipment to refueling stations is impractical or where there is a natural barrier from the waterbody or wetland (e.g., road or railroad);
- Locations where the waterbody or wetland is located adjacent to a road crossing from which the equipment can be serviced; and
- Refueling and fuel storage for immobile equipment.

All exceptions to the required setbacks must be approved by the EI.

In these situations, the Contractor shall exercise extreme caution during fueling and lubrication of equipment and all other oil and hazardous materials transfers. Only a fuel truck with a maximum of 300 gallons of fuel may enter restricted areas to refuel construction equipment. Two trained personnel will be present during refueling to reduce the potential for spill or accidents. Adequate spill containment equipment suitable to the refueling activities as described in Section 2.3.2 will be maintained at designated setback locations during refueling.

2.3.5 Other Material-Specific Measures

Paint containers will be tightly sealed; excess paint will be properly disposed of according to manufacturer's instructions and federal, state, and local regulations. All paint tools will be cleaned in a designated area located at least 100 feet from all wetlands and surface waters. No paint would be stored on site.

Concrete trucks will be allowed to wash out or discharge surplus concrete or drum wash water on the site in designated concrete washout containers. The designated area will include sediment controls installed around the perimeter and will be located 100 feet away from wetlands or surface waters. After construction, the concrete washout area will be restored to pre-construction conditions.

2.3.6 Equipment for Safe Tank Operation

Tanks will be equipped with all standard safety equipment required for the specification packaging and its use.

2.3.7 Separation of Incompatible Materials

If any incompatible materials are used, they will be stored in areas separated in accordance with nationally recognized standards. Incompatible materials will not be consecutively placed into a

container or tank. In addition, sources of ignition will be prohibited in hazardous materials areas and waste areas.

2.3.8 Labeling, Marking and Placarding

Each container will be appropriately identified with contents as per Occupational Safety and Health Administration requirements (see samples in Appendix B). Containers and tanks used for transport of hazardous materials and wastes will be marked and labeled in accordance with DOT requirements (e.g., Proper Shipping Name, UN/NA Number, Hazard Class labels or placards). In addition, tanks will be labeled in accordance with National Fire Protection Association guidelines, where required by the local jurisdiction.

Approved areas for hazardous materials and waste will be secured against unauthorized entry and vandalism.

2.4 Secondary Containment

Approved secondary containment will be provided for each container with a capacity of 5 gallons or more.

2.4.1 Minimum Standards for Secondary Containment

Secondary containment for containers with 5 or more gallons of capacity may include a temporary containment area with temporary earthen berms and contiguous 10 mil polyethylene containment; or it may consist of a portable containment system constructed of polyvinyl chloride (PVC) or other suitable material.

Secondary containment volume will be at least 110 percent of the volume of the larger tank of hazardous materials and wastes stored. If earthen berms are utilized, they will be constructed with slopes no steeper than 3:1 (horizontal to vertical) to limit erosion and provide structural stability.

2.4.1.1 Tanks

No tanks will be located within the site boundary during construction or operations.

2.4.1.2 Contractor's Secondary Containment

Secondary containment provided by the Contractor must meet these minimum standards and must be implemented as proposed in the Contractor's Hazardous Materials Management Plan.

2.4.2 Regular Inspections

The Contractor will conduct daily inspections at locations where hazardous materials and wastes are handled and dispensed. Inspections will follow site-specific procedures in the approved Contractor's Hazardous Materials Management Plan. The source of any container leak will be

stopped immediately and residual wastes will be aggregated, designated, and properly disposed of. Any leaking container will be immediately overpacked.

All vehicles (e.g., trucks, side-booms, dozers, etc.) shall be:

- Inspected daily for leaks or signs of deterioration that could result in a leak;
- Repaired when defective tanks, hoses, fittings, etc. are found; and
- Parked at least 100 feet from wetlands or surface waters, with certain exceptions noted above (see Section 2.3.4).

The EI will provide oversight to the Contractor's activities on hazardous materials and waste management.

3.0 Emergency Preparedness

Each Contractor is required to develop a Contractor's Emergency Response Plan (ER Plan) (see Appendix C) for environmental emergency preparedness and response. The ER Plan is appropriate for the hazardous materials and wastes used and generated. The initial ER Plan will be approved by the CI. This ER Plan will be maintained current; subsequent revisions may be approved by the EI.

The Contractor will maintain adequate resources, including:

- Emergency response coordinators;
- Fire-fighting equipment (such as portable fire extinguishers);
- Spill control and cleanup equipment (absorbent materials such as pads, pillows, booms and socks, non-sparking shovels, etc.);
- Appropriate personal protective equipment; and
- The Contractor's ER Plan.

3.1 Emergency Responders

The Contractor will designate personnel responsible for incident or emergency response, in the event of a release to the environment. The Contractor will ensure that emergency responders identified will have appropriate training in environmental emergency or incident preparedness, prevention, and response. The Contractor's emergency contact information will be maintained current.

In addition, Nolin Hills Wind, LLC will designate primary and secondary Emergency Response Coordinators. Emergency Response Coordinators will have the authority to commit necessary resources to respond to environmental releases and to conduct cleanup.

3.2 Emergency Response Equipment

3.2.1 Contractor's Spill Containment and Cleanup Resources

3.2.1.1 On-site Equipment

The Contractor will have available, adequate spill containment and cleanup resources that are appropriate to their activities and to the hazardous materials and wastes handled. Minimum standards are identified on Appendix C. The following additional materials will be available at a central location on each staging area:

- Boom(s);
- Cleanup rags;
- 55-gallon DOT-approved containers;
- Replacement parts and equipment for repair of tanks, hoses, nozzles, etc.;
- Fire extinguisher, type B, C;
- Two bags of chemical sorbent material (e.g., kitty litter);
- Three 17-inch x 17-inch chemical pillows;
- Four 48-inch x 3-inch chemical socks;
- Twenty 18-inch x 18-inch x 3/8-inch sorbent pads;
- Twenty 30-gallon 6-mil polyethylene bags;
- Two 30-gallon polyethylene open-head drums;
- 10 pairs of polypropylene gloves;
- Two, each type, waste labels;
- Two 8-foot x 10-foot polyethylene tarps;
- One cooler;
- One quart jar;
- One trowel; and
- 20 hay bales.

The Contractor will be prepared to clean up, characterize, and dispose of spill debris. Nolin Hills Wind, LLC will have additional contractors available for associated emergency spill response, transportation, remediation, and disposal activities.

3.2.1.2 Vehicle Response Equipment

The Contractor will maintain a supply of spill materials as descried below.

Any vehicle used to transport lubricants and fuel will be equipped with:

- One 20-pound fire extinguisher (Type: B, C);
- 50 pounds of oil absorbent (e.g., Speedy Dry or equivalent);
- Ten 48-inch x 3-inch oil socks;
- Five 17-inch x 17-inch oil pillows;
- Two 10-foot x 4-inch oil booms;
- Twenty 24-inch x 24-inch x 3/8-inch oil absorbent pads;
- Twenty 30-gallon 6-mil polyethylene bags;
- One roll of 10-mil plastic sheeting;
- Two shovels;
- 10 pairs of polypropylene gloves;
- One 55-gallon (or equivalent capacity) DOT-approved container; and
- Two, each type, waste label.

All foremen's vehicles and heavy equipment will be equipped with:

- Absorbent pads;
- Heavy duty plastic bags; and
- One shovel.

3.3 Maintaining Emergency Response Equipment

The Contractor will inspect emergency response equipment weekly to ensure that all equipment identified in the Contractor's ER Plan is available in quantities and locations identified. After response to an incident or emergency release, any equipment used will be replaced or decontaminated and returned to inventory.

4.0 Incident or Emergency Response

4.1 Environmental Release Notification

The Contractor will notify the Emergency Response Coordinator on call in the event that a spill occurs during Project activities. There will be immediate notification in the event of a release of 1 pound or more of any hazardous material or any amount of hazardous waste. The Contractor is required to complete the Spill Report Form (Appendix D) and submit the form to the Project Manager and EI. The Contractor will be considered the Waste Generator for all spills caused by construction.

If agency notification is required, Nolin Hills Wind, LLC representatives will notify the Project Manager and appropriate agencies in accordance with Nolin Hills Wind, LLC policies. Nolin Hills Wind, LLC will provide 48-hour advance notification to surface water intake operators of public drinking water source areas regarding construction through the waterbodies where their intakes are located. Appendix E will contain a description of the Project, including maps, flow diagrams, and topographical maps as necessary, which will be updated prior to construction.

4.2 Incident Response

If an environmental release occurs and is an incident that can be handled with available resources, the Contractor may be requested to perform the following, under direction of the Nolin Hills Wind, LLC Emergency Response Coordinator.

- Stop the source of release. This may mean plugging a container or tank, turning off a valve, etc.
- Remove all sources of ignition from the area.
- Contain the spill. Use an approved container, or create a lined, covered containment area.
- Collect spilled materials. Block off drains. Create/expand containment areas using available means. Use appropriate neutralizers, sorbents, pigs, and pads. Create barriers to protect sensitive areas. Personal protective equipment will be worn as recommended on the MSDS of the specific product.
- Remove all contaminated soil or other material and cover with a plastic sheet.
- Contain contaminated material and temporarily store in a secured area 100 feet away from any wetland or surface water.
- Perform any necessary sampling of waste material.
- Conduct preliminary cleanup of the site.

4.2.1 Wetland or Waterbody Response

Regardless of size, the following conditions apply if a spill occurs near or in a stream, wetland, or other waterbody.

- For spills in standing water, floating booms, skimmer pumps, and holding tanks shall be used as appropriate by the Contractor to recover and contain released materials in the surface of the water.
- For a spill threatening a waterbody, berms and/or trenches will be constructed to contain the spill before it reaches the waterbody. Deployment of booms, sorbent materials, and skimmers may be necessary if the spill reaches the water. The spilled product will be collected and the affected area cleaned up in accordance with appropriate state or federal regulations.

- Contaminated soils in wetlands must be excavated, and placed on and covered by plastic sheeting in approved containment areas a minimum of 100 feet away from the wetland or surface water. Contaminated soil will be disposed of as soon as possible in accordance with appropriate state or federal regulations.

4.2.2 Emergency Response

The Emergency Response Coordinator will act as Incident Commander, overseeing emergency release response actions taken.

If additional resources are needed, the Emergency Response Coordinator will retain emergency response contractors and/or request assistance of local emergency responders (including fire, police, hazardous materials teams, ambulance or hospitals, and highway patrol) and will coordinate all emergency response activities. As necessary, the Emergency Response Coordinator will signal evacuation of site personnel.

Where site cleanup is necessary, the Emergency Response Coordinator will coordinate cleanup actions with appropriate agency representatives who will provide guidance on appropriate waste management and disposal.

The Oregon Office of Emergency Management (1-800-452-0311) serves as the coordinator of spill response in the State of Oregon. The Office of Emergency Management determines the severity of spills and contacts the appropriate agency.

5.0 Training

Nolin Hills Wind, LLC will require that all Contractor employees involved with transporting or handling fueling equipment or maintaining construction equipment be required to complete spill training before they commence work on the Project. Nolin Hills Wind, LLC will audit Contractor compliance with this requirement. Spill training will also be required for Contractor supervisory personnel prior to commencement of work. These training sessions will provide information concerning pollution control laws; inform personnel concerning the proper operation and maintenance of fueling equipment; and inform personnel of spill prevention and response requirements. Measures, responsibilities, and provisions of this SPCC Plan, and identification of response team individuals, will be incorporated into the training.

Training of other workers will be provided through ongoing weekly safety meetings. Topics will include spill handling and personal responsibility for initiating and adhering to appropriate procedures, and the required spill containment supplies to be maintained with each construction crew. These weekly sessions will be held by the Contractor as crew “tailgate” meetings. Nolin Hills Wind, LLC will audit the Contractor compliance with this requirement to ensure the meetings are conducted.

Appendix A. Contractor's Hazardous Waste Management Forms

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CONTRACTOR'S HAZARDOUS MATERIALS MANAGEMENT

Capital Power Project:	Description:	Chief Inspector's Name:	Tel. No./Location:	Capital Power Project Number/Accounting :
Contractor:	Firm Name:	Contact Name/Tel. No.:	Address:	
	Project Dates:	Number of Contractor Personnel On-site:	Work Schedule:	

HAZARDOUS MATERIALS			*STORAGE AND HANDLING PROCEDURES*						
Material Name	**Manufacturer**	**MSDS Reference[1] (Attach)**	**Estimated Quantity Needed for Job (Units)**	**Quantity On-Site (Units)**	**Location(s) at Job Site**	**Marking/Labeling/ Placarding (Discuss or Attach)[4]**	**Tank/ Container Size(s)/ Type(s)**	**Secondary Containment (Discuss or Attach[2])**	**Inspection Procedure (Discuss or Attach[3])**

Comments:

Attachments:

[1] Provide MSDSs.

[2] Describe secondary containment for containers of 5 gallons or more capacity.

[3] Describe inspection procedures.

[4] Describe tank/drum marking, labeling and placarding procedures.

CONTRACTOR'S HAZARDOUS, UNIVERSAL AND SPECIAL WASTE and RECYCLABLE HAZARDOUS MATERIALS MANAGEMENT

WASTE DESCRIPTION[1]		WASTE ACCUMULATION AND HANDLING PROCEDURES				
Waste Type and Description	Estimated Monthly Generation Quantity/Unit(s)	Accumulation Area Location(s)[2] On-Site	Tank/Container Size(s)/Type(s)	Marking/Labeling/ Placarding (Discuss or Attach)[3]	Secondary Containment (Discuss or Attach)[4]	Inspection Procedure (Discuss or Attach)[5]

Process Generating Waste(s):

Contractor's Staging Point Location:

Comments:

Attachments:

1 If Contractor intends to completely use or re-use hazardous materials on-site or off-site and no hazardous waste will be generated, please discuss.

2 Note: Locations may be established on site during mobilization.

3 Describe tank/drum marking, labeling and placarding procedures.

4 Describe secondary containment for containers of 5 gallons or more capacity.

5 Describe inspection procedures, inspection frequency, title of inspector.

Distribution:	Original:	Informational Copies:		Revision Date (by Contractor):	
Chief Inspector/Capital Power File		Capital Power Environmental Inspector: _____			
		Safety-Training: _____			
		Others: _____			

Appendix B. Labels for Waste Containers

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"MATERIALS IDENTIFICATION LABEL" (all containers)

<table>
<tr><th colspan="3">Sams Valley Reinforcement Projects</th></tr>
<tr><th colspan="3">MATERIALS IDENTIFICATION LABEL</th></tr>
<tr><td rowspan="5">Sams Valley Reinforcement Projects:</td><td colspan="2">Description:</td></tr>
<tr><td colspan="2">Facility/Location:</td></tr>
<tr><td colspan="2">Chief Inspector:</td></tr>
<tr><td colspan="2">Environmental Inspector:</td></tr>
<tr><td colspan="2">PacifiCorp Project Number/Account:</td></tr>
<tr><td rowspan="3">Contractor:</td><td colspan="2">Contractor Name:</td></tr>
<tr><td colspan="2">Environmental Contact Name:</td></tr>
<tr><td colspan="2">Telephone No.:</td></tr>
<tr><td colspan="3">Process:</td></tr>
<tr><td>Materials Description:</td><td>Quantity:</td><td>___pounds
___gallons</td></tr>
<tr><td>Container Type (drum, tank, etc.):</td><td colspan="2">Container Location:</td></tr>
<tr><td>Container Number:</td><td colspan="2">Date of Accumulation:</td></tr>
<tr><td rowspan="6">Status of Material:
(if sampling and analysis are required)</td><td colspan="2">Sample Number:</td></tr>
<tr><td colspan="2">Sample Date:</td></tr>
<tr><td colspan="2">Analytical Laboratory:</td></tr>
<tr><td colspan="2">Analysis Date:</td></tr>
<tr><td colspan="2">Report Date:</td></tr>
<tr><td colspan="2">Analytical Results:</td></tr>
</table>

"RECYCLABLE MATERIAL/WASTE" CONTAINER LABEL

Sams Valley Reinforcement Projects

RECYCLABLE MATERIAL/WASTE LABEL

Facility Name: _____

Address: _____

State/Zip: _____

Contact: _____

Type: ☐ **USED OIL**

UNIVERSAL WASTE:

☐ Universal Waste – Batteries

☐ Universal Waste – Lamps

☐ Universal Waste – Mercury Thermostats

☐ **SPECIAL WASTE**

☐ **RECYCLABLE MATERIAL**

Description: _____

Accumulation Date: _____

DOT Proper Shipping Name: _____

_____

_____

UN/NA Number: _____

HAZARDOUS WASTE "WORKPLACE ACCUMULATION CONTAINER" LABEL

WORKPLACE ACCUMULATION CONTAINER

Proper D.O.T Shipping Name: _____

_____

UN/NA# _____

Generator: _____

Facility: _____

Address: _____

Phone: _____ **City:** _____

State: _____ **Zip:** _____

EPA ID No: _____

Workplace Accumulation

Start Date: _____

HAZARDOUS

WASTE

STATE AND FEDERAL LAW

PROHIBITS IMPROPER DISPOSAL.

IF FOUND, CONTACT THE NEAREST

POLICE OR PUBLIC SAFETY

AUTHORITY, THE

U.S. ENVIRONMENTAL PROTECTION

AGENCY, OR THE OREGON

DEPARTMENT OF

ENVIRONMENTAL QUALITY

HANDLE WITH CARE!

Composition: _____

_____

Physical State of Waste:

Solid _____ **Liquid** _____

Hazardous Properties: ☐ **Toxic**

☐ **Flammable** ☐ **Corrosive**

☐ **Reactivity** ☐ **Other** _____

EPA Waste No. _____

CA Waste No. _____

Date Placed in Hazardous

Waste Storage Area: _____

Manifest Document Number:

_____

"USED OIL" CONTAINER LABEL

USED

OIL

Appendix C. Contractor's Emergency Response Plan Form

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CONTRACTOR'S EMERGENCY RESPONSE PLAN

Capital Power SPCC/Emergency Response Plan Reviewed: (Y/N)			
Emergency Response Coordinator			
Name	**Title**	**Telephone** (Office/Job Site)	**Address**
Primary			
Secondary			

Incident/Emergency Response Equipment				
Emergency Response Equipment	**Type**	**Capability**	**Quantity**	**Location**
Fire Fighting	Fire Extinguishers	Type: B, C?		Jobsite Crew Staging Area
Incident Response Kit	Chemical sorbent material (e.g., kitty litter)	Chemical Spill Response	2 bags	Project Staging Area
	17" x 17" chemical pillows	"	3	"
	48" x 3" chemical socks	"	4	"
	Sorbent pads 18" x 18" x 3/8"	"	20	"
	6 mil polyethylene bags	"	20, 30-gal.	"
	Polyethylene open-head drum	"	2, 30-gal.	"
	Polypropylene gloves	"	10 pair	"
	Waste Labels	"	2 Each	"
	8' x 10' Polyethylene Tarp	"	2	"
Release Response Kit	48"x3" oil socks	Fuel/Oil Spill Response	10	Each Fuel/Oil Truck
	17" x 17" oil pillows	"	5	"
	10' x 4" oil boom	"	2	"
	24" x 24" x 3/8" oil mats	"	20	"
	6 mil polyethylene bags	"	20, 30-gal.	"
	Polypropylene Gloves	"	10 pair	"
	Propylene open-head drum	"	1, 55-gallon	"
	Waste Labels	"	2 Each	"
Sample Kit	Cooler, Quart Jars, Trowel	Sampling of solids	1	Project Staging Area
Spill Containment	8' x 10' Polyethylene Tarp	Contain Spill Debris	2	Project Staging Area
	Hay Bales	"	20	"

Evacuation Procedures

Distribution:	Original:	Informational Copies:	Revision Date (by Contractor):	
	Chief Inspector/Capital Power File	Capital Power Environmental Inspector: _____		
		Safety-Training: _____		
		Others: _____		

Appendix D. Spill Report Form

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Nolin Hills Wind Power Project
Spill Report Form

General Information

Date/time of spill: _____

Date/time of spill discovery: _____

Name and title of discoverer: _____

Milepost/Legal Description: _____

Spill Source and Site Conditions

Material spilled/Estimated volume: _____

Unique qualifier, if relevant, such as manufacturer: _____

Media in which the release exists: (circle: sand, silt, clay, upland, wetland, surface water, other): _____

Topography and surface conditions of spill site: _____

Proximity to wetlands and surface waters (including ditches): _____

Proximity to private or public water supply wells: _____

Directions from nearest community: _____

Weather conditions at the time of release: _____

Describe the causes and circumstances resulting in the spill: _____

Describe the extent of observed contamination, both horizontal and vertical (i.e., spill-stained soil in a 5-foot radius to a depth of 1 inch): _____

Nolin Hills Wind Power Project
Spill Report Form

Spill Control and Clean-up

Describe immediate spill control and/or cleanup methods used and implementation schedule:

Location of any excavated/stockpiled contaminated soil:

Describe the extent of spill-related injuries and remaining risk to human health and environment:

Name, company, and telephone number of party causing spill (e.g., contractor):

Current status of cleanup actions:

Contact Information

Name and company for the following:

Construction Superintendent (Contractor):

Spill Coordinator:

Environmental Inspector:

Chief Inspector (Capital Power)

Landowner notified (if appropriate):

Date: _____

Form completed by:

Date: _____

Government agency notified **(to be completed by Capital Power or Capital Power's Representative)**:_____

Date: _____

Spill Coordinator must complete this form for any spill, regardless of size, and submit the form to the Capital Power Representative and Environmental Inspector within 24 hours of the occurrence.

Appendix E. Project Description and Site Maps

[SITE MAPS WILL BE PROVIDED PRIOR TO CONSTRUCTION]

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Attachment G-2: Example Spill Prevention Control and Countermeasure Plan – Cardinal Point Wind Site

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Spill Prevention Control and Countermeasure Plan

prepared for

Capital Power Corporation
Cardinal Point Wind Site
Warren and McDonough Counties, Illinois

Project No. 118768

Revision Number 0
March 18, 2020

prepared by

Burns & McDonnell Engineering Company, Inc.
Downers Grove, Illinois

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APPENDICES

INTRODUCTION

Facility Name & Location:	Cardinal Point LLC 22519 E 600th St. Sciota, IL 61457
Type of Facility:	Electric power generation by wind turbines
Year of Initial Facility Operations:	2020
Name and Address of Owner:	Capital Power 155 Federal Street Suite 1200 Boston, Massachusetts 02110

Facility Contacts

Name	Title	Office Telephone	Cellular Phone
Joe Glaze	Site Operator Capital Power	(780) 392-5538	(309) 255-0012
Joseph Griffiths	Sr. Environmental Specialist, Capital Power	NA	(630) 488-5593
Sandeep Sharma	Renewables Manager Capital Power	(780) 392-5277	(780) 405-6262
TBD	Site Supervisor GE	TBD	TBD

SPCC CHANGE MANAGEMENT AND REVIEW FORM

In accordance with 40 CFR 112.5(b), a review and evaluation of this Spill Prevention Control and Countermeasure (SPCC) Plan is conducted at a minimum of once every five years. The SPCC Plan shall be amended within six months of the review to include more effective prevention and control technology if: (1) Such technology will significantly reduce the likelihood of a discharge as described in SPCC regulations codified in 40 CFR 112.1(b) from the Facility; and (2) if such technology has been field-proven at the time of the review. Implementation of amendments shall be conducted within six months following amendment.

Change Management / Review Documentation

Review / Revision Date	Revision Description	Revised Pages	PE certification required (yes or no)	Date PE Certified	Program Approval
	Original Plan Preparation	n/a	Yes	3/18/2020	

CERTIFICATION

I, Amy Michelle Reed, a licensed Professional Engineer, hereby certify that: (1) I am familiar with the provisions of (40 CFR 112); (2) I have visited and examined the facility; (3) the Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards, and with the requirements of 40 CFR 112; (4) procedures for required inspections and testing have been established; and (5) the plan is adequate for the facility.

This certification in no way may be construed as a warranty by the licensed Professional Engineer adequacy of the SPCC Plan will be fully implemented and in no way relieves the owner or operator of the facility of its duty to prepare and fully implement this SPCC Plan in accordance with the requirements of 40 CFR 112.

Facility:
Cardinal Point Wind - 22519 E 600th St., Selota, IL 61457

Burns & McDonnell Engineering, Company Inc.
9400 Ward Parkway, Kansas City, Missouri 64114
Corporate Engineering License Number 184.001310-006

Signature:	Amy Michelle Reed
Engineer:	Amy Michelle Reed, P.E.
Registration #:	062065067
State:	Illinois
Date:	3/18/2020

MANAGEMENT APPROVAL

This SPCC Plan has been reviewed and approved by management at a level with the authority to commit necessary resources for implementing this Plan. The programs and procedures outlined in the Plan will be implemented and periodically reviewed and updated in accordance with 40 CFR Part 112, as amended, and applicable state and local requirements. The Capital Power Cardinal Point Wind Energy Site is committed to the prevention of discharges of oil to navigable waters and the environment, and maintains this SPCC Plan through regular review, updating, and implementation of this SPCC Plan.

Signature _____ Date _____

Name: Joseph Griffiths

Title: Sr. Environmental Specialist, Environment, Capital Power

PREFACE

This Spill Prevention Control and Countermeasure (SPCC) Plan has been developed to address the storage and management of petroleum products at the Cardinal Point Wind Site operated by Capital Power Corporation (Capital Power) in Warren and McDonough Counties, Illinois (Site). This SPCC Plan includes a discussion of the petroleum product storage and usage areas at the Site.

The SPCC Plan is designed to fulfill the requirements of 40 CFR 112, Environmental Protection Agency (EPA) Oil Pollution Prevention Regulations. The SPCC Plan describes practices, procedures, structures, and equipment at the facility to prevent spills and to mitigate or preclude adverse impact on the environment. The Plan only addresses Capital Power operations associated with the Site.

The SPCC Plan is to be available to all responsible individuals. A copy will be maintained in the Operations and Maintenance Building. The Plan will be reviewed at least once every five years or when facility or operational changes warrant to verify information is accurate and the SPCC Plan is adequate for protection of the environment.

Refer to Figure 1 in Appendix A for the Site Location Map.

The following equipment, management system, or procedures need to be implemented to meet the requirements of the SPCC regulations: A spill response contractor will need to be added to Table 6, Appendix C, Emergency Response Notification List, when selected.

CROSS REFERENCE

Section in 40 CFR 112	USEPA SPCC Requirements	Section / Page in this SPCC
Requirement to prepare and implement a Spill Prevention, Control, and Countermeasure Plan		
3(d)	Professional Engineering review and certification	Page iii
3(e)	Distribution of plan and availability	Section 2/Page 2-1
Amendment of Spill Prevention, Control, and Countermeasure Plan by Regional Administrator		
4(a)	Facility discharges submit information to the Regional Administrator	Section 3/Page 3-1
Amendment of Spill Prevention, Control, and Countermeasure Plan by owners or operators		
5(a)	Amending the SPCC Plan	Section 4/Page 4-1
5(b)	Review and evaluation of the SPCC	Section 4/Page 4-1
5(c)	Professional Engineer certification of technical amendment	Section 4/Page 4-2
General requirements for Spill Prevention, Control, and Countermeasure Plans		
7(a)	Management commitment	Page iv
7(a)(3)	The physical layout of the facility • Diagrams • Countermeasures for discharge discovery and response • Methods for disposal of recovered materials • Contact list and phone numbers	Appendices A-C Figures 1-4 Section 5/Pages 5-1 to 5-3
7(b)	Plan a prediction of the direction, rate of flow, and total quantity of oil which could be discharged from the facility as a result of major equipment failure	Appendix B-C Table 3 Section 6/Page 6-1
7(c)	Provide appropriate containment and/or diversionary structures or equipment to prevent a discharge	Section 7/Page 7-1
7(d)	Impracticability Determination	Section 8/Page 8-1
7(e)	Inspections, tests, and records	Section 9/Pages 9-1, 9-2
7(f)	Personnel, training, and discharge prevention procedures	Section 10/Page 10-1
7(g)	Security (excluding oil production facilities)	Section 11/Page 11-1
7(h)	Tank truck loading / unloading	Section 12/Page 12-1
7(j)	State Regulations	Section 1.3/Pages 1-3, 1-4 Section 14/Page 14-1
Requirements for onshore facilities (petroleum oils)		
8(b)	Facility drainage	Section 16/Page 16-1
8(c)	Bulk storage containers	Appendix B Figures 3-4 Table 1 Section 16/Pages 16-1, 16-2
8(d)	Facility transfer operations, pumping, and facility process	Section 16.3/Page 16-4
Requirements for animal fats and vegetable oils		
12(b)	Facility drainage	NA
12(c)	Bulk storage containers	NA
12(d)	Facility transfer operations, pumping, and facility process	NA

1.0 REGULATORY REQUIREMENTS

1.1 GENERAL INFORMATION

Section 311 of the 1972 amendments to the Federal Water Pollution Control Act, mandated the development of an "Oil Pollution Prevention" program by the Environmental Protection Agency (EPA). The regulations were published in Title 40, Part 112 of the Code of Federal Regulations (40 CFR 112), in 1973, with modifications to the Spill Prevention Control and Countermeasure (SPCC) requirements proposed on several occasions in the 1990s and 2000s. The revised rule became effective on January 14, 2010. The regulations established procedures, methods and equipment to prevent the discharge of oil to navigable waters. Among the procedures was the requirement for the development of a written SPCC Plan by facilities subject to the rule.

According to 40 CFR 112, the SPCC regulation applies to:

> Owners or operators of non-transportation-related onshore and offshore facilities engaged in drilling, producing, gathering, storing, processing, refining, transferring, distributing or consuming oil and oil products, and which, due to their location, could reasonably be expected to discharge oil in harmful quantities, as defined in Part 110 of the rule, into or upon the navigable waters of the United States or its shorelines.

"Non-transportation-related onshore and offshore facilities" according to the SPCC regulation include: Industrial, commercial, agricultural, or public facilities which use and store oil, but excluding any terminal facility, unit, or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

The Cardinal Point Wind Site is included under these regulations and specifically according to the criteria set forth in Section 112.1(d)(2)(ii). Section 112.1(d)(2)(ii) of 40 CFR 112 sets a maximum aboveground storage volume at 1,320 gallons total before a SPCC Plan is required. The capacity of the aboveground storage tanks at the facility exceeds the 1,320-gallon threshold for a site being required to prepare a SPCC plan; therefore, the Cardinal Point Wind Site is subject to SPCC regulatory requirements.

Part 40 CFR 112.1(b) explains that the SPCC rule applies to owners or operators of facilities that drill, produce, gather, store, process, refine, transfer, distribute, use, or consume oil and oil products, and might reasonably be expected to discharge oil in quantities that may be harmful into or upon navigable waters of the United States or adjoining shorelines, or waters of the contiguous zone, or in connection with

activities under the Outer Continental Shelf Lands Act or Deepwater Port Act, or affecting certain natural resources.

1.2 DEFINITIONS

Common definitions in 40 CFR 112 are provided below:

- **Discharge:** Includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of oil, but excludes discharges in compliance with a permit under Section 402 of the Clean Water Act (CWA); discharges resulting from circumstances identified, reviewed, and made a part of the public record with respect to a permit issued or modified under Section 402 of the CWA, and subject to a condition in such permit; or continuous or anticipated intermittent discharges from a point source, identified in a permit or permit application under Section 402 of the CWA, that are caused by events occurring within the scope of relevant operating or treatment systems. For purposes of this part, the term discharge shall not include any discharge of oil that is authorized by a permit issued under Section 13 of the River and Harbor Act of 1899 (33 U.S.C. 407).

- **Facility:** Any mobile or fixed, onshore or offshore building, property, parcel, lease, structure, installation, equipment, pipe, or pipeline (other than a vessel or public vessel) used in oil well drilling operations, oil production, oil refining, oil storage, oil gathering, oil transfer, oil distribution, and oil waste treatment, or in which oil is used, as described in Appendix A to 40 CFR 112. The boundaries of a facility depend on several site-specific factors, including but not limited to, the ownership or operation of building, structures, and equipment on the same site and types of activity at the site. Contiguous or non-contiguous buildings, properties, parcels, leases, structures, installations, pipes, or pipelines under the ownership or operation of the same person may be considered separate facilities. Only this definition governs whether a facility is subject to 40 CFR 112.

- **Harmful Quantities:** For purposes of Section 311(b)(4) of the CWA, discharges of oil in such quantities that the Regional Administrator has determined may be harmful to the public health or welfare or the environment of the United States include discharges of oil that:

  a. Violate applicable water quality standards; or

b. Cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

- **Oil:** Means oil of any kind or in any form, including, but not limited to: fats, oils, or greases of animal, fish, or marine mammal origin; vegetable oils, including oils from seeds, nuts, fruits, or kernels; and, other oils and greases, including petroleum, fuel oil, sludge, synthetic oils, mineral oils, oil refuse, or oil mixed with wastes other than dredged spoil.

  There are also specifically listed definitions of petroleum and non-petroleum oil, as follow:

  - **Petroleum oil:** Means petroleum in any form, including but not limited to crude oil, fuel oil, mineral oil, sludge, oil refuse, and refined products.

  - **Non-petroleum oil:** Means oil of any kind that is not petroleum-based, including but not limited to: fats, oils, and greases of animal, fish, or marine mammal origin; and vegetable oils, including oils from seeds, nuts, fruits, and kernels.

- **Permanently closed:** Means any container or facility for which:

  1. All liquid and sludge has been removed from each container and connecting line; and

  2. All connecting lines and piping have been disconnected from the container and blanked off, all valves (except for ventilation valves) have been closed and locked, and conspicuous signs have been posted on each container stating that it is a permanently closed container and noting the date of closure.

1.3 REGULATORY REQUIREMENTS

Reporting Requirements: The regulations require that all spills that could reach the navigable waterways be reported as soon as possible to the National Response Center (NRC) at the toll-free number 1 (800) 424-8802. The NRC will then notify local authorities responsible for coordinating spill response (more information on reporting requirements is contained in Section 3.0). See Appendix C for spill reporting procedures and the emergency notification list. The regulation broadly defines navigable waterways so that any drainage to a stream is included in this regulation.

The Illinois Emergency Management Agency (IEMA) will be notified immediately by telephone if a spill is reported to the NRC. Illinois regulations require a report of a spill of 25 gallons or more that flows off the property. The IEMA does require written follow-up notification within 30 days of the spill. A release reported to the NRC and/or IEMA will also be reported to the Local Emergency Planning Committee (LEPC). Refer to Table 5 in Appendix C for spill reporting procedures to state and local agencies. See Table 6 in Appendix C for the Emergency Response Notification List with telephone numbers.

Inspections: A complete copy of the SPCC Plan must be accessible and maintained in the environmental files located in the data room at the Site at all times and available to the EPA Regional Administrator or his representative during normal working hours. Monthly inspections must be scheduled and documented according to procedures prepared by the owner.

Training: Capital Power provides annual SPCC training to oil-handling employees.

Certification: To satisfy the requirements of 40 CFR 112, the SPCC Plan and subsequent technical amendments or revisions must be reviewed and certified by a licensed Professional Engineer.

2.0 AVAILABILITY OF THE PLAN – 112.3(e)

This SPCC Plan is maintained on file electronically on Capital Power's network server system, which may be accessed in the data room of the Cardinal Point Wind Site Operations & Maintenance Building. The Plan must be available for onsite review by representatives of the EPA during normal working hours. In addition, copies of the Plan must be available for access to all persons responsible for administration of the Plan.

3.0 OIL SPILL REPORTING REQUIREMENTS – 110.6

Response to spills is conducted according to the procedures detailed in the following subsections. It should be noted that, if several personnel respond to an incident, many of the following procedures may be conducted concurrently. For example, when one person is following the emergency notification procedures, other personnel could be implementing actions to contain the spill.

3.1 Internal & External Oral Reporting Requirements

Upon the discovery of a spill, the following notifications must be made:

- The employee discovering the spill will notify the Cardinal Point Wind Site Operator (Site Operator), Capital Power Environmental Specialist or their designee.
- The Site Operator, or their designee, will follow the Notification Action Summary (Table 5 in Appendix C). In all instances when a spill is reportable, Environmental Services should be contacted first. In most cases, Environmental Services will then make the other required notifications.

The phone numbers for the Site Operator and Capital Power Environmental Specialist, as well as the federal, state, and local government are provided on Table 6 in Appendix C. Appendix C also contains the Oil Spill Response Immediate Actions (Table 4, Appendix C), the Notification Action Summary (Table 5, Appendix C), and the Spill Response Notification Form (Table 7, Appendix C).

3.2 External Written Reporting Requirements – 112.4(a)

A written report must be filed with EPA whenever harmful quantities of oil are released as follows:

> A discharge of more than 1,000 U.S. gallons of oil into navigable waters in a single event, or two discharges or more of 42 gallons or more in a twelve-month period.

A discharge is defined as a release which:

a. Released quantities “that violate applicable state water quality standards,” or

b. “Causes a film or sheen upon or discoloration of the surface of the water or adjoining shoreline or cause a sludge or emulsion to be deposited beneath the surface of the water or adjoining shorelines.”

When the threshold criteria are exceeded, Environmental Services will submit the following information within 60 days of the spill event to the EPA Regional Administrator:

1. Name of the facility – Cardinal Point Wind Site
2. Your name and Owner Information - Capital Power Corporation, 155 Federal Street, Suite 1200, Boston, Massachusetts 02110;
3. Location of the facility – County Road 600 East and County Road 2400 North, Warren and McDonough Counties, IL;
4. Maximum storage or handling capacity of the Facility and normal daily throughput - Storage capacity is approximately 51,907 gallons;
5. Corrective action and countermeasures you have taken, including a description of equipment repairs and replacements;
6. An adequate description of the Facility, including maps, flow diagrams, and topographical maps, as necessary;
7. The cause of such discharge as described in §112.1(b), including a failure analysis of the system or subsystem in which the failure occurred;
8. Additional preventive measures you have taken or contemplated to minimize the possibility of recurrence; and
9. Such other information as the Regional Administrator may reasonably require pertinent to the Plan or discharge.

4.0 AMENDMENTS TO THE PLAN – 112.5

This Plan will be amended for any of the following reasons:

1. When required by the EPA Regional Administrator (40 CFR 112). NOTE: The EPA must notify the facility operator by certified mail to, or personal delivery to, the facility owner or operator regarding proposed amendments. Within 30 days from receipt of notice, the facility can submit information, views and arguments on the proposed amendments. After considering all relevant material presented, the Regional Administrator will again notify the facility of the Agency's decision. Amendments required by the Regional Administrator shall become part of the Plan 30 days after such notice, unless otherwise specified by the Regional Administrator. The amendments shall be implemented as soon as possible. The facility can appeal that decision to the Administrator of the EPA. The appeal must be submitted in writing within 30 days of the receipt of notice. The Administrator, or designee, shall render a decision within 60 days of receiving the appeal and shall notify the owner or operator of this decision. Required amendments must be implemented as soon as possible, but not later than six months after the change occurs. A registered Professional Engineer must certify technical amendments to the Plan.

2. Amendments are required whenever there is a change in facility design, construction, operations, or maintenance, which materially affects the potential for a discharge of oil into or upon navigable waters of the United States. Such amendments must be implemented as soon as possible, but not later than six months after the change occurs. All amendments must be documented on the SPCC Change Management and Review Form located on page ii and certified by the Operations and Maintenance Superintendent and Professional Engineer (if applicable).

3. The owner or operator is required by regulation to review and evaluate the SPCC Plan at least once every five years. An amendment is required if the review indicates that more effective control and prevention technology will significantly reduce the likelihood of a spill event and if such technology has been field proven at the time of review. Such amendments must be implemented as soon as possible, but not later than six months after the review occurs. All amendments must be documented on the SPCC Change Management and Review Form located on page ii, and certified by the Site Operator, Capital Power Environmental Specialist and Professional Engineer (if applicable). If no changes are made to the Plan the following written statement signed by Plant management or his designee must be inserted into the Plan.

"I have completed the review and evaluation of the SPCC Plan for the Cardinal Point Wind Site on (date) and will not amend the Plan as result."

5.0 GENERAL REQUIREMENTS FOR SPCC PLANS

5.1 FACILITY DESCRIPTION – 112.7(a)(3)

The Cardinal Point Wind Site (Site or Facility) is in Warren and McDonough Counties in Macomb, Illinois (refer to Figure 1, Appendix A). The Site consists of one Operation and Maintenance (O & M) Building, one substation, 12 General Electric (GE) 2.5-megawatt (MW) wind turbines, and 48 GE 2.8 MW wind turbines. The address of the O & M Building is 22519 East 600th Street which is located off County Road 600 East and County Road 2300 North. The substation containing oil-filled equipment is south of the O & M Building. Oil storage and usage areas at the Site are summarized on Table 1 in Appendix B and shown on Figure 2 in Appendix A.

The total petroleum storage capacity at the Facility is approximately 51,907 gallons (total calculated from Table 1 – in Appendix B). The Facility receives 55-gallon drums of turbine gearbox oil, yaw drive oil, yaw pitch drive oil, bearing grease, and mineral oil by truck. The SPCC Plan does not cover releases from drum transport trucks before entering or after leaving the Facility.

Wind Turbine Generators

The wind turbine generators each contain approximately 94 gallons of various lubricating and gear oils inside the turbine. Most spills within the wind turbine generators would be contained within the wind turbine nacelle and tower or at the base of the turbine. The base of each tower has a plugged drain to prevent spills or leaks from reaching the soil.

Pad-Mounted Transformers

An oil-filled, pad-mounted transformer is located at the base of each wind turbine. Each transformer contains approximately 549-gallons of mineral oil. A release from one of the transformers would be identified due to a loss of power at the wind turbine. Level gauges on each transformer will be monitored by Operations as a part of routine inspections. Low fluid-level alarms on transformers are set to activate when a loss of oil is detected. Transformers are also equipped with pressure relief devices. Relays or fuses are set to shut-off a transformer if a fault is detected.

The most likely release scenario (10 gallons) from the main body of the transformer will be contained in the box pad. The most likely release scenario (10 gallons) release from the fins will be contained by the porosity of the crushed rock surrounding the transformer in combination with spill response equipment.

Oil Storage Building

An Oil Storage Building is east of the O & M Building. New oil is stored in up to twenty 55-gallon drums inside the Oil Storage Building. The drums are stored on spill containment pallets. An approximately 350-gallon concrete oil containment basin is located beneath the drum storage area and provides enough containment for a release from one of the 55-gallon drums. In the event of a release from a 55-gallon drum, a third-party vendor would remove the oil from the concrete oil containment basin.

Substation

One oil-filled transformer (main transformer) is in the substation. The transformer has a capacity of 12,144 gallons of mineral oil and is located within concrete containment. The concrete containment structure provides approximately 13,884 gallons of containment for the transformer, which is enough to contain a release from the transformer plus a rainfall event. The concrete containment dike is equipped with an oil stop valve to prevent leakage. The valve is equipped with an oil minder valve that shuts off in the event oil is detected in the sump. If the sump pump malfunctions, personnel need to manually pump out the containment area with a manually activated submersible pump.

One oil-filled distribution transformer (T-167) is in the substation. The transformer has a capacity of 83 gallons of mineral oil and is mounted on the north side of Collector Circuit-1. The area below the transformer is covered with crushed rock. The most likely release scenario (10 gallons) release will be contained by the porosity of the crushed rock surrounding the transformer in combination with spill response equipment.

5.2 FACILITY DIAGRAMS

Figure 2 in Appendix A shows the location of each wind turbine. Figure 3 shows the drum storage area located at the O&M Building; Figure 4 shows the oil-filled equipment at the substation. The tanks, oil-filled equipment, and containment structures identified on Figures 2 through 4 correspond with the tank and containers listed on Table 1, in Appendix B. Table 1 provides a list of storage tank locations, conditions, contents, and a summary of secondary containment for each tank and container.

5.3 TANK SCHEDULE – 112.7(a)(3)(i)

Table 1, in Appendix B, lists storage tank capacity, material stored, type of oil, and a summary of secondary containment for each tank and container.

5.4 PROCEDURES – 112.7(a)(3)(ii)

Capital Power operates and maintains the transformers at the substation and at the base of each wind turbine in accordance with standard industry practice. The wind turbine generators are operated and maintained in accordance with the manufacturer's recommendations. There are usually no filling operations associated with the transformers.

Oil changes within the wind turbine generator systems are determined by oil analysis or by a set schedule. When oil changes are performed, 55-gallon drums are used for the delivery of fresh oil and storage of used oil.

5.5 SECONDARY CONTAINMENT – 112.7(a)(3)(iii)

All tanks and containers at the facilities have sized or general secondary containment. See Section 5.1 for more detail on these containment areas. For secondary containment capacities see Table 1, in Appendix B.

5.6 COUNTERMEASURES – 112.7(a)(3)(iv)

Countermeasures for discharge discovery, response, and cleanup can be found in Table 4 in Appendix C.

5.7 DISPOSAL – 112.7(a)(3)(v)

Environmental Services coordinates disposal methods for spilled and spent/contaminated materials with appropriate spill response contractors as necessary.

5.8 EMERGENCY CONTACTS – 112.7(a)(3)(vi)

Table 6 in Appendix C contains the names and telephone numbers of a spill response contractor, National Response Center, and appropriate federal, state, and local agencies that must be contacted in the event of a reportable discharge.

5.9 SPILL REPORTING – 112.7(a)(4)

Section 3.1.2 provides site-specific written reporting information for the Cardinal Point Wind Site.
The Spill Response Notification Form (Table 7, Appendix C) should be completed prior to contacting regulatory agencies. The completed form will contain information that will be useful in reporting to the regulatory agencies. This form was developed to facilitate prompt and accurate spill reporting.

5.10 EMERGENCY RESPONSE PLAN – 112.7(a)(5)

Appendix C contains the Oil Spill Response Immediate Actions (Table 4, Appendix C), Notification Action Summary (Table 5, Appendix C), Emergency Response Notification List (Table 6, Appendix C), Spill Response Notification Form (Table 7, Appendix C) and Disposal Plan (Table 8, Appendix C). These sections were organized to make them readily usable in the event of an emergency.

6.0 SPILL POTENTIAL – 112.7(b)

The purpose of this section is to provide general predictions of the direction, rate of flow, and total quantity of oil, which could be discharged from the facilities as a result of the most probable types of failure. Based on experience the following release scenarios are believed to be the most probable:

- Rupture or leaks from the transformers
- Spills during maintenance activities, such as changing or adding transformer oil
- Spills or leaks from drums in storage it the Oil Storage Building
- Spills or leaks from the wind turbine generator oil-containing systems

Table 3 in Appendix B summarizes the potential spill scenarios at the Cardinal Point Wind Site.

Cardinal Point Wind Site can respond to a small size spill. For larger spills the Cardinal Point Wind Site will rely on a licensed spill response contractor (to be determined) for cleanup and disposal of the spilled material. Contact information for the contractor(s) can be found on Table 6 in Appendix C.

7.0 CONTAINMENT AND DIVERSION STRUCTURES – 112.7(c)

The following preventive systems are used at the Cardinal Point Wind Site to prevent a discharge of oil from reaching a navigable watercourse.

7.1 ONSHORE FACILITIES – 112.7(c)(1)

Secondary containment for the oil storage areas at the Site is discussed in Section 5.1.

7.2 OFFSHORE FACILITIES – 112.7(c)(2)

The Site is not an offshore facility; therefore, this section is not applicable.

8.0 OIL SPILL CONTINGENCY PLAN AND MANPOWER – 112.7(d)

As described in Section 5.1 and Section 12.0 of this document, the Site has sufficient secondary containment structures to prevent discharged oil from reaching a navigable watercourse, as required by 40 CFR 112.7(c); therefore, no contingency plan is required for the Site.

9.0 INSPECTIONS, TESTS AND RECORDS – 112.7(e)

This inspection program plan is intended to prevent and detect system malfunctions, equipment deterioration, and operator errors. The inspection program is designed to provide an early warning of the potential for such events in order that corrective and preventive actions may be taken in a timely manner.

The inspection program is implemented by individuals assigned the responsibility to detect unsafe conditions at the Facility and prevent adverse consequences. Individuals implementing the inspection program have been trained in accordance with Section 10.1. The designated individuals have the training and authority to:

- Implement the required inspection.
- Identify potential spills.
- Perform necessary evaluations.
- Recommend appropriate corrective or remedial actions.

9.1 DAILY VISUAL OBSERVATIONS

On days the Facility is in operation, Facility personnel observe the condition of the wind turbines, transformers, piping, valves, pumps, drum storage area, floors and crushed rock areas, and secondary containment dike for drips, corrosion, and fatigue, which could indicate a potential for leaks. Signs of leakage are reported to the Site Operator or his designee. These observations are performed on a routine basis but are not intended to meet the requirements of the SPCC regulation.

9.2 SPCC VISUAL INSPECTIONS

Monthly inspections of oil product storage and transfer areas are conducted to identify and correct problems before spills occur and meet the SPCC regulations. These inspections are recorded on the Monthly Inspection Form provided in Appendix D. Conditions which could cause the eventual leaking of oil are reported to the Site Operator or their designee. Written guidelines for the inspection procedure are provided in Appendix D. Oil storage and usage areas will be inspected on the following schedule:

- Substation Transformers (Main Transformer, T-167): Monthly
- Operations and Maintenance Oil Storage Area: Monthly
- Pad-Mounted Transformers at Wind Turbines: Monthly
- Wind Turbine Generators/Nacelles: Monthly

Wind site personnel, or another designated individual, will perform the inspections. Environmental actions designated "immediate" shall be assigned a "high priority" work request/work order or be immediately fixed and so noted on the reports.

9.3 MONTHLY RESPONSE EQUIPMENT INSPECTIONS

Inspections of Facility spill response equipment are conducted and documented in accordance with the SPCC monthly inspection discussed in Section 9.2. A list of Facility response equipment is provided on the monthly inspection template in Appendix D.

9.4 COMPLETED INSPECTION FORMS

Records of the inspection are kept electronically. Records of the inspections will be kept for a minimum of three years. The Action Item Reports will be given to the Site Operator or his designee for resolution.

Drainage of accumulated storm water from the main substation concrete containment dike is documented on the Storm Water Inspection Log, Record of Dike Drainage, provided in Appendix D. This log is maintained by the facility for a minimum of three years.

10.0 TRAINING AND DISCHARGE PREVENTION – 112.7(f)

Newly hired personnel responsible for handling or dispensing of process chemicals and finished products participate in spill prevention and control training program. All employees with job responsibilities relevant to oil spill and response participate in reviews and updates of spill prevention and control procedures at least annually.

10.1 PERSONNEL TRAINING – 112.7(f)(1)

All Cardinal Point Wind Site personnel annually complete a Safety and Environmental Training Program which includes SPCC Plan and spill response training.

10.2 EMERGENCY COORDINATOR – 112.7(f)(2)

The Site Operator of the Cardinal Point Wind Site is the designated Emergency Coordinator and is accountable for discharge prevention for the Site. The Site Operator of the Cardinal Point Wind Site (Emergency Coordinator) is responsible for spill prevention and control and for directing response to a site emergency. Environmental Services is responsible for reporting oil spills to the appropriate officials. A list of contacts, as may be required during an emergency, is provided on Appendix C in Appendix C.

10.3 SPILL PREVENTION BRIEFINGS – 112.7(f)(3)

During the annual training a spill prevention briefing will be provided to highlight known discharges, failures, and malfunctions that may have occurred at the Site and to discuss methods to prevent recurring spills. Capital Power Human Resources maintains an attendance record for individuals attending the annual training.

11.0 SECURITY – 112.7(g)

11.1 ACCESS CONTROL

The substation is surrounded by a chain link fence topped with barbed wire. The substation is typically unstaffed, but entrance gates are locked when a Facility representative is not at the substation. The substation is also monitored 24-hours per day, 7 days per week by Closed-Circuit Television (CCTV).

Access to the towers in the wind site is locked except during normal business hours when employees are arriving and working at the site.

The O & M Building will be surrounded by a chain link fence topped with barbed wire. Oil-containing drums are stored within the building and Oil Storage Building. The building is not continuously staffed, but entrance gates to the area and the building doors are locked when a Facility representative is not at the site. The perimeter of the O & M Building is also monitored 24-hours per day, 7 days per week by Closed-Circuit Television (CCTV).

11.2 FLOW DRAINS AND VALVES

The flow control drains/valves associated with the oil in the transformers are kept plugged/closed.

11.3 PUMP STARTER CONTROL

Electricity for unloading and loading pumps is regulated by switches located within secondary containment areas.

11.4 CONNECTIONS TO PIPELINES

There are no oil delivery pipelines at the Site. There is currently no out-of-service piping used for oil service. If piping used in the future is taken out-of-service or placed on standby for an extended period in the future, the connections will be securely capped or blank-flanged. Loading and unloading ports will be capped.

11.5 FACILITY LIGHTING

Sufficient lighting is generally provided throughout the area to allow for safe nighttime operation, spill detection, and the prevention or discovery of vandalism. In areas where lighting is not adequate, inspections are conducting using a flashlight.

12.0 RAIL CAR & TRUCK LOADING/UNLOADING AREAS - 112.7(h)

Gear and lubricating oil used to change oil in the wind turbine generator system are delivered to the Facility in 55-gallon drums via trucks only. Contents of the 55-gallon drums are transferred manually to smaller containers (e.g., 5 gallon). Cardinal Point personnel carry the small containers to the appropriate wind turbine to service the reservoirs. Drip pans and rags would be used to catch any small spills. If oil is spilled during the transfer, absorbent material will be applied and the oil-soaked absorbent will be properly disposed. Spills that occur will be contained within the immediate area due to the small volumes that are being transferred. Spill response equipment will be used to respond to releases that occur while pumping out the drums.

12.1 RACK AREA DRAINAGE – 112.7(h)(1)

There are no truck or railcar loading or unloading areas at the Site; therefore, this section is not applicable.

12.2 DISCONNECT WARNING – 112.7(h)(2)

There are no truck or railcar loading or unloading areas at the Site; therefore, this section is not applicable.

12.3 EXAMINATION OF TANK TRUCK AND RAIL CAR DRAINS – 112.7(h)(3)

There are no truck or railcar loading or unloading areas at the Site; therefore, this section is not applicable.

13.0 TANK ALTERATIONS – 112.7(i)

There are no field-constructed tanks at the Facility; therefore, this section is not applicable.

14.0 STATE AND LOCAL SPILL PREVENTION RULES – 112.7(j)

The Cardinal Point Wind Site is regulated by State rules as described in Section 1.3 of this SPCC Plan.

15.0 QUALIFIED OIL-FILLED OPERATIONAL EQUIPMENT – 112.7(k)

The owner or operator a facility with oil-filled operational equipment that meets qualification criteria may choose to implement alternate requirements for the qualified oil-filled operational equipment in lieu of general secondary containment as required in 40 CFR 112.7(c).

The qualification criteria are defined as follows:

> The owner or operator of a facility that has had no single discharge as described in 40 CFR 112.1(b) from an oil-filled operational equipment exceeding 1,000 gallons or no two discharges as described in 40 CFR 112.1(b) from any oil-filled operational equipment each exceeding 42 gallons within any 12 month period in the three years prior to the SPCC Plan certification date (other than discharges as described in 40 CFR 112.1(b) that are the result of natural disasters, acts of war or terrorism).

If secondary containment is not provided for qualified oil-filled operational equipment, the facility with qualified oil-filled operational equipment must:

1. Establish and document the facility procedures for inspections or a monitoring program to detect equipment failure and/or a discharge and

2. Prepare an oil spill contingency plan in accordance with 40 CFR 109 and provide a written commitment of manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful, unless the facility has prepared a Facility Response Plan in accordance with 40 CFR 112.20.

Oil-filled operational equipment at the Cardinal Point Wind Site has adequate secondary containment, as discussed in Section 5.1. Because the oil-filled operating equipment at the Cardinal Point Wind Site has sized or general secondary containment, the preparation of an oil spill contingency plan is unnecessary.

16.0 SPCC REQUIREMENTS FOR ONSHORE FACILITIES – 112.8

16.1 FACILITY DRAINAGE – 112.8(b)

Wind Turbines and Pad-Mounted Transformers

Storm water drainage from the wind turbines will generally flow south, north or east to the La Moine River or its tributaries, south to Killjordan Creek, or south, north or east to Troublesome Creek. An approximate summary of drainage pathways follows:

- **Wind Turbines T07, T08, T10 – T12, T15 – T24, T66, T67, and T69 – T71:** Storm water enters intermittent streams and generally flows south, north or east to the La Moine River or its tributaries.
- **Wind Turbines T27 – T33:** Storm water enters intermittent streams and flows south to Killjordan Creek.
- **Wind Turbines T35 – T39, T40 – T64:** Storm water enters intermittent streams and flows south, north or east to Troublesome Creek.

Other Oil Storage Areas

The substation is located on relatively flat land and consists of a compacted crushed rock surface. Surface drainage generally flows east-southeast within the substation and drains via overland flow. The area south of the substation is agricultural land.

The Oil Storage Building is located on relatively flat land and consists of paved and crushed rock cover. Surface drainage generally flows southeast on the east side of the Facility. Surface drainage on the west side of the Facility flows north northeast.

While unlikely, an uncontained release outside of the substation and Oil Storage Building could reach a tributary of La Harpe Creek which is located approximately 500 feet east of the Facility along 600 East Road.

16.1.1 Valves & Pumps on Diked Areas – 112.8(b)(1-2)

Secondary containment for the drum storage area is not exposed to storm water; however, the substation main transformer is within a concrete containment dike that is exposed to storm water. The concrete containment dike is equipped with an oil stop valve to prevent leakage. The valve is equipped with an oil

minder valve that shuts off in the event oil is detected in the sump. If the sump pump malfunctions, personnel need to manually pump out the containment area with a manually activated submersible pump. The accumulated storm water is inspected before discharge. If there is no indication of oil contamination, the water is discharged from the secondary containment area. If a drain valve is used to drain the containment area, the drain valve will be returned to the closed position upon completion of draining the containment area.

Records of storm water inspections prior to draining secondary containment areas are recorded on the Record of Dike Drainage form in Appendix D.

16.1.2 Facility Drainage from Undiked Areas – 112.8(b)(3)

Drainage from undiked areas is discussed in Sections 5.1.

16.1.3 Drainage Diversion System – 112.8(b)(4)

The Facility has adequate drainage structures from oil storage containers subject to SPCC regulations where petroleum products are stored to prevent storm water discharges contaminated with petroleum products from migrating off the Site; therefore, this section is not applicable.

16.1.4 Facility Drainage Systems – 112.8(b)(5)

Drainage waters are not treated at this Facility; therefore, this section is not applicable.

16.2 BULK STORAGE TANKS – 112.8(c)

Oil storage containers are constructed and used in accordance with good engineering practices and industry standards.

16.2.1 Tank Compatibility – 112.8(c)(1)

Containers are compatible with the materials stored and the environmental conditions to which they are expected to be subjected. None of the containers are used to store material at greater than atmospheric pressure.

16.2.2 Secondary Containment – 112.8(c)(2)

Secondary containment is provided for the drums at the Site as described in Section 5.1.

16.2.3 Draining Tank Farm Areas – 112.8(c)(3)

Refer to Section 16.1.1 for a discussion of secondary containment drainage.

16.2.4 Buried Metallic Storage Tanks – 112.8(c)(4)

There are no buried storage tanks installed at the Site for oil storage; therefore, this section is not applicable.

16.2.5 Partially Buried Storage Tanks – 112.8(c)(5)

There are no partially buried storage tanks at the Site for oil storage; therefore, this section is not applicable.

16.2.6 Periodic Integrity Testing – 112.8(c)(6)

Formal visual tank inspections are performed on a monthly basis to assess tank integrity. Deficiencies are noted and are reported to the Emergency Coordinator. The visual inspection includes, but is not limited to, the following items:

- Evidence of leaks or spills
- Corrosion deterioration
- Foundation deterioration
- Containment structures

Brittle fracture evaluations are required for the field-erected tanks storing oils that undergo major repairs or alterations. Because the tanks at the Facility are shop-fabricated, brittle fracture evaluations are not applicable to the storage tanks at the Facility.

Tank integrity testing will be performed in accordance with the Steel Tank Institute (STI) Standard SP001 as follows:

- STI SP001 requires monthly inspections of drum storage areas. The Cardinal Point Wind Site's formal monthly visual inspections (described in Section 9.2) are consistent with the requirements of the monthly inspections described in STI SP001.

16.2.7 Internal Heating Coils – 112.8(c)(7)

There are no internal heating coils on the tanks at the Site; therefore, this section is not applicable.

16.2.8 Fail-Safe Engineering – 112.7(c)(8)

The possibility of a significant discharge is reduced by the following equipment/procedures:

- The physical presence of trained personnel who have manual control over movements of oil products.
- Regular inspections of drum storage areas.
- Manual gauging of oil-filled electrical equipment prior to filling
- A release from one of the transformers would be identified due to a loss of power at the wind turbine as described in Section 5.1.
- The main transformer concrete containment dike is equipped with an oil stop valve to prevent leakage. The valve is equipped with an oil minder valve that shuts off in the event oil is detected in the sump.

16.2.9 Effluents into Navigable Waters – 112.8(c)(9)

There is no effluent treatment system at the Site; therefore, this section is not applicable.

16.2.10 Correction of Tank Deficiencies – 112.8(c)(10)

There are no tanks at the Site; therefore, this section is not applicable.

16.2.11 Mobile/Portable Oil Storage Tank – 112.8(c)(11)

Drum storage areas are located at the Site as discussed in Section 5.1 and shown on Figure 3.

16.3 TRANSFER OPERATIONS, PUMPING, & FACILITY PROCESS – 112.8(d)

16.3.1 Buried Piping Installations – 112.8(d)(1)

There is no operational buried piping for petroleum products at the Site; therefore, this section is not applicable.

16.3.2 Out of Service Piping – 112.8(d)(2)

There is no oil-containing piping at the Site. Requirements regarding pipe supports are not applicable to this Facility.

16.3.3 Piping Support Design – 112.8(d)(3)

There is no oil-containing piping at the Site. Requirements regarding pipe supports are not applicable to this Facility.

16.3.4 Inspection of Valves and Piping – 112.8(d)(4)

There is no oil-containing piping at the Site. If piping for oil use is installed at the Site, it will be integrity tested when constructed, repaired, or replaced. The piping will also be included in the monthly inspections described in Section 9.2. During the monthly inspections, the condition of piping, valves, and flange connections in oil service will be evaluated.

If buried piping for oil use is installed at the Site, it will be integrity tested when constructed, repaired, or replaced.

16.3.5 Aboveground Piping – 112.8(d)(5)

There is aboveground piping, approximately 1 foot in length, between the transformer containment pit and the oil stop valve. There is no hazard to piping or oil-filled equipment from vehicular traffic.

16.4 ONSHORE OIL PRODUCTION FACILITY DRAINAGE – 112.9

The Cardinal Point Wind Site is not an oil production facility; therefore, the requirements of this section do not apply.

16.5 ONSHORE OIL DRILLING AND WORKOVER FACILITIES – 112.10

The Cardinal Point Wind Site is not an oil drilling or workover facility; therefore, the requirements of this section do not apply.

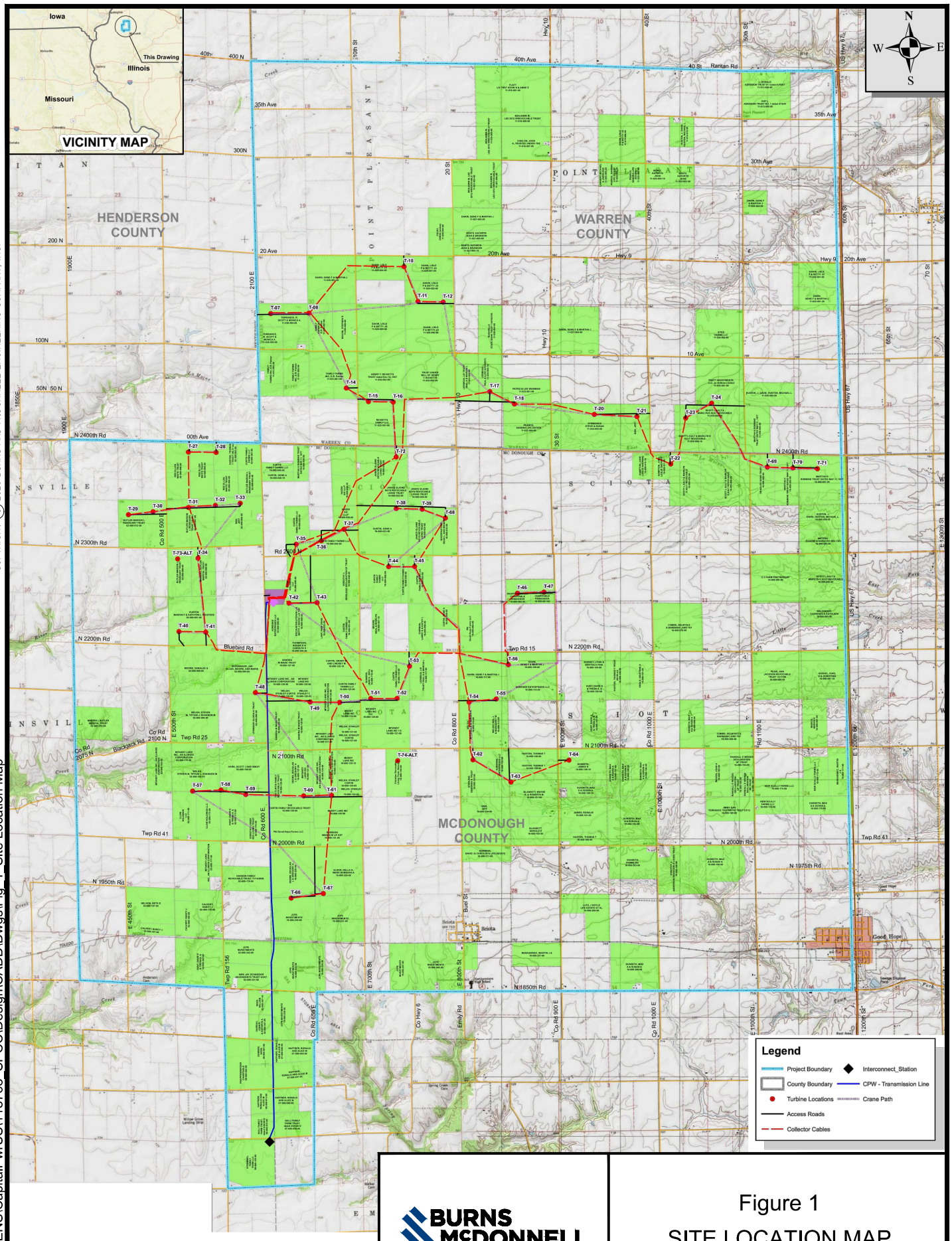
16.6 OFFSHORE OIL DRILLING, PRODUCTION, WORKOVER FACILITIES – 112.11

The Cardinal Point Wind Site is not an oil drilling, production, or workover facility; therefore, the requirements of this section do not apply.

16.7 ANIMAL FATS AND OILS – 112.12

The Cardinal Point Wind Site does not store, produce, or transport animal fats or oils; therefore, the requirements of this section do not apply.

Appendix A
Figure 1, Site Location Map
Figure 2, Wind Farm Site Plan
Figure 3, O&M Building Site Plan
Figure 4, Substation Site Plan



Z:\Clients\ENS\CapitalPwrUS\118768_SPCC\Design\CADD\Dwgs\Fig_1_Site Location Map

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Figure 1

SITE LOCATION MAP
CARDINAL POINT WIND SITE

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Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Source: Esri, NWI, Stantec, Census Streets, and Burns & McDonnell Engineering Company, Inc.

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Figure 2
Wind Site Plan
Cardinal Point
Capital Power
Page 1 of 6

Issued: 11/26/2019

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Figure 2
Wind Site Plan
Cardinal Point
Capital Power
Page 2 of 6

Source: Esri, NWI, Stantec, Census Streets, and Burns & McDonnell Engineering Company, Inc.

Issued: 11/26/2019

Project Area
Structure
Turbine
Proposed T-Line
Collection
Crane Path
Access Roads
Delineated Waterway
Delineated Wetland
NHD Feature
NWI
SHPO Avoidance Site
Staking Area
Potential Staking Area

1 2 3 4 5 6

NORTH

0 1,000 2,000
Scale in Feet

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Figure 2
Wind Site Plan
Cardinal Point
Capital Power
Page 3 of 6

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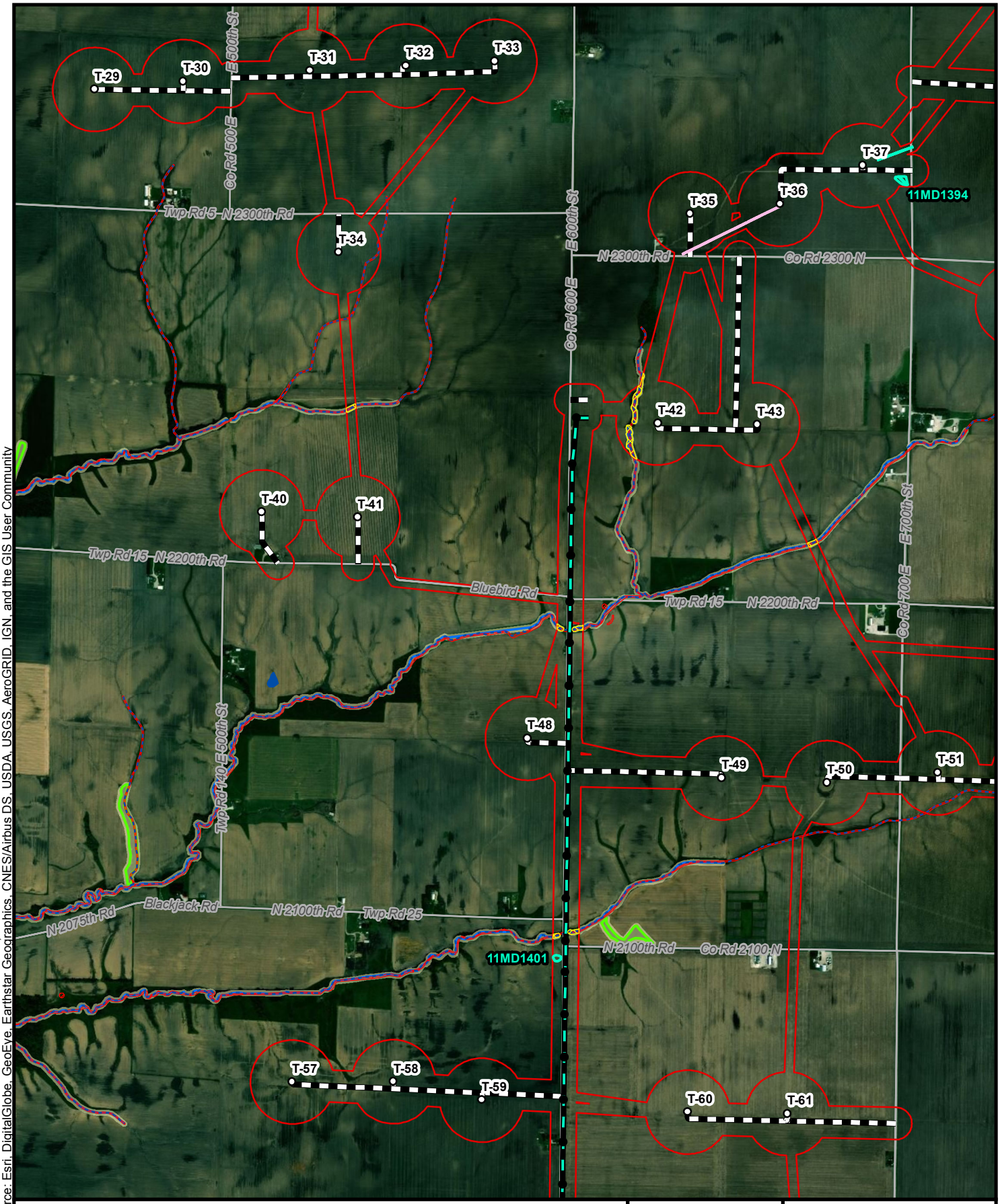

Project Area
Structure
Turbine
Proposed T-Line
Collection
Crane Path
Access Roads
Delineated Waterway
Delineated Wetland
NHD Feature
NWI
SHPO Avoidance Site
Staking Area
Potential Staking Area

1 2 3 4 5 6

NORTH

0 1,000 2,000
Scale in Feet

BURNS McDONNELL

Figure 2
Wind Site Plan
Cardinal Point
Capital Power
Page 4 of 6

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Project Area
Structure
Turbine
Proposed T-Line
Collection
Crane Path
Access Roads
Delineated Waterway
Delineated Wetland
NHD Feature
NWI
SHPO Avoidance Site
Staking Area
Potential Staking Area

1 2 3 4 5 6

NORTH

0 1,000 2,000
Scale in Feet

BURNS McDONNELL

Figure 2
Wind Site Plan
Cardinal Point
Capital Power
Page 5 of 6

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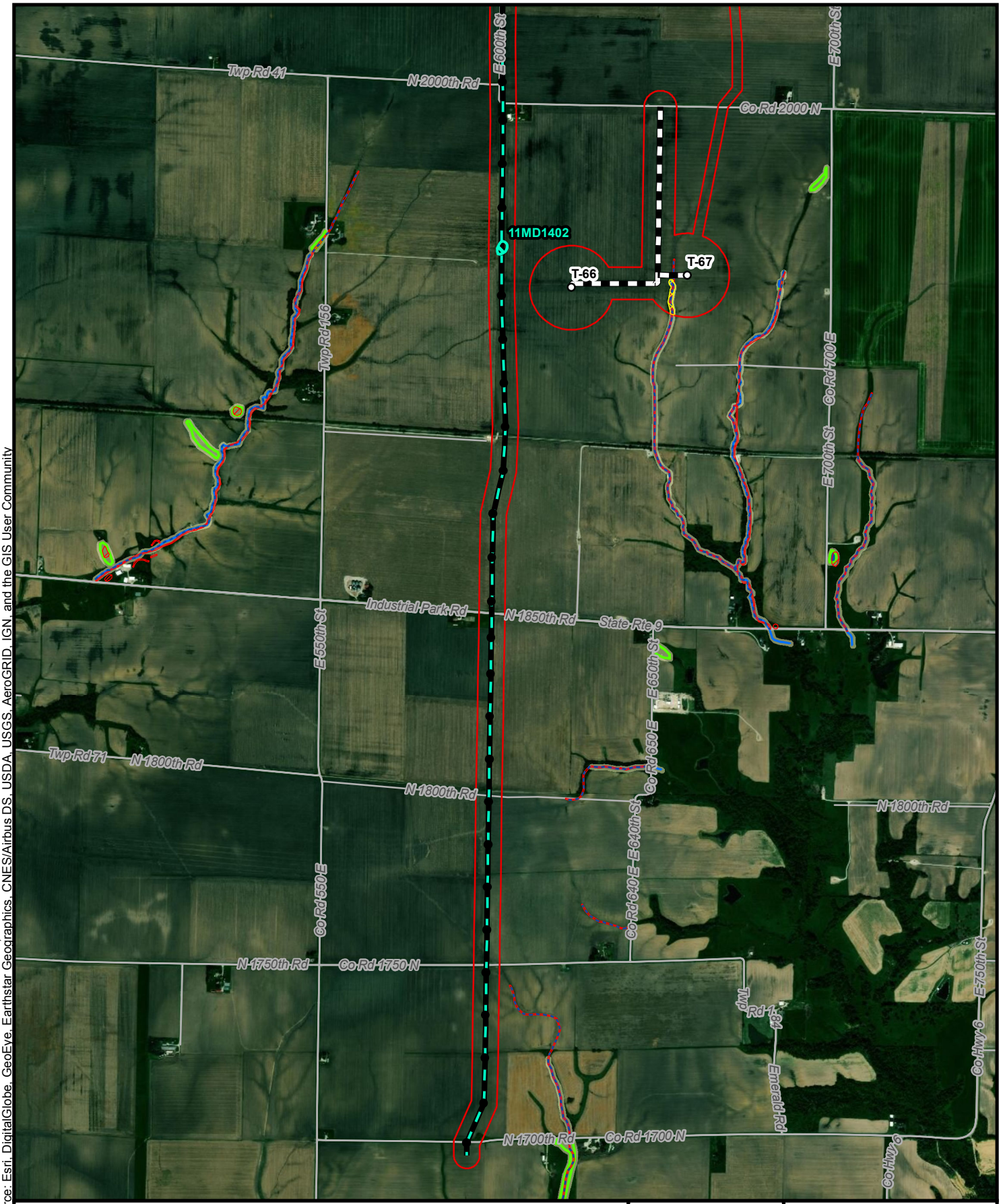

Figure 2
Wind Site Plan
Cardinal Point
Capital Power
Page 6 of 6

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Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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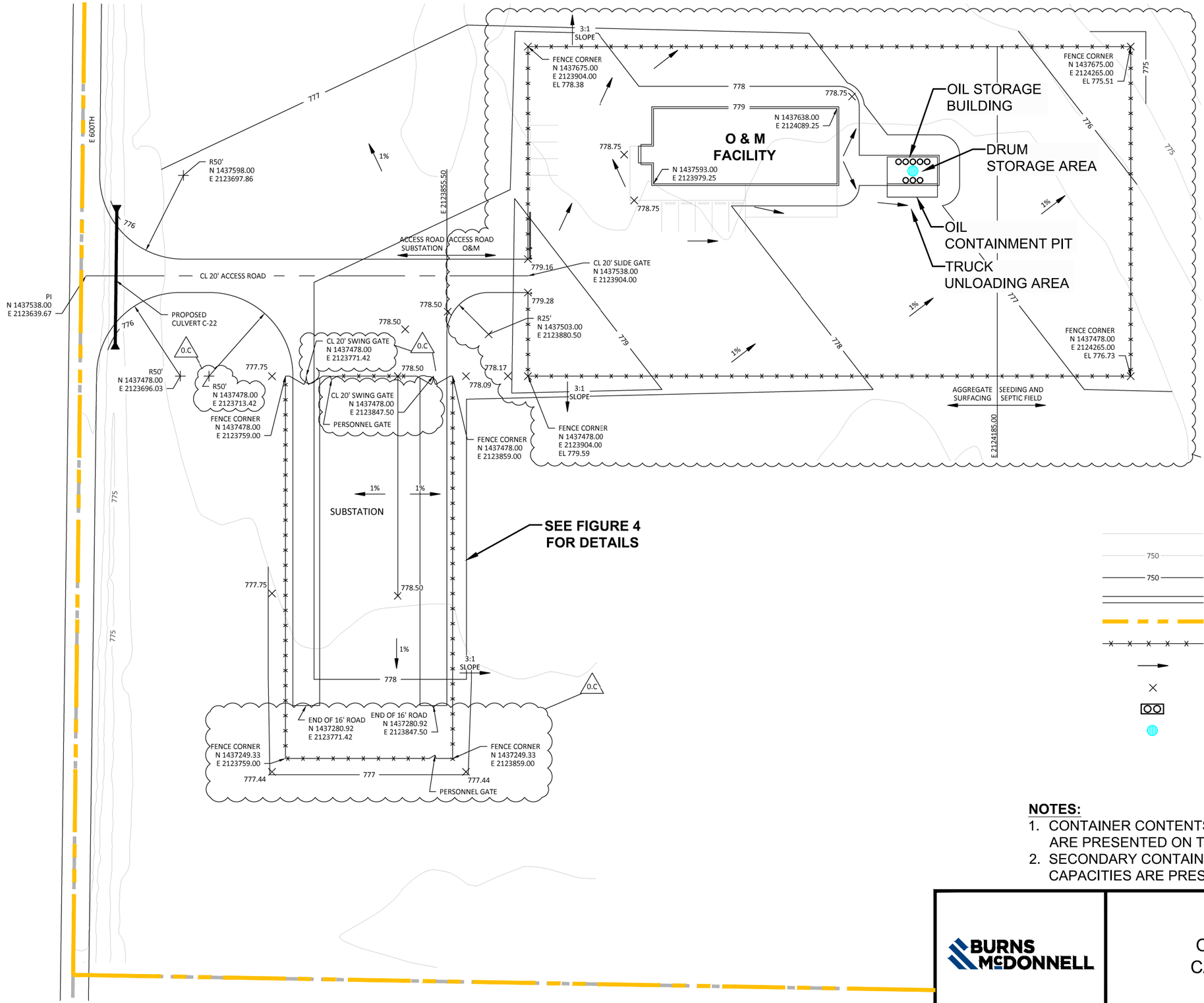

LEGEND

- EXISTING MINOR 1' CONTOURS
- EXISTING MAJOR 5' CONTOURS
- FINISH 1' CONTOURS
- COUNTY ROAD
- PROPERTY LINE
- CHAIN LINK FENCE
- DIRECTION OF FLOW - DRAINAGE
- SPOT ELEVATION MARKER
- DRUM STORAGE AREA
- GRATE

NOTES:

1. CONTAINER CONTENTS AND CAPACITIES ARE PRESENTED ON TABLE 1 IN APPENDIX B.
2. SECONDARY CONTAINMENT TYPES AND CAPACITIES ARE PRESENTED ON TABLE 2 IN APPENDIX B.

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Figure 3

O & M BUILDING SITE PLAN
CARDINAL POINT WIND SITE

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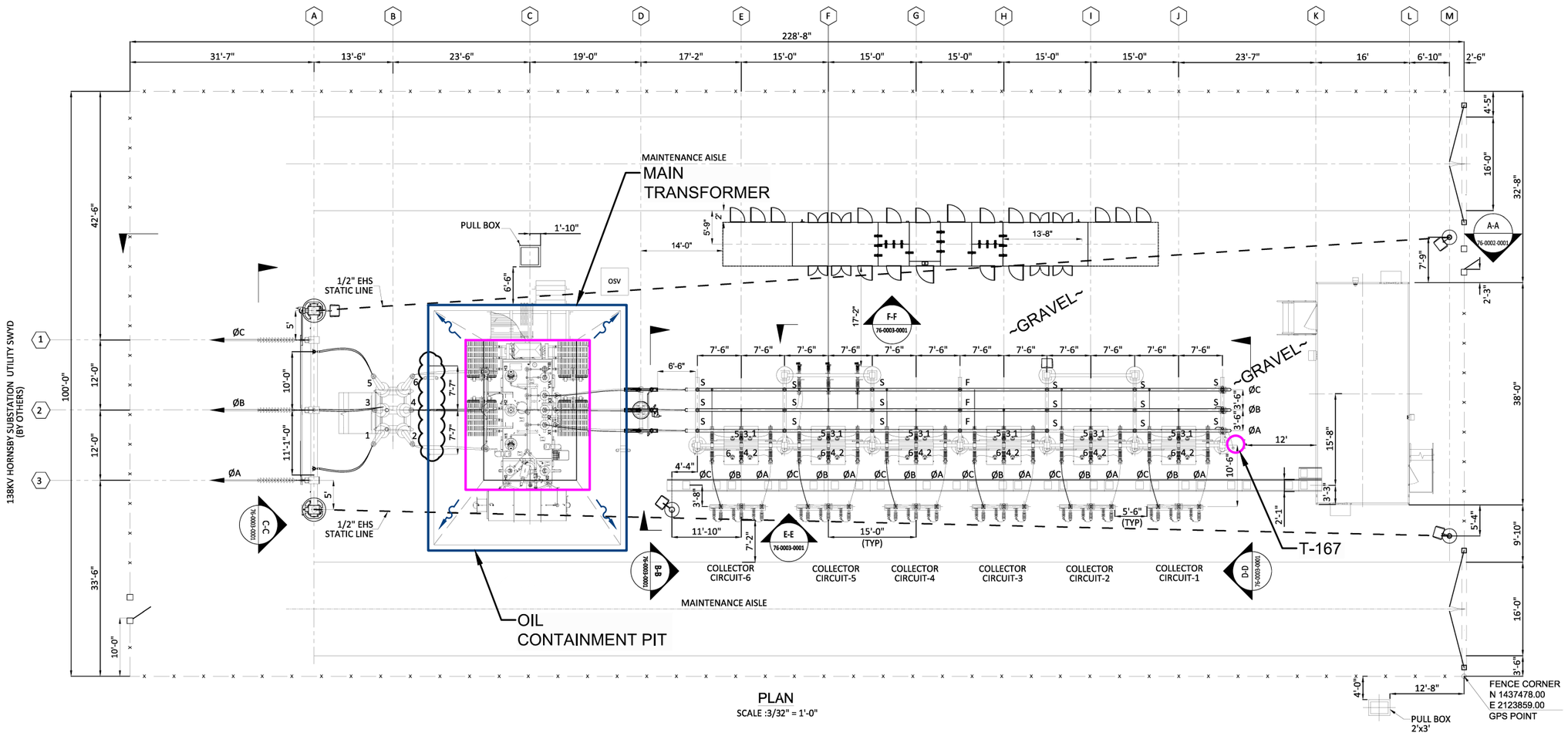
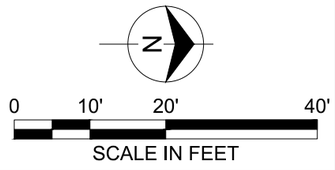


PLAN
SCALE :3/32" = 1'-0"

LEGEND

	NEW
	FUTURE
x	FENCE
	CABLE TRENCH
S	SLIP
F	FIXED
EX	EXPANSION
FFL	FINISHED FOUNDATION LEVEL
FGL	FINISHED GROUND LEVEL
SSXX	STRUCTURE CALL OUT
XX	MATERIAL CALL OUT



NOTES:

1. CONTAINER CONTENTS AND CAPACITIES ARE PRESENTED ON TABLE 1 IN APPENDIX B.
2. SECONDARY CONTAINMENT TYPES AND CAPACITIES ARE PRESENTED ON TABLE 2 IN APPENDIX B.

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Figure 4

SUBSTATION SITE PLAN
CARDINAL POINT WIND SITE

Z:\CLIENTS\ENS\CAPITALPWRUS\118768_SPCC\DESIGN\CADD\DWGS\FIG_4_SUBSTATION SITE PLAN

Appendix B
Table 1, Container and Equipment Contents and Capacity
Table 2, Secondary Containment Calculations
Table 3, Spill Prediction

TABLE 1
CONTAINER AND EQUIPMENT CONTENTS AND CAPACITY
CARDINAL POINT WIND FARM
SCIOTA, ILLINOIS

Container	Location	Material Stored	Total Quantity (Gallons)	Tank Configuration	Secondary Containment Type	Secondary Containment Capacity (gallons)
Main Power Transformer	Substation	Mineral Oil	12,144	Oil-Filled Equipment	Concrete Containment Dike	13,884
T-167 (Distribution Transformer)	Substation	Mineral Oil	83	Oil-Filled Equipment	Gravel	Most Likely Spill Scenario (10 gallons)
New Oil Drums (up to 20)	O & M Building	Turbine Gearbox Oil, Yaw Drive Oil, Yaw Pitch Drive Oil, Bearing Grease	1,100	Steel Drums	Oil Containment Basin	349.5
Gear Box (60)	Wind Turbine Nacelle	Gear Oil	94 each (5,640, total)	Oil-Filled Equipment	Wind Turbine	Most Likely Spill Scenario (10 gallons)
Pad-Mounted Transformer (60)	Base of Wind Turbine	Mineral Oil	549 each (32,940, total)	Oil-Filled Equipment	Gravel	Most Likely Spill Scenario (10 gallons)
Total Quantity (Gallons): 51, 907						

TABLE 2
SECONDARY CONTAINMENT CALCULATIONS
CARDINAL POINT WIND FARM
SCIOTA, ILLINOIS

Container or Transformer ID	Quantity Stored (Gallons)	Secondary Containment Type	Containment Dimensions (ft)	Displacement (ft)	Secondary Containment Capacity (gallons)	Containment Needed (gallons)	Containment Adequate?
Main Power Transformer Containment	12,144	Concrete Containment	33' x 41' x 2.5'	24' x 16' x 2.5'	13,884	12,144	YES
Oil Storage Building (next to O & M Building)	1,100 (max 20 drums)	Oil Containment Basin	392 ft^2 x 0.125'	8.28 ft^3	349.5	55	YES

TABLE 3
SPILL PREDICTION
CARDINAL POINT WIND FARM
SCIOTA, ILLINOIS

Spill Scenario	Maximum Potential Spill Quantity	Potential Spill Flow Rate	Potential Flow Direction
Overturned or Leaking Drum	55 gallons	Instantaneous	A release from one of the 55-gallon drums stored within the Oil Storage Building will be contained within the spill containment pallet in the Oil Storage Building. The Oil Storage Building also has a drain which discharges to an oil containment pit beneath the building. The oil containment pit will contain the oil until a third-party vendor arrives to pump out the product. It is unlikely that a release will escape the building.
Leaking or Ruptured Substation Transformer	12,144 gallons	Instantaneous	A release from the transformer will be contained in the concrete containment pit. An uncontained release could flow east-southeast within the substation and drain offsite via overland flow. An uncontained release will flow across the crushed rock surfacing of the substation, toward a pasture located east of the substation.
Leaking or Ruptured Pad-Mounted Transformer	549 gallons Most likely spill scenario: 10 gallons	Instantaneous	A release from the main body of a pad-mounted transformer will be contained in the box pad. The crushed rock surrounding the transformer, in combination with spill response equipment, will contain the most likely release from the transformer fins. Uncontained releases could follow one of several spill flow pathways depending on the wind turbine location. Refer to Section 16.1.
Leaking Oil-Filled Equipment in Nacelle	94 gallons	Instantaneous	A release from oil-filled equipment in the nacelle will be contained within the nacelle. An uncontained release would likely flow into the turbine structure. While unlikely, an uncontained release outside of the turbine structure could follow one of several spill flow pathways depending on the wind turbine location. Refer to Section 16.1.

Appendix C
Table 4, Oil Spill Response Immediate Actions
Table 5, Notification Action Summary
Table 6, Emergency Response Notification Lists
Table 7, Spill Response Notification Form
Table 8, Disposal Plan

TABLE 4
OIL SPILL RESPONSE IMMEDIATE ACTIONS
CARDINAL POINT WIND FARM
SCIOTA, ILLINOIS

ACTION	DESCRIPTION (ACTIONS MAY NOT BE LIMITED TO THESE STEPS)
1). Stop the source of the spill and shut off ignition sources.	Act quickly to shut off pumps, close valves, etc. Follow all safety procedures for emergency shutdown of equipment. Shut off motors and electrical circuits, extinguish ignition sources
2) Initiate containment of the spill.	Contain with absorbents, booms, or earthen materials.
3) Notify Cardinal Point Wind Site personnel.	Contact other on-duty personnel and notify the Site Operator, Cardinal Point Wind Site, or his designee. The Site Operator will follow the procedures in Table 5, Appendix C, and notify Environmental Services, if required. Environmental Services is responsible for notifying local, state, and federal agencies.
4) Notify the spill response contractor.	If necessary, the acting QI should notify a spill response contractor as listed in Table 6, Appendix C.
5) Assess the characteristics of the release:	• Type of liquid released • Hazards associated with the liquid, • Volume and rate of discharge • Nature of liquid • If the spill has entered a waterway or drain • Can the spill be contained
6) Determine if a spill is potentially hazardous.	Will it adversely affect: • Plant personnel • Environment • Integrity of the storage tanks • Neighboring facilities • Surrounding communities
7) If a threat is present, initiate appropriate actions.	• Stop hot work at the Facility. • Announce a possible shut down or evacuation over the intercom and two-way radios • Evacuate personnel not involved with mitigation and danger abatement. • Notify civil authorities to secure the area, reroute traffic, and evacuate surrounding facilities or residences, if necessary.
8) Determine if evacuation is necessary.	The following types of spills could require evacuation: • A spill of highly evaporative materials • A spill of a highly flammable substance or a hazard due to other substances in the immediate area • Large spills that cannot be immediately contained
9) Direct the response	• Facility Response Team • Fire department • Agencies

TABLE 5
NOTIFICATION ACTION SUMMARY
CARDINAL POINT WIND FARM
SCIOTA, ILLINOIS

UNLESS NOTED OTHERWISE, NOTIFICATIONS ARE TO BE MADE BY THE EMERGENCY COORDINATOR AND ONLY AFTER THE EMERGENCY CONDITIONS RELATED TO THE RELEASE HAVE BEEN IMPLEMENTED. THIS RESTRICTION IS NECESSARY TO PREVENT MISINFORMATION AND FOR THE NOTIFICATIONS TO BE PROPERLY CONDUCTED.

Spills to Surface Water

1. Call the National Response Center at 1-800-424-8802. State as follows:
   a. This is a spill report.
   b. Give your name and the company name.
   c. Give location of spill.
   d. Describe nature of spill, type of product, and estimate size of spill. If accurate, note that "It is believed" that the spill has not and may not reach surface waters.
   e. Describe type of action taken thus far, type of assistance or equipment needed.

2. Contact official of the Illinois Emergency Management Agency (IEMA) if the NRC has been contacted. The IEMA may be contacted within Illinois at 1-800-782-7860 and outside of Illinois at 1-217-782-7860.

3. A release that is reported to the IEMA will also be reported to the Warren County Local Emergency Planning Committee (LEPC) at 1-309-333-0567 and/or the McDonough County LEPC at 1-309-836-7800.

4. For releases of over 1,000 gallons, or more than two releases greater than 42 gallons each within a 12-month period that cause a sheen on surface waters or shoreline, or sludge or emulsion in waters, submit the SPCC Plan to the Regional EPA office. Provide a description of the spill and detail corrective action taken to prevent a recurrence.

Spills to Land

1. Contact official of the Illinois Emergency Management Agency (IEMA) if more than 25 gallons of petroleum product are released to the soil. The IEMA can be contacted at 1-800-782-7860.

2. A release that is reported to IEMA will also be reported to the Warren County LEPC at 1-309-333-0567 and/or the McDonough County LEPC at 1-309-836-7800.

TABLE 6
EMERGENCY RESPONSE NOTIFICATION LIST
CARDINAL POINT WIND FARM
SCIOTA, ILLINOIS

Agency Notification		**Phone Number**
National Response Center (NRC)		800-424-8802
State of Illinois (Emergency Spill Response) Illinois Emergency Management Agency (IEMA)		IEMA Main Office 217-782-2700 24-hour Response 800-782-7860
Warren County Local Emergency Planning Committee (LEPC)		309-333-0567
McDonough County LEPC		309-836-7800
Environmental Protection Agency Region V (On-Scene Coordinator (OSC))		312-353-2318
Company Notification	**Name**	**Phone Number**
Site Operator, Cardinal Point Wind Site	Joe Glaze	Work: 780 392-5538 Cell: 309 255-0012
Environmental Specialist, Capital Power	Joseph Griffiths	Cell: 630 488-5593
Renewables Manager, Capital Power	Sandeep Sharma	Work: 780 392-5277 Cell: 309 255-0012
Site Supervisor	TBD	TBD
Outside Services	**Name**	**Phone Number**
Local Fire Department – Macomb Fire Department (for threat to human health)		911 or 309-836-7800
Local Police Department (for threat to human health)		911
McDonough County Sheriff's Department		309-833-2323
Warren County Sheriff's Department		309-734-8506
Spill Response Cleanup Contractor	Clean Harbor, currently; To be determined after COD.	515-306-220 (BV's contractor)

TABLE 7
SPILL RESPONSE NOTIFICATION FORM
CARDINAL POINT WIND FARM
SCIOTA, ILLINOIS

Checklist completed by: _____
(Name)

1)	Type of material discharged:
2)	Estimate of total quantity discharged:
3)	Time/date of discharge:
4)	Location of discharge:
5)	Source of discharge:
6)	Cause of discharge: Is Cardinal Point responsible? Yes____ No____
7)	Were there any injuries or casualties? Yes____ No____
8)	Does the discharge present a danger to employees or the community? Yes____ No____
9)	Where did the release go?
10)	Did it reach the storm sewer? Yes____ No____ If "Yes", what is the nearest surface water (e.g., stream, river, pond, lake)?
11)	Is material still being released? Yes____ No____
12)	Was the release contained? Yes____ No____ If not, when will it be?
13)	Was spilled material recovered, cleaned up or neutralized? Yes____ No____ How much?
14)	What is the affected environmental medium (air, water, soil)?

Environmental Services Department or Agency Employee Contacted (if applicable)	Employee Title	Agency Report Number (if Applicable)	Date/Time	Comments

TABLE 8
DISPOSAL PLAN
CARDINAL POINT WIND FARM
SCIOTA, ILLINOIS

Petroleum-Based Lubricants

Oils will be contained inside the Oil Storage Building, O & M Building or outside using sorbent and booms. Recovered liquids are transported to temporary storage tanks where they can be reused. Reclaimed product will be recycled. Materials (such as absorbents and earthen materials) contaminated with oil may be tested prior to disposal but such materials are not typically a hazardous waste. These contaminated materials shall be disposed of in accordance with local, state, and federal regulations.

Spent Materials

The following materials, when mixed with oil, are typically considered non-hazardous and can be disposed of as solid waste:

- Contaminated equipment, including drums, tank parts, valves, and shovels
- Contaminated soil
- Contaminated personal protective equipment (PPE)
- Contaminated absorbents

(This Facility generally would not use chemicals or decontaminating solutions.)

All recovered materials will be properly transported and disposed

Appendix D
Monthly Inspection Log
Storm Water Inspection Log
Personnel Training Record

MONTHLY SPCC INSPECTION FORM
CARDINAL POINT WIND FARM
SCIOTA, ILLINOIS

Oil Storage or Usage Location	Signs of Leaks (Stains, Drips, Discoloration), Corrosion, Cracks, Settling, Erosion, Debris (Check √ = OK or X = NOT OK)				Comments	Action to be Taken
	Container/Tank	Piping/Hoses	Secondary Containment	Foundation		
Substation - Main Transformer (Outside)						
Substation – T-167 (Outside)				NA		
New Oil Drums – Oil Storage Building (Inside)		NA		NA		
Wind Turbine, T-07 and Transformer						
Wind Turbine, T-08 and Transformer						
Wind Turbine, T-10 and Transformer						
Wind Turbine, T-11 and Transformer						
Wind Turbine, T-12 and Transformer						
Wind Turbine, T-14 and Transformer						
Wind Turbine, T-15 and Transformer						
Wind Turbine, T-16 and Transformer						
Wind Turbine, T-17 and Transformer						
Wind Turbine, T-18 and Transformer						
Wind Turbine, T-19 and Transformer						
Wind Turbine, T-20 and Transformer						
Wind Turbine, T-21 and Transformer						
Wind Turbine, T-22 and Transformer						
Wind Turbine, T-23 and Transformer						
Wind Turbine, T-24 and Transformer						

Oil Storage or Usage Location	Signs of Leaks (Stains, Drips, Discoloration), Corrosion, Cracks, Settling, Erosion, Debris (Check √ = OK or X = NOT OK)				Comments	Action to be Taken
	Container/Tank	Piping/Hoses	Secondary Containment	Foundation		
Wind Turbine, T-27 and Transformer						
Wind Turbine, T-28 and Transformer						
Wind Turbine, T-29 and Transformer						
Wind Turbine, T-30 and Transformer						
Wind Turbine, T-31 and Transformer						
Wind Turbine, T-32 and Transformer						
Wind Turbine, T-33 and Transformer						
Wind Turbine, T-34 and Transformer						
Wind Turbine, T-35 and Transformer						
Wind Turbine, T-36 and Transformer						
Wind Turbine, T-37 and Transformer						
Wind Turbine, T-38 and Transformer						
Wind Turbine, T-39 and Transformer						
Wind Turbine, T-40 and Transformer						
Wind Turbine, T-41 and Transformer						
Wind Turbine, T-42 and Transformer						
Wind Turbine, T-43 and Transformer						
Wind Turbine, T-44 and Transformer						
Wind Turbine, T-45 and Transformer						

Oil Storage or Usage Location	Signs of Leaks (Stains, Drips, Discoloration), Corrosion, Cracks, Settling, Erosion, Debris (Check √ = OK or X = NOT OK)				Comments	Action to be Taken
	Container/Tank	Piping/Hoses	Secondary Containment	Foundation		
Wind Turbine, T-46 and Transformer						
Wind Turbine, T-47 and Transformer						
Wind Turbine, T-48 and Transformer						
Wind Turbine, T-49 and Transformer						
Wind Turbine, T-50 and Transformer						
Wind Turbine, T-51 and Transformer						
Wind Turbine, T-52 and Transformer						
Wind Turbine, T-53 and Transformer						
Wind Turbine, T-54 and Transformer						
Wind Turbine, T-55 and Transformer						
Wind Turbine, T-56 and Transformer						
Wind Turbine, T-57 and Transformer						
Wind Turbine, T-58 and Transformer						
Wind Turbine, T-59 and Transformer						
Wind Turbine, T-60 and Transformer						
Wind Turbine, T-61 and Transformer						
Wind Turbine, T-62 and Transformer						
Wind Turbine, T-63 and Transformer						
Wind Turbine, T-64 and Transformer						

Oil Storage or Usage Location	Signs of Leaks (Stains, Drips, Discoloration), Corrosion, Cracks, Settling, Erosion, Debris (Check √ = OK or X = NOT OK)				Comments	Action to be Taken
	Container/Tank	Piping/Hoses	Secondary Containment	Foundation		
Wind Turbine, T-66 and Transformer						
Wind Turbine, T-67 and Transformer						
Wind Turbine, T-68 and Transformer						
Wind Turbine, T-69 and Transformer						
Wind Turbine, T-70 and Transformer						
Wind Turbine, T-71 and Transformer						

Is quantity, condition, and location of emergency response equipment listed in Appendix D, Table 9 adequate? _____

If no, identify required changes and the date implemented. _____

Inspector: _____ Date Completed: _____

PERSONNEL TRANING RECORD
CARDINAL POINT WIND FARM
SCIOTA, ILLINOIS

Cardinal Point recognizes the importance of safety and environmental protection by requiring facility personnel to be trained at initial employment and annually thereafter on the Spill Prevention Control and Countermeasure (SPCC) Plan.

Print and sign your name below to confirm that you have been trained and understand the SPCC Plan.

Date	Type of Training[1]	Instructor	Description of Training Course Content
			SPCC Plan

Participating Personnel (Printed Name)	Signature

1) Training courses include initial and annual spill response training.

STORM WATER INSPECTION LOG
RECORD OF DIKE DRAINAGE
CARDINAL POINT WIND FARM
SCIOTA, ILLINOIS

This record must be completed when rainwater from the transformer containment dike is drained into an open watercourse, lake, or pond, via overland flow. The oil stop valve must normally be sealed in closed position and opened and resealed following drainage under responsible supervision. Records are maintained with the SPCC Plan at the field office.

Date	Area	Presence of Oil	Time Started	Time Finished	Signature

Appendix E
Table 9, Emergency Response Equipment

TABLE 9

EMERGENCY RESPONSE EQUIPMENT

Up-to-date signed contracts for specialized clean-up assistance have been made with emergency response contractors previously listed in this SPCC plan. In the event of an oil or chemical spill, the Cardinal Point Wind Site has material and equipment available for use on limiting the spread of petroleum or other chemicals. This equipment is always available and can be immediately dispatched 24 hours per day. Oil spill kits (in a 95-gallon drum) have been stationed at the following locations:

- Operation and Maintenance Building

Appendix F
Certification of Substantial Harm Determination Form

Certification of Substantial Harm Determination Form

Facility Name: Cardinal Point Wind Site
Facility Address: 22519 E. 600th Street, Sciota, Warren and McDonough Counties, Illinois 61457

☐ Yes ☒No Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?

☐ Yes ☒ No Does the facility have a total oil storage capacity greater than or equal to one million gallons and does the facility lack adequate secondary containment* that is sufficiently large to contain the capacity of the largest aboveground storage tank plus sufficient freeboard to allow for precipitation within any aboveground storage tank area?

☐ Yes ☒ No Does the facility have a total oil storage capacity greater than or equal to one million gallons and is the facility located at a distance* such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments?

☐ Yes ☒ No Does the facility have a total oil storage capacity greater than or equal to one million gallons and is the facility located at a distance* such that a discharge form the facility would shut down a public drinking water intake, which is analogous to a public water system as described at 40 CFR 143.2 (c)?

☐ Yes ☒ No Does the facility have a total oil storage capacity greater than or equal to one million gallons and has the facility experienced a reportable oil spill exceeding 10,000 gallons within the last five years?

*Explanations of the above referenced terms can be found in Appendix C of 40 CFR Part 112. If an alternative formula to the ones contained in Attachment C-III is used to establish the appropriate distance to sensitive environments or drinking water intakes, documentation of the reliability and analytical soundness of the formula must be attached to this form.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining information, I believe that the submitted information is true, accurate, and complete.

Signature	Title
Name (please type or print)	Date