
Sunflower Wind Project, LLC

Sunflower Wind
Hebron, North Dakota

**SPILL PREVENTION, CONTROL, AND
COUNTERMEASURE PLAN**

PREPARED FOR:

Sunflower Wind Project, LLC
Sunflower Wind Project

PREPARED BY:

GZA GeoEnvironmental, Inc.
Bedford, New Hampshire

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Sunflower Wind Project

Spill Prevention, Control, and Countermeasure Plan

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EMERGENCY CONTACT LIST
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INTERNAL CONTACTS		CONTACTED (date/time/who/by whom)
<i>Primary Emergency Coordinator</i> Raitis Sipols, Site Supervisor	Office: (701) 878-5009 Cell: (815) 383-8162	
<i>Alternate Emergency Coordinator</i> Joby Black, Substation Coordinator	Office: (701) 878-5010 Cell: (312) 320-7431	
<i>Alternate Emergency Coordinator</i> E.ON Dispatch Center 24-Hour Monitoring	Primary: (512) 482-8008	
SPILL RESPONSE CONTRACTOR (for major spill response)		
Clean Harbors, Arnegard, ND	Local: (701) 586-3170 Toll-Free: 800-645-8265 (800- OIL-TANK)	
LOCAL / STATE AGENCIES		
Emergency Services (Medical Emergency/Fire)	911 (or see below for specific numbers if 911 is disabled)	
City of Hebron Fire Department (non-emergency)	(701) 878-9016	
City of Hebron Police Department (non-emergency)	(701) 878-4601	
CHI St. Joseph's Health – Dickinson, ND	(701) 456-4000	
North Dakota Oil Spill Hotline (24 hours)	(800) 472- 2121	
North Dakota Department of Health	(701) 328-5210	
FEDERAL AGENCIES		
National Response Center (NRC)	(800) 424-8802	
EPA Region 8	(800) 227-8917	

When a spill strikes.....



1. Assess the risk:

From the moment a spill occurs and throughout the response, determine the risks that may affect human health, the environment, and property. Always put safety FIRST. If possible, identify the spilled material, its source, and determine how much was spilled. Identify potential receptors (drains, etc). Report all spills immediately to the Primary Emergency Coordinator. The Primary Emergency Coordinator will contact emergency response agencies, or advise you to do so. Consider the need to evacuate area where spill has occurred.



2. Contact Site Emergency Coordinator

If not present when the spill is initially observed, the Primary Emergency Coordinator or Alternate Emergency Coordinator should be immediately contacted. The Coordinator shall then direct actions at the site relative to the spill.



3. Extinguish all sources of ignition

Assess potential fire hazards. Extinguish or remove sources of flame or sparks.



4. Select personal protective equipment (PPE):

If the spill will be cleaned up by site personnel, choose the appropriate PPE to safely respond to the spill. Consult Safety Data Sheets (SDS) and literature from chemical and PPE manufacturers for the best recommendations. If you are uncertain of the danger and the material is unknown, allow outside response agencies to respond to the incident.



5. Confine the spill / protect receptors:

SPEED COUNTS! Limit the spill area by blocking, diverting, or confining the spill. Use absorbents including the socks, booms, and mats found in spill kits. Stop the flow of the liquid before it has a chance to contaminate a water source. Spill kits are designed to facilitate a quick, effective response.



6. Stop the source:

After the spill is contained, stop the source of the spill. This may simply involve turning a container upright, or plugging a leak from a damaged drum or container. Transfer liquids from the damaged container to an appropriate new one if you can do so without risk.



7. Evaluate the incident and implement cleanup:

Once the spill is confined and the leak has been stopped, it is time to reassess the incident and develop a plan of action for implementing the spill cleanup. Spills are commonly absorbed. Pillows, socks, booms, mat pads, and absorbent can be used to absorb the remainder of the spill. Simply place the pillows and pads throughout the spill area.



8. Decontaminate:

Decontaminate the site, personnel, and equipment by removing or neutralizing the hazardous materials that have accumulated during the spill. This may involve removing and disposing of contaminated media, such as soil, that was exposed during spill incident. See Appendix E for proper classification and disposal of oil-contaminated materials.



9. Complete required reports

Complete all notifications and paperwork required by local, state, and federal guidelines for reporting spill incidents. Failure to do so can result in penalties. This is the responsibility of the Primary Emergency Coordinator.



10. Conduct incident analysis

The facility Emergency Coordinators will conduct an incident analysis and develop plans to prevent recurrence.

SAFETY FIRST

OIL SPILL REPORT

INCIDENT DESCRIPTION	
Is the Oil Spill Reportable? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Location Where Oil Spill Occurred: _____	
Who discovered the spill: _____	
Discovery Date and Time: _____	
Date Spill Began: _____ Date Spill Ended: _____	
Time Spill Began: _____ <input type="checkbox"/> am <input type="checkbox"/> pm Time Spill Ended: _____ <input type="checkbox"/> am <input type="checkbox"/> pm	
Weather Conditions: _____	
Type of Material Spilled/Released:	
Estimated Amount Spilled/Released:	Amounts Recovered:
Source and Cause of the Release:	
Is more spillage possible? <input type="checkbox"/> Yes <input type="checkbox"/> No	If yes, amount:
Description of All Affected Media [soil, water (specify), other (specify)] and Environmental Receptors:	
Damages or Injuries Caused by Discharge:	
Was an Evacuation necessary? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Corrective Action(s) Taken:	

GENERAL VERBAL NOTIFICATIONS REQUIREMENTS (To be made if spill is reportable)		
AGENCY / PHONE NUMBER	CONTACT NAME with DATE / TIME	REPORTING CRITERIA
North Dakota Oil Spill Hotline (24 hours) (800) 472- 2121		Any spill or discharge of liquid or solid (not gaseous) waste which may cause pollution of waters of the state must be reported immediately. Specific minimum quantities for mandatory reporting of spills have not been established. All spills which may potentially impact waters of the state, either surface water or groundwater, must be reported.
National Response Center 1-800-424-8802		A release of oil to navigable waters or to a storm drain that discharges to navigable waters
City of Hebron Fire Department 911		If aid is needed to evacuate area
City of Hebron Police Department 911		If aid is needed to evacuate or respond to spill
OTHER EMERGENCY TELEPHONE NUMBERS (for reference, if needed):		
Environmental Protection Agency, Region 8		(800) 227-8917
CHI St. Joseph's Health – Dickinson, ND		(701) 456-4000
Poison Control Center		1-800-222-1222
DOCUMENT INSTRUCTIONS GIVEN BY EACH AGENCY NOTIFIED <i>(attach sheets as necessary)</i>		
REVIEW AND APPROVAL		
<u>PREPARER OF SPILL REPORT:</u>		
_____	_____	_____
(printed name)	(signature)	(date)
<u>PRIMARY EMERGENCY COORDINATOR:</u>		
_____	_____	_____
(printed name)	(signature)	(date)

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RECORD OF PERIODIC PLAN REVIEW

DATE OF REVIEW	STATEMENT OF REVIEW
	I have completed review and evaluation of the SPCC Plan and will <input type="checkbox"/> will not <input type="checkbox"/> amend the plan as a result. Name: Signature:
	I have completed review and evaluation of the SPCC Plan and will <input type="checkbox"/> will not <input type="checkbox"/> amend the plan as a result. Name: Signature:
	I have completed review and evaluation of the SPCC Plan and will <input type="checkbox"/> will not <input type="checkbox"/> amend the plan as a result. Name: Signature:
	I have completed review and evaluation of the SPCC Plan and will <input type="checkbox"/> will not <input type="checkbox"/> amend the plan as a result. Name: Signature:
	I have completed review and evaluation of the SPCC Plan and will <input type="checkbox"/> will not <input type="checkbox"/> amend the plan as a result. Name: Signature:
	I have completed review and evaluation of the SPCC Plan and will <input type="checkbox"/> will not <input type="checkbox"/> amend the plan as a result. Name: Signature:
	I have completed review and evaluation of the SPCC Plan and will <input type="checkbox"/> will not <input type="checkbox"/> amend the plan as a result. Name: Signature:

**Sunflower Wind Project
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PLAN DISTRIBUTION LIST

FACILITY PERSONNEL/ DEPARTMENTS		
Hard Copy	Primary Emergency Coordinator	Raitis Sipols Site Supervisor
Electronic Copy	Alternate Emergency Coordinator	Joby Black Substation Coordinator
Electronic Copy	Alternate Emergency Coordinator	E.ON Dispatch Center 24-Hour Monitoring for Sunflower Wind Project, LLC

Sunflower Wind Project

Spill Prevention, Control, and Countermeasure Plan

SECTION 1.0 - GENERAL INFORMATION

1.1 INTRODUCTION

This Spill Prevention, Control, and Countermeasure Plan (SPCC Plan) has been prepared for Sunflower Wind Project, LLC (SPW) for their Sunflower Wind facility located in Stark and Morton Counties, North Dakota pursuant to the United States Environmental Protection Agency's (EPA's) Oil Pollution Prevention Regulations (Title 40 of the Code of Federal Regulations [CFR] Part 112) dated 2006 with amendments through November 2011.¹ These regulations are commonly referred to as the SPCC Rule. This SPCC Plan establishes oil spill preparedness, prevention, planning, response, and notification procedures as set forth in 40 CFR Part 112 (SPCC Rule).

This SPCC Plan has been prepared by GZA GeoEnvironmental, Inc. (GZA) and Sunflower Wind. The SPCC Plan has been reviewed and certified by a Licensed Professional Engineer.

1.1.1 Plan Outline

This Plan contains three main sections:

1. General Information;
2. Oil Spill Contingency Plan; and
3. Spill/Release Prevention.

Section 1.0 - General Information describes the Sunflower Wind facility and the administration of this Plan including procedures for the distribution, periodic review, and amendment of the Plan.

Section 2.0 - Oil Spill Contingency Plan identifies and establishes the response and notification procedures to be used in the event of a spill/release including: steps to be taken when a spill/release is discovered; how to report a spill/release; guidance on mitigation and cleanup of a spill/release and disposal of related waste; and a description of spill/release response equipment maintained by Sunflower Wind.

Section 3.0 - Spill/Release Prevention identifies and establishes policies and procedures to be implemented with the goal of reducing the potential of a spill/release, including: a detailed description of areas of the facility where oil and other petroleum products are used and stored; the associated containment systems; a description of the potential environmental receptors that may be affected; procedures for inspecting storage areas or equipment containing oil; a description of Sunflower Wind's training program; delivery/storage procedures; and a discussion and assessment of the potential spill/release scenarios.

¹ EPA proposed amendments to the SPCC Rule on December 5, 2008, which were re-issued February 3, 2009 for public comment, and finalized April 4, 2009. Administrative clarifications were issued on November 5, 2009. EPA implemented a compliance date for these amendments on November 10, 2011.

1.1.2 SPCC Plan Review/Amendments

As set forth in 40 CFR 112.4 and 112.5, this SPCC Plan shall be amended and recertified whenever required by the EPA Regional Administrator, or whenever:

- Applicable regulations are revised or added, or
- There is a change in facility design, construction, operation, or maintenance which materially affects the facility's potential for the discharge of oil into or upon the navigable waters of the United States or adjoining shorelines.

Examples of changes that may require amendment of the SPCC Plan may include, but are not limited to:

- Commissioning or decommissioning oil storage systems (including tanks, portable containers, and oil-filled equipment);
- Replacement, reconstruction, or movement of oil storage systems;
- Reconstruction, replacement, or installation of piping systems;
- Construction or demolition that may alter secondary containment structures;
- Changes of product or service; or
- Revision of standard operation or maintenance procedures at the facility.

Such amendments are considered technical amendments. Technical amendments made to this SPCC Plan shall only be effective, and shall only satisfy the requirements of 40 CFR Part 112, if certified by a Licensed Professional Engineer. Administrative changes, such as a change of telephone numbers, do not require certification by a Licensed Professional Engineer.

In addition, the SPCC Plan shall be reviewed and evaluated at least once every five years. As part of this review, the SPCC Plan must be amended to include more effective prevention and control technology, if it is determined that more effective technology is available that is (1) field-proven at the time of the review; and (2) will significantly reduce the likelihood of a discharge from the facility.

Any amendment made to this SPCC Plan must be prepared and implemented no later than six months from the date of the facility change requiring the amendment. All SPCC Plan reviews and/or amendments must be documented using the *Record of Periodic Plan Review* and *Record of Plan Revisions (Pages i and ii)* of this SPCC Plan, respectively. The current revision date of the SPCC Plan is indicated in the lower left corner of each page.

1.1.3 SPCC Plan Distribution

The SPCC Plan will be distributed in accordance with the SPCC Plan Distribution List on **Page iii** of the SPCC Plan.

1.1.4 Certification of Substantial Harm Determination

The SPCC Rule mandates that if an owner/operator determines that the facility does *not* have the potential to cause “substantial harm,” the owner/operator must complete the certification form contained in 40 CFR 112.20, Appendix C, Attachment C-II. This form must be maintained at the facility. Sunflower Wind has determined that the facility does *not* meet

the “substantial harm” criteria. The executed certification and listing of self-selection criteria are presented in **Appendix A**.

It is important to note that if the operations at the facility change so that the terms of this certification are no longer satisfied, a Facility Response Plan must be prepared and submitted to the Regional Administrator (see 40 CFR 112.20).

1.1.5 Regulatory Cross Reference

The SPCC Rule requires that any SPCC Plan that does not specifically follow the regulatory format include a cross reference of the SPCC Plan with the guidelines presented in 40 CFR Part 112. Accordingly, a regulatory cross reference is included as **Appendix B** to this SPCC Plan.

1.2 PURPOSE AND SCOPE

The purpose of this SPCC Plan is to establish oil spill preparedness, prevention, planning, response, and notification procedures as set forth in the applicable State and federal regulations related to oil management. It identifies the following:

- Equipment, policies, and procedures maintained and implemented by Sunflower Wind to prevent and to minimize hazards to public health, safety, welfare, and the environment resulting from oil spills/releases to soil, surface water or groundwater;
- Response actions and guidelines to mitigate these situations should they occur; and
- Design features and operating procedures to prevent spills/releases of oil that could impact navigable waters or adjoining shorelines in violation of federal and North Dakota laws and regulations.

This SPCC Plan has been prepared pursuant to regulations set forth in 40 CFR Part 112, which require any facility that meets the following applicability criteria to prepare and implement an SPCC Plan:

- Aggregate oil storage capacity of 42,000 gallons or greater below ground; OR
 - Aggregate oil storage capacity of 1,320 gallons or greater aboveground;
- AND
- Could reasonably be expected to discharge oil in harmful quantities into navigable waters of the United States:

Completely buried storage tanks subject to all of the technical requirements of applicable underground storage tanks regulations, and containers with storage capacities less than 55 gallons, are not considered in this determination nor are they subject to the requirements of 40 CFR Part 112.

Oil is defined in 40 CFR 112.2 as “*oil of any kind or in any form, including, but not limited to: fats, oils, or greases of animals, 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 dredges spoil.*”

The Sunflower Wind facility exceeds the aboveground storage threshold quantities established in the regulations, and includes oil storage in portable containers and oil-filled operational equipment.²

1.2.1 Facility General Information

Sunflower Wind is a wind electric power generating facility. Sunflower Wind generates electric power for sale via transmission and distribution lines to customers. There are 52 wind turbines with a total generating capacity of 104 megawatts.

The Sunflower Wind facility is comprised of the wind power generation site located South of Interstate 94 at Exit 97 in Stark and Morton Counties in central North Dakota. The site location is depicted on **Figure 1 – Locust Map** in the *Figures* section of this SPCC Plan.

The Sunflower Wind facility includes an Operations and Maintenance (O&M) building; electrical substation; substation control house; 52 individual wind turbine sites; grounding transformers; above and below ground 34.5 kilovolt electrical transmission and communication lines; and access roads. The facility is primarily bounded by undeveloped agricultural and grazing land. Surface water bodies located along the corridor and in the vicinity of the Sunflower Wind facility include:

- Heart Butte Creek;
- Branch Knife River;
- Spring Creek; and
- Unnamed ponds, tributaries, and wetlands.

Refer to **Figure 2** in the *Figures* section of this SPCC Plan for the general layout of the facility.

Oil storage capacity at the facility includes approximately 22,877 gallons of oil stored in oil-filled operational equipment and portable containers. The oil-filled operational equipment located at the Sunflower Wind facility includes 52 wind turbines, four grounding transformers, one station service transformer, one main electrical transformer associated with the facility substation, and one transformer associated with the O&M Building.

The facility operations occur 24 hours per day, 365 days per year. The facility is manned during the hours of 0700 to 1530 Monday through Friday. The facility is typically staffed by approximately 10 employees, including but not limited to the Site supervisor and subcontractors (including employees from the turbine manufacturer, Vestas Wind Systems [Vestas]).

Facility-specific information is listed below:

Facility Name:	Sunflower Wind
Facility Address:	7687 40 th Street, Hebron, North Dakota 58638

² Oil-filled operational equipment means equipment that includes an oil storage container (or multiple containers) in which the oil is present solely to support the function of the apparatus or the device. Oil-filled operational equipment is not considered a bulk storage container, and does not include oil-filled manufacturing equipment (flow-through process). Examples of oil-filled operational equipment include, but are not limited to, hydraulic systems, lubricating systems (e.g., those for pumps, compressors and other rotating equipment, including pump jack lubrication systems), gear boxes, machining coolant systems, heat transfer systems, transformers, circuit breakers, electrical switches, and other systems containing oil solely to enable the operation of the device.

Main Telephone Number: 815-383-8162
 County: Stark and Morton
 Latitude: 46° 50' 3.53"
 Longitude: -102° 4' 20.71"

1.2.2 Facility's Oil Storage Overview³

The estimated maximum quantity of oil stored and used at the facility is approximately 22,877 gallons. Oil storage at the Sunflower Wind facility that is subject to the requirements of this SPCC Plan includes the following:

- Two 70-gallon totes containing hydraulic oil and gear oil stored at the O&M Building;
- Two 55-gallon drums⁴ containing hydraulic oil and gear oil stored at the O&M Building;
- One O&M electrical transformer containing 96 gallons of transformer oil located at the O&M Building;
- Four grounding transformers containing a total of 2,444 gallons (611 gallons each) of transformer oil located in the substation;
- One station service transformer containing 83 gallons of transformer oil located at the substation;
- One main electrical transformer containing 10,696 gallons of transformer oil located at the substation; and
- Fifty-two wind turbines each containing approximately 83 gallons of hydraulic oil in the hydraulic system and 96 gallons of lubricating oil in the main gear box.

Specific information for each oil storage location at the facility is included in **Table 1 – Oil Storage Tank, Container, and Equipment Inventory** in the *Table* Section of this SPCC Plan. The location of the 52 wind turbines, O&M Building, and substation are depicted on **Figure 2 - Site Overview Plan** of this SPCC Plan. The location of the substation and service transformers, 70-gallon totes, and 55-gallon drums are shown on **Figure 3- Substation and O&M Building Layout Plan**.

1.2.3 Roles and Responsibilities

As required by 40 CFR Part 112, Sunflower Wind has designated a person accountable for discharge prevention who reports to Sunflower Wind management (**Tab 1**). If the **Primary Emergency Coordinator** is not immediately available, the Alternate Primary Emergency Coordinator will be responsible for the implementation of the SPCC Plan and all associated policies and procedures at the Sunflower Wind facility. The **Primary Emergency Coordinator** has been authorized by Sunflower Wind to implement this SPCC Plan and utilize

³ The Sunflower Wind facility may have other oil-filled equipment and storage containers with a capacity which is less than 55 gallons; however, these equipment and containers are exempt from the SPCC rule and are therefore omitted from this plan.

⁴ The number of 55-gallon drums is approximate and may vary depending on facility operations.

any resources described within this SPCC Plan to limit the hazards to human health or the environment from a spill/release of oil.

Specific SPCC-related responsibilities of the **Primary Emergency Coordinator** include:

- Conducting periodic review of the SPCC Plan;
- Preparing amendments to the SPCC Plan;
- Coordinating the implementation of SPCC Plan amendments;
- Distribution of the SPCC Plan and SPCC Plan amendments;
- Conducting and documenting the training program;
- Contacting the Emergency Response Contractors on an annual basis to verify availability, capability, and confirm contact names and telephone numbers;
- Ensuring that the site inspections are conducted;
- Coordinating the five-year review and update of the SPCC Plan;
- Directing oil spill response efforts;
- Assessing human health and environmental hazards and impacts;
- Assessing spill/release to determine if external reporting is required and/or if spill contractor is needed;
- Initiating/coordinating incident response and communicating required follow-up actions;
- Initiating/coordinating sustained actions;
- Initiating/coordinating termination of response actions and follow-up actions;
- Verbal notifications in the event of an oil spill (North Dakota Department of Health [North Dakota DOH] and, if required, National Response Center [NRC] and local agencies such as the Hebron Fire Department);
- Follow-up notifications/reporting with outside agencies in the event of an oil spill (as needed);
- Preparing a written record of spills or discharges of oil to land, groundwater, or surface water; and
- Implementing identified corrective actions.

The **Primary Emergency Coordinator** will be supported by the **Alternate Emergency Coordinator** and the **E.ON Dispatch Center**. The E.ON Dispatch Center provides 24-hour monitoring for Sunflower Wind Project, LLC facilities.

Specific SPCC-related responsibilities of the **Alternate Emergency Response Coordinator** include:

- Conducting periodic inspections of oil-filled operational equipment, drum storage areas, storage containers, containment systems, and spill response equipment and supplies;
- Maintaining oil-filled operational equipment and containment systems;

- Maintaining spill response equipment and supplies; and
- Coordinating with the Primary Emergency Response Coordinator on SPCC-related operation, maintenance, and response issues.

At his discretion, the Primary Emergency Coordinator may further delegate or change the responsibilities outlined above.

The Primary Emergency Coordinator, the Alternate Emergency Coordinator, and the E.ON Dispatch Center, and their respective telephone numbers and addresses, are identified on the **Emergency Contact List in Tab 1** of this SPCC Plan. Updated and complete copies of the SPCC Plan will be maintained on site in the Primary Emergency Coordinator's files. The SPCC Plan will be made available upon request for on-site review during normal business.

1.3 CONFORMANCE WITH STATE REQUIREMENTS

In order to fulfill the requirements of 40 CFR 112.7(j), which requires SPCC Plans to include a complete discussion of conformance with applicable State rules, regulations, and guidelines, Sunflower Wind's compliance status with respect to applicable North Dakota regulations was evaluated. The State of North Dakota does not have any requirements more stringent than the federal requirements with regard to SPCC Plans.

The State of North Dakota has regulatory statutes that address oil pollution prevention and spill response. Specifically, these are:

- North Dakota Administrative Code Section 33-16: Control, Prevention, and Abatement of Pollution of Surface Water;
- North Dakota Administrative Code Section 33-20: Solid Waste Management and Land Protection; and
- North Dakota Administrative Code Section 33-24: Hazardous Waste Management.

North Dakota Administrative Code Section 33-16 pertains to reporting and cleanup requirements for oil spills. North Dakota Administrative Code Section 33-20 and 33-24 pertain to the handling and disposal of solid and hazardous waste. Codes specific to used oil can be found in North Dakota Administrative Code Title 33 Article 24 Chapter 05 Part 600. Where applicable, these North Dakota regulatory statutes are further discussed in the text of this SPCC Plan. No other local, State, or tribal regulations that potentially apply to oil storage have been identified for the Sunflower Wind facility.

1.4 QUALIFIED FACILITY

A "qualified facility," as defined in 40 CFR 112.3(g), can self-certify the SPCC Plan. The Sunflower Wind facility does not meet the definition of a qualified facility and, therefore, cannot self-certify the SPCC Plan under the federal SPCC Rule.

1.5 SPCC PLAN DEVIATIONS

The SPCC Plan for the Sunflower Wind facility does not include deviations from the 40 CFR Part 112 SPCC Plan requirements.

1.6 APPROVAL AND CERTIFICATION

This SPCC Plan has been reviewed and approved by a representative of Sunflower Wind with the authority to commit the necessary resources for implementing this SPCC Plan, and by a licensed Professional Engineer as required by 40 CFR Part 112.

1.6.1 Management Approval

This SPCC Plan has been reviewed and approved by a Sunflower Wind representative with the authority to commit necessary resources for implementing the SPCC Plan. The programs and procedures outlined in this SPCC Plan will be implemented and periodically reviewed and updated in accordance with 40 CFR Part 112, as amended, and applicable state and local requirements. Additionally, in the event of a spill or release of oil or hazardous waste, the necessary manpower, equipment, and materials will be made available to expeditiously control and remove any harmful quantity of oil or hazardous waste discharged.


(Signature)

Raitis Sipols
(Name)

Site Supervisor – Hebron
(Title)

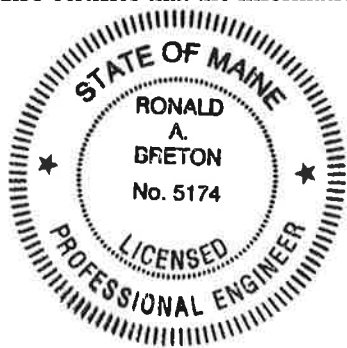
12-13-16
(Date)

1.6.2 Professional Engineer Certification

With this understanding, I hereby certify that I or a designated agent have examined the facility, and being familiar with the provisions of federal regulations 40 CFR Part 112, Oil Pollution Prevention; attest that the SPCC elements of this SPCC Plan have been prepared in accordance with good engineering practices, including consideration of applicable industry standards, and with the requirements of 40 CFR Part 112. I also attest that procedures for required inspections and testing have been established, and this SPCC Plan is adequate for Sunflower Wind.

This certification⁵ shall in no way relieve the owner or operator of their duty to implement this SPCC Plan in accordance with 40 CFR Part 112. Further, this certification is no longer valid when any planned or unplanned change takes place at the Facility that can increase the potential for a discharge of oil to navigable waters of the United States or when the regulations imposing SPCC Plan requirements change or after the deadline to review the continued applicability of this SPCC Plan has passed.

Certain information was provided by Sunflower Wind. It is understood that Sunflower Wind also certifies that the information provided is true and accurate.



Ronald A. Breton, P.E.

Printed Name of Licensed Professional Engineer

A handwritten signature in cursive script that reads "Ronald A. Breton".

Signature of Licensed Professional Engineer

Date: December 13, 2016 Registration No.: 5174 State: Maine

This certification shall be void unless this SPCC Plan is also endorsed and implemented by authorized management of the subject facility.

⁵ Certification is the statement or declaration of a professional opinion based on observations made and data collected and reviewed.

Sunflower Wind Project Spill Prevention, Control, and Countermeasure Plan

SECTION 2.0 - OIL SPILL CONTINGENCY PLAN

This section describes the spill/release response procedures to be implemented in the event of a spill/release at the Sunflower Wind facility.

2.1 REGULATORY BACKGROUND

EPA regulations define a spill event as the discharge of oil, in harmful quantities, into or upon the navigable waters of the United States or adjoining shorelines. Harmful quantities are defined as a discharge in quantities that may be harmful to public health or the environment that include those that violate applicable water quality standards, cause a film or sheen upon, or discoloration of, the surface of the water or the adjoining shorelines, or cause a sludge or emulsion to be deposited beneath the surface of the water or upon the adjoining shoreline. Contaminated groundwater also may have the potential to seep, leach, or flow into navigable waters which would be included in this definition. The term “*navigable waters*” of the United States means “*navigable waters*” as defined in section 502(7) of the Federal Water Pollution Control Act, (FWPCA), and includes:

- All navigable waters of the United States, as defined in judicial decisions prior to the passage of the 1972 Amendments of the FWPCA (Pub. L. 92-500) also known as the Clean Water Act (CWA), and tributaries of such waters as:
 - Interstate waters;
 - Intrastate lakes, rivers, and streams which are utilized by interstate travelers for recreational or other purposes; and
 - Intrastate lakes, rivers, and streams from which fish or shellfish are taken and sold in interstate commerce.

Note that storm sewers, storm drains, drainage ditches, and intermittent streams are considered to fall under the definition of navigable water since these features generally discharge into a navigable water.

Accordingly, any spill at the Sunflower Wind facility which enters a navigable waterway (i.e., any of the water bodies or tributaries listed in **Section 1.2.1**) must be considered subject to these regulations.

Direct discharge pathways at Sunflower Wind include but may not be limited to spills into the streams, brooks, ponds, and wetlands areas located along the property corridor.

2.2 DISCOVERY OF A SPILL/RELEASE, INTERNAL NOTIFICATION, AND IMMEDIATE ACTIONS

2.2.1 Initial Actions

The person(s) discovering a spill/release plays a critical role in determining the appropriate immediate actions to ensure their safety and the safety of others, as well as the protection of the environment. These immediate actions are based on various factors, including the nature of the release, the quantity of material released, the location of the release, etc. The person discovering a spill/release should attempt to contain the situation by evacuating the area,

restricting access to the area, and isolating potential environmental discharge points, if possible, and provided such measures can be done safely. Spilled/released materials should be contained with absorbent materials or containment booms to prevent the material from spreading beyond the immediate area of release. Sunflower Wind personnel are trained to clean-up spills less than 5 gallons in volume that do not enter surface water or groundwater. The person discovering the release should then initiate the notification procedures described in **Section 2.2.2** below.

An important aspect to consider in responding to and mitigating a spill/release is to contain and limit pathways to the environment. Effort should be made to contain spills at the source rather than resort to separation of the material from the environment or downstream waters. This can be accomplished by constructing berms around potential environmental receptors using absorbent or absorbent booms. In the event of a spill that occurs outside of secondary containment or escapes secondary containment, priority must be given to protecting pathways to the surface and subsurface water runoff collection system.

2.2.2 Internal Notification

Concurrent with the measures described in **Section 2.2.1** above, the person(s) discovering a spill/release must immediately report all spills, regardless of quantity, to the Primary Emergency Coordinator. The Primary Emergency Coordinator will make further, appropriate internal and external notifications. Contact numbers for the Primary Emergency Coordinator are included in the **Emergency Contact List** in **Tab 1** of this SPCC Plan.

The person making the notification should provide as much information regarding the release as possible. Where possible, the person making the notification should attempt to provide the following:

1. Location of spill;
2. Date and time discovered;
3. Name of material spilled;
4. Amount spilled and source of spill;
5. Associated hazards;
6. Location and description of potential and actual environmental receptors (e.g., storm drains, water bodies, etc.) if applicable;
7. Actions being used to stop, remove, and/or mitigate the effects of the spill; and
8. Description of any damages or personnel injuries.

The Primary Emergency Coordinator, once notified, will evaluate the situation to determine immediate actions required. The Primary Emergency Coordinator will conduct an immediate hazard assessment to determine the appropriate course of action for addressing the release. If it is determined that the spill/release can be safely addressed by on-site personnel, is less than 5 gallons, and has not entered the environment, the Primary Emergency Coordinator may direct personnel to initiate appropriate clean up actions. For spills/releases which cannot be readily managed by on-site personnel, the Primary Emergency Coordinator may contact the local Fire Department and/or an appropriately qualified spill cleanup contractor to provide assistance.

If there is an immediate threat to human life (e.g., a fire in progress or fumes overcoming personnel) or if there is a threat of a release, the Primary Emergency Coordinator will immediately notify the Fire Department. A “*Threat of Release*” is a substantial likelihood of a release of oil and/or hazardous material which requires action to prevent or mitigate damage to health, safety, public welfare, or the environment which may result from the release. If an uncontrollable spill/release has occurred and/or if the spill/release has migrated beyond Sunflower Wind property, the Primary Emergency Coordinator may request the assistance of the Fire Department and a spill cleanup contractor. Telephone numbers for the emergency contacts are identified on the **Emergency Contact List** in **Tab 1** of this SPCC Plan.

2.3 EXTERNAL NOTIFICATIONS

The Primary Emergency Coordinator will determine if a reportable release has occurred and will perform notification to outside agencies, if necessary. If the spill enters the environment, threatens or contacts a navigable waterway, or poses any risk of injury to health or the environment, the Primary Emergency Coordinator will conduct reporting to outside agencies in accordance with the following sections. A Spill Reporting Guide is included in **Appendix E**.

2.3.1 State and Local Reporting Requirements

If any quantity of oil (including but not limited to transformer oil, gasoline, diesel, heating oils, hydraulic oils, and lubricating oils) is spilled which may cause pollution of waters of the State, an initial telephone report must be made to the North Dakota DOH or the North Dakota Oil Spill Hotline as soon as possible. Specific minimum quantities for mandatory reporting of spills have not been established.

A list of appropriate State and local contacts and their respective telephone numbers and addresses are identified on the **Emergency Contact List** in **Tab 1** of this SPCC Plan.

2.3.2 Federal Reporting Requirements

If a spill/release results in the discharge of quantities that may be harmful to public health or to the environment and that violates applicable water quality standards, causes a sheen or discoloration of navigable waters or adjoining shorelines, or causes a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shoreline, the spill must be reported to the NRC. Although not specifically required, EPA Region 8 may be notified directly in addition to notifying the NRC. The contact numbers for each of these agencies are identified in the **Emergency Contact List** in **Tab 1** of this Plan.

2.3.3 Oil Pollution Prevention Regulations Reporting Requirements

In addition to the reporting requirements discussed above, any single discharge of 1,000 gallons or more of oil, or any two discharges of oil in excess of 42 gallons each within one 12-month period, must be reported in writing to the Regional Administrator of EPA within 60 days. The following information must be submitted:

- Name of the individual reporting the spill;
- Facility name and location;
- Maximum storage capacity of the facility and normal daily throughput;
- An adequate description of the facility including maps, flow diagrams, and topographic maps, as necessary;

- The cause of the discharge(s), including an analysis of what caused the discharge;
- Corrective actions that have been taken, including descriptions of equipment repairs and replacement;
- Preventive measures taken to prevent a recurrence; and
- Any other information requested by EPA.

2.4 FOLLOW-UP ACTIONS

2.4.1 Clean-Up of Spill and Spill Area

At the conclusion of spill response activities, facility personnel (or the emergency response contractor) will begin decontamination of equipment and affected site areas. Surfaces that are contaminated by the spill/release shall be cleaned using an appropriate cleaning solution. All materials used in the clean-up, including aqueous cleaning solutions, must be limited, contained, and properly disposed. Occasionally, porous materials (such as wood, soil, or sorbent) may be contaminated; such materials may require special handling for disposal. All tools and equipment that have been used during a spill response or clean-up effort must be thoroughly decontaminated.

2.4.2 Recovery and Disposal of Spilled Material

All spill cleanup material shall be recovered into appropriate containers [e.g., 1-gallon metal containers, open-top 55-gallon drums; or if the size of the spill warrants, into a roll-off container(s)]. Care must be taken when cleaning up spills in order to limit the generation of additional waste. When containers are filled after a clean-up, the top of the containers will be secured and the container will be appropriately labeled (or relabeled) identifying the substance(s), the date of the spill/clean-up, and the location of the spill/release.

Waste material generated during clean-up activities must be characterized in accordance with the North Dakota Hazardous Waste Management and the Solid Waste Management Rules. Codes specific to used oil can be found in North Dakota Administrative Code Title 33 Article 24 Chapter 05 Part 600. Disposal of oil spill wastes will be coordinated by the Primary Emergency Coordinator.

2.4.3 Restock Emergency Response Equipment

Subsequent to any spill/release response activities, emergency response equipment used during the response effort shall be replaced and restocked as necessary to ensure the availability of such equipment for future incidents. The Primary Emergency Coordinator will ensure that this activity is conducted.

2.4.4 Incident Documentation

All reported spills/releases shall be documented. The documentation shall be prepared by the Primary Emergency Coordinator or designee. The spill report shall include the following:

- Name of individual preparing the documentation;
- Location of spill;
- Date, time, and duration of release;

- Name of the material released;
- Source and total volume of the release;
- The cause of the release;
- Actions or clean-up procedures used to stop, remove, and/or mitigate the effects of the release;
- Preventive measures taken to prevent a recurrence;
- Corrective actions that have been taken, including descriptions of equipment repairs and replacement;
- A description of all affected environmental receptors or media;
- Personnel who discovered and/or participated in the spill remediation;
- Equipment used during the clean-up;
- Waste quantity and disposal method (e.g., transporter or treatment, storage, and disposal facility [TSDF]);
- Description of any damages or personnel injuries;
- Name of any organizations contacted including the applicable agency report numbers;
- Name, address and telephone number of responsible party (e.g., if it is a vehicle delivery driver or the owner of a private vehicle leaking fuel in a parking lot); and
- License plate number if a motor vehicle is involved.

A **Spill Response Log**, which may be used to document and provide a chronology of spill events, and an **Oil Spill Report** form, which may be used to assist in documenting and recording spills, are included in **Tabs 3** and **4**, respectively. The Primary Emergency Coordinator will review each spill report with the appropriate Sunflower Wind personnel to determine the root cause and identify appropriate corrective action. Records of all oil spills/releases at the Sunflower Wind facility are maintained with the SPCC Plan or in the Sunflower Wind files on site.

2.4.5 Remediation and Corrective Action

The Primary Emergency Coordinator is responsible for implementation of appropriate corrective measures to reduce the potential for recurrence. Examples of corrective action measures include the purchase of equipment, the upgrade or re-engineering of equipment, installation of secondary containment or leak alarms, increased training, etc. Incidents which require continued remediation/clean-up will be the responsibility of the Primary Emergency Coordinator.

2.5 EMERGENCY RESPONSE EQUIPMENT

2.5.1 Facility Spill Response Equipment

Sunflower Wind maintains two spill response kits. The spill response kits are located in the O&M Building and substation. Sunflower Wind maintains other spill-related equipment, including oil sorbent media, hand tools, and construction/maintenance equipment at the O&M Building. Fire extinguishers are located in the O&M Building and substation control house.

These materials are intended for use in responding to small spills/releases (i.e., less than 5 gallons) of oil at the facility and are generally sufficient for addressing small releases of materials such as would be encountered from a minor leak from a container or piece of oil-filled equipment. These materials are compatible with the oils stored at the Sunflower Wind facility. All emergency response equipment at the site is properly maintained and periodically inspected as part of routine activities at the Sunflower Wind facility. An Inventory of Spill Control Equipment and personal protection equipment that is maintained at the facility is included in **Appendix C**. Emergency response equipment maintained at the facility is modified as needed⁶.

2.5.2 Communications Systems

Sunflower Wind operates various communications systems at the facility which can be employed during an emergency at the facility. Communications systems at the facility include hand-held radios, land-line telephone, and cellular phones. All personnel employed at the Sunflower Wind facility have continuous access to one or more of these systems in the event of an emergency at the facility.

2.5.3 Emergency Response Contractor Equipment

In addition to the spill equipment maintained at the facility, Sunflower Wind will retain the services of an appropriately qualified spill response contractor if necessary. Spill response contractors typically maintain a wide range of response equipment capable of handling the types of releases which could occur at the Sunflower Wind facility. Contact information for a qualified spill response contractor for the Sunflower Wind facility is identified on the **Emergency Contact List** in **Tab 1** of this SPCC Plan.

⁶ This inventory list may be updated by the facility to reflect supplies maintained at the facility, provided that the updated quantities of materials do not impact the facility's ability and capacity for responding to spills.

Sunflower Wind Project Spill Prevention, Control, and Countermeasure Plan

SECTION 3.0 - SPILL/RELEASE PREVENTION

This section describes the uses of oil and petroleum products, and oil storage locations at the Sunflower Wind facility and the spill/release prevention equipment and procedures implemented at the Sunflower Wind facility, including secondary containment structures, oil handling, and personnel training.

Described below is the "system" of structural and non-structural controls that will be used to prevent a discharge or reduce the potential for a discharge of oil in harmful quantities into or onto the navigable waters of the United States and their adjoining shoreline. In general, the system will consist of:

- Spill containment structures;
- Preventive maintenance;
- Operating procedures that are specifically designed to reduce the potential for a release of oil;
- Personnel training regarding the resources available and the procedures established to prevent oil spills and subsequent discharges;
- Facility security measures;
- Spill kits (sorbent materials);
- Routine inspections and record keeping; and
- Routine SPCC Plan effectiveness reviews and amendments.

The guidelines for the preparation and implementation of an SPCC Plan (40 CFR Part 112.7 (c)) require the use of "*appropriate containment and/or diversionary structures or equipment*" to prevent an oil discharge. At a minimum, one of the following structural controls (or its equivalent) must be used for onshore facilities:

- Dikes, berms, or retaining walls sufficiently impervious to contain oil;
- Curbing or drip pans;
- Sumps and collection systems;
- Culverting, gutters, or other drainage systems;
- Weirs, booms or other barriers;
- Spill diversion ponds;
- Retention ponds; or
- Sorbent material.

Structural controls will be used as part of the discharge prevention system for the Sunflower Wind facility oil handling activities as described below in **Section 3.1**.

In addition to this system of structural and non-structural controls, Sunflower Wind also has provided a written commitment of manpower, equipment, and materials required to expeditiously control and remove any harmful quantity of oil discharged (see **Section 1.6.1**).

3.1 FACILITY USE AND STORAGE OF OIL

Oil storage at the Sunflower Wind facility subject to the requirements of this SPCC Plan includes oil-filled operational equipment, 70-gallon totes, and 55-gallon drums of oil. Specific information for each oil storage location at the facility is included in **Table 1 – Oil Storage Tank, Container, and Equipment Inventory**. The locations of the oil-filled operational equipment, drums, and totes are depicted on **Figures 2 and 3** in the *Figures* section of this SPCC Plan.

The Sunflower Wind facility stores oil at both indoor and outdoor locations. All oil storage at the Sunflower Wind facility is compatible with the respective contents and the manner in which the oil is stored.

3.1.1 Oil-Filled Operational Equipment

Sunflower Wind operates 59 pieces of oil-filled operational equipment including:

- One electrical service transformer located at the O&M Building;
- Four grounding transformers located in the substation;
- One station service transformer located at the substation;
- One main electrical transformer located at the substation; and
- Fifty-two wind turbines.

Each of the wind turbines has a nacelle and hub⁷ that contain a main gearbox, yaw and pitch motor gearboxes, and a generator. The main gear box within the nacelle contains approximately 96 gallons of lubricating oil. The hydraulic system within the nacelle contains approximately 83 gallons of hydraulic oil. Four grounding transformers contain 611 gallons of transformer oil, each. The main substation transformer contains 10,696 gallons of transformer oil, and the station service transformer contains 83 gallons of transformer oil. The O&M building electrical service transformer contains 96 gallons of transformer oil.

The oils contained in the oil-filled operational equipment are generally used for equipment lubrication or cooling.

3.1.2 Oil Storage Containers

Sunflower Wind stores two 55-gallon drums of hydraulic oil and lubricating oil and two 70-gallon totes of hydraulic oil and lubricating oil in the O&M Building storage and work bays (please note that the quantity of 55-gallon drums is approximate and may vary slightly depending on facility operations). The hydraulic and lubricating oil is stored for use in facility equipment and for equipment maintenance. Drums are constructed of steel and are compatible

⁷ Each of the wind turbines has a nacelle and hub. The nacelle contains a main gearbox, six yaw motors, and a hydraulic brake unit.

with the material stored. Totes are constructed of plastic and are compatible with the material stored.

3.1.3 Bulk Storage Tanks

Sunflower Wind does not currently store oil in bulk storage tanks.

3.2 CONTAINMENT SYSTEMS, CORROSION AND OVERFILL PROTECTION

These sections describe the containment systems, corrosion protection, and overfill protection systems that are in place at the Sunflower Wind facility. Additional information is provided on **Table 1 – Oil Storage Tank, Container, and Equipment Inventory**.

3.2.1 Oil-Filled Operational Equipment

The oil-filled operational equipment (including the wind turbine nacelles) are designed for industrial use and are painted to prevent external corrosion. This equipment is filled with oil prior to or during installation. Each wind turbine tower is equipped with a spill deck (i.e., rim catch basin) that is located at the bottom of the nacelle. These spill decks provide approximately 200 gallons of secondary containment for each nacelle.

A summary of containment systems and corrosion protection for the transformers is provided in the table below.

Summary of Transformer Containment and Corrosion Protection

Transformer	Corrosion Protection	Support	Secondary Containment
O&M Building Service Transformer	Painted metal housing	Fiberglass pad	Absorbent material
Station Service Transformer	Painted metal housing	Pole-mounted	Absorbent material
Grounding Transformers	Painted metal housing	Concrete pad	Concrete dike
Main Transformer	Painted metal housing	Concrete pad	Concrete dike

Sunflower Wind maintains sufficient amounts of absorbent material to contain the most likely release scenario of a slow drip resulting in approximately 5 gallons of released material. In the unlikely event that more than 5 gallons is released before Sunflower Wind responds, an appropriately qualified spill cleanup contractor will be contacted to provide assistance.

The concrete diked areas surrounding the grounding transformers each provide approximately 1,077 gallons of secondary containment, while the diked area around the main transformer provides approximately 13,802 gallons of secondary containment. The concrete diked areas each have a drain that discharges to the surrounding vegetated area with a valve that remains closed during normal facility operations. If liquid is present in the secondary containment, Sunflower Wind will visually inspect the liquid for the presence of oil, an oil sheen, or evidence of contact with any contaminants. If oil or contaminants are present, liquid will be removed from the structure by trained personnel at the direction of the Primary Emergency Coordinator and managed accordingly. Liquid that appears to be free of oil will be discharged to the surrounding vegetated area. Facility personnel will record inspections, drainage, and/or oil

removal from secondary containment structures on the Record of Inspection, Drainage, and Oil Removal from Secondary Containment form included in **Appendix D**. Drawings of the secondary containment structures are provided in **Appendix G**.

All of the transformers are remotely monitored 24 hours a day. Should a catastrophic release occur, a breaker would be tripped when the transformer overheats due to the loss of oil (anticipated to occur within one hour). Once the breaker trips, site personnel would be notified by the remote monitoring system of an issue that needed to be investigated. Facility personnel would respond to the release, including stopping or containing the release with on-site spill kits. Additionally, these transformers are inspected monthly for evidence of leaks or failure. Based on the large distance to surface water (>1,000 feet), Sunflower would likely identify a slow drip release during inspections before oil reached navigable waters.

3.2.2 Oil Storage Containers

Within the O&M building, secondary containment for the totes is provided by a metal spill containment pan with a capacity of approximately ≥ 77 gallons.⁸ Secondary containment for the drums is provided by spill pallets with ≥ 61 gallons of containment capacity. The O&M Building provides additional secondary containment. Two floor drains are located within the loading dock area that are connected to a 1,000-gallon oil/water separator (OWS).

3.2.3 Bulk Storage Tanks

Sunflower Wind does not store oil in bulk storage tanks.

3.3 FIELD-CONSTRUCTED CONTAINER EVALUATION

There are no field-constructed⁹ above ground storage containers at Sunflower Wind.

3.4 ASSESSMENT OF SPILL/RELEASE SCENARIOS

Although oil storage at the Sunflower Wind facility is contained and managed as outlined above, the facility has considered the potential environmental spill release scenarios associated with each storage location at the facility. As required by 40 CFR Part 112, this SPCC Plan includes a prediction of the direction, rate of flow, and total quantity of oil which could be discharged from the facility as a result of each type of major equipment failure. Refer to **Table 1 – Oil Storage Tank, Container, and Equipment Inventory** for specific information regarding individual oil storage locations.

The Sunflower Wind facility is characterized by a mix of pervious unpaved areas, landscaped areas, and naturally undeveloped vegetated land. Developed portions of the facility include the access roadways, the O&M Building, the substation, and wind turbine sites. Wind turbine sites are generally located along the ridgelines of the mountains. Storm water at the facility generally flows across ground surfaces in the higher, developed areas of the facility toward nearby topographically low areas. Ponds, seasonal tributaries, and wetlands (and associated brooks/streams) are located throughout the topographically low areas of the facility.

⁸ At the time of GZA's site visit the oil storage containers in the O&M building with associated secondary containment were not in place. Sunflower Wind intends to purchase and/or fabricate secondary containment structures with enough capacity to contain 110% of the largest container.

⁹ A "field-constructed above ground container" is one that is assembled or reassembled outside the factory at the location of intended use.

Releases at the facility could occur from a variety of causes including human error and/or system malfunction/failure. Examples of such situations include releases from failure of secondary containment systems associated with leaking oil-filled operational equipment, releases during loading/unloading activities, or releases from oil storage containers. The following sections describe the activities which could result in major equipment failures likely to result in a release at the facility.

3.4.1 Oil-Filled Operational Equipment

Releases could occur from the oil-filled operational equipment due to mechanical or structural failure of a system component or operator error. Releases due to operator error, such as inadvertently spilling oil while filling equipment, are anticipated to result in a relatively small release, which would likely be immediately contained by facility personnel. Releases due to mechanical or structural failure could involve releases of larger quantities of oil; potentially even the entire contents of the oil-filled operational equipment.

A further discussion of containment scenarios for the oil-filled operational equipment at the site is provided in **Section 3.2.1**.

3.4.2 Oil Storage Containers

Releases from containers could occur as relatively small leaks from drums or totes, or a catastrophic failure of a container resulting in up to a 70-gallon release of oil. Due to the manner in which containers are handled and stored, such a release is considered unlikely.

Should a significant release occur from one of the oil storage containers within the O&M Building, the released material would be contained within the spill pallet or spill pan. The O&M building is also equipped with floor drains that discharge to an oil water separator. Active control measures, including periodic inspections, the presence of trained Sunflower Wind personnel on site, and the use of spill response kits, would reduce the chance of a spill becoming unmanageable.

3.4.3 Bulk Storage Tanks

Sunflower Wind does not store oil in bulk storage tanks.

3.4.4 Loading/Unloading Activities

Loading/unloading activities include delivery trucks loading and unloading drums of virgin and used oil, and transferring oil into and out of facility equipment. Complete oil changes of equipment in the wind turbine are anticipated to occur approximately every three to five years. Used oil will be drained from the wind turbine and collected in drums or a vacuum truck. Drums will be elevated into the nacelle using a drum cradle and oil will be drained from the equipment into the empty drum. Drums will then be transported to the O&M Building. Virgin oil will be pumped into the equipment from a drum. During the oil change, secondary containment will be provided for the drums by the wind turbine spill deck. During transit of oil drums, Sunflower Wind will rely on absorbent materials located on the truck and within the O&M Building to manage a release.

Releases occurring during the loading/unloading process could be the result of operator error, or from the failure of a piece of equipment associated with this activity. Such releases would vary from relatively small releases to catastrophic failures of a drum. To reduce the likelihood

of a release occurring during loading/unloading, Sunflower Wind has implemented loading/unloading procedures as described below.

Qualified personnel are present during unloading activities to instruct, observe deliveries, and transfer activities. Should a release occur during loading or unloading, it is likely that the release would be limited and contained using spill control materials available at the facility. Spill control materials would provide for adequate containment until such time as the release could be properly mitigated. If a release were to occur in a manner which overwhelmed the ability of Sunflower Wind to contain the release, it is possible that the release would not be contained but instead would be discharged to the ground surface in the area. A release of this nature is unlikely due to the active control measures in place at the facility. Active control measures such as the use of the monitored loading/unloading procedures and the use of spill response kits would greatly reduce the chance of a spill migrating beyond the immediate area.

The specific release scenario would depend on the location of the failure and the quantity of material released. The direction and rate of the flow of the released material would depend on the location of the release, the quantity of oil released, and the weather conditions at the time of the incident. The rate of flow could vary greatly, ranging from a release which does not migrate beyond the immediate release area, to one which travels at several feet per second.

3.5 FACILITY DRAINAGE

The Sunflower Wind facility is characterized by a mix of agricultural and naturally undeveloped fields with small tree groves. Surface drainage at the facility is controlled using storm water swales (ditches) and discharge pipes. Surface water drainage at Sunflower Wind is engineered to flow to low lying areas where it either infiltrates into the ground or is discharged to a surface water body (e.g., pond, brook, wetland area).

3.5.1 Drainage from Secondary Containment Areas

Inspections and discharges of uncontaminated storm water must be documented via recordkeeping. If liquid is present in the secondary containment, Sunflower Wind will inspect the liquid for the presence of oil, an oil sheen, or evidence of contact with any contaminants. If oil or contaminants are present, liquid will be removed from the structure by trained personnel at the direction of the Primary Emergency Coordinator and managed accordingly. Liquid that appears to be free of oil will be discharged to the surrounding vegetated area. The Record of Inspection, Drainage, and Oil Removal from Secondary Containment form in **Appendix D** may be used to document discharges. An alternate form or method of documenting this drainage (i.e., notation on the SPCC Inspection forms) may be developed by Sunflower Wind provided that it includes (at a minimum) all of the information contained on the Record of Inspection, Drainage, and Oil Removal from Secondary Containment form.

3.6 INSPECTION PROCEDURES

In accordance with 40 CFR Part 112, Sunflower Wind personnel conduct periodic visual inspections of oil-filled operational equipment and oil storage containers as part of routine operations and preventative maintenance procedures. These inspections are conducted to identify malfunctions, deterioration, operator error, and discharges which may cause or lead to spills/releases of oil. The Primary Emergency Coordinator will ensure that inspections occur for oil-filled operational equipment and oil storage containers at the facility. Inspections at the facility will be performed at the intervals specified (monthly) by trained individuals as determined by the Primary Emergency Coordinator. These inspections will be conducted using

the SPCC Inspection Form contained in **Appendix D** of this SPCC Plan. Alternate inspection checklists may be developed by Sunflower Wind if they include (at a minimum) all of the inspections and information contained on the in the SPCC Inspection Form in **Appendix D**. Additional inspection items may be added to this checklist by Sunflower Wind.

3.6.1 Inspections of Oil-Filled Operational Equipment and Containers

All oil-filled operational equipment and containers will be visually inspected on a routine periodic basis for the following items:

1. All containers and equipment will be examined for leaks from seams, rivets and bolts, where applicable, and gaskets and for signs of deterioration (e.g., discoloration, corrosion, cracks) of the vessel, aboveground foundation and structure supports;
2. All associated piping/appurtenances will be checked for dripping, loose joints, damage to supports, and pipe deflection;
3. All connections will be checked for leakage, drainage, tightness, and appropriate capping;
4. All ancillary equipment will be checked for evidence of leakage, proper operation, and damage;
5. All storage areas and containment systems will be inspected for integrity and the accumulation of stored product. If oil is observed in the containment system, the source of the oil will be determined; and
6. The security of the areas/equipment will be checked (i.e., valves and equipment locked and secured).

The oil water separator will be inspected monthly for the presence of oil by removing one of the access covers and visually inspecting liquid contained within. If oil is observed in the oil collection chamber, it will be removed by appropriately trained personnel under the direction of the Primary Emergency Coordinator.

If an issue of concern is detected during the inspection, notification will be made to the Primary Emergency Coordinator. The Primary Emergency Coordinator or his designee will initiate and implement the appropriate corrective action to mitigate the problem. If the inspection reveals a release or threat of release, the spill/release response procedures in **Section 2** of this SPCC Plan will be implemented.

3.6.2 Inspection Records

All inspections must be documented using the SPCC Inspection Form included in **Appendix D** of this SPCC Plan, or an equivalent form developed by Sunflower Wind. Inspection forms will be signed and dated by the individual conducting the inspection and maintained by the Primary Emergency Coordinator for a minimum of three years.

3.7 INTEGRITY TESTING

This section describes the integrity testing program, developed and implemented by Sunflower Wind as required by 40 CFR Part 112 for oil storage containers and bulk storage tanks.

Industry standards allow for visual inspections of drums and totes to comply with 40 CFR 112.8 (c)(6) aboveground container periodic integrity testing. All oil storage containers are stored inside, protecting the equipment from contact with soil, water, or other corrosive conditions. Portable storage containers (i.e., 55-gallon drums) are periodically (typically at least once per year) removed and replaced.

Visual inspections are performed monthly as part of routine SPCC inspections. Records of these inspections are maintained in Sunflower Wind files for a period of three years.

3.8 TRAINING

The following Sunflower Wind personnel participate in initial and annual oil management training:

- Facility management;
- Facility personnel who work with, or around oil;
- Facility personnel who could reasonably be expected to respond in the event of a spill or release of oil; and
- Any other personnel at the discretion of the Primary Emergency Coordinator.

This training is conducted in accordance with the requirements of 40 CFR 112.7 (f)(3) and is designed to ensure employees can successfully perform their job responsibilities and that facility personnel are able to effectively respond to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems.

New employees that meet the above-listed criteria, or employees that assume job responsibilities meeting the above-listed criteria, receive initial training within six months of being hired and/or prior to working unsupervised. Additionally, all facility personnel with job responsibilities meeting the above criteria receive annual refresher training.

The type of training provided to each employee varies depending on the individual employee's level of responsibility with respect to oil management. The Sunflower Wind Primary Emergency Coordinator maintains written descriptions of the different types of training provided for each employee.

Training at the Sunflower Wind facility is conducted internally as on-the-job training or by competent trainers in a formal classroom setting. All training is documented using appropriate forms as determined by the Sunflower Wind Primary Emergency Coordinator, identifying the type of training provided, the date of the training, the name of the employee(s) trained, and the name of the instructor providing the training. These records are maintained by the Sunflower Wind Primary Emergency Coordinator until the facility closes or, for former employees, at least three years from the date that employee was last employed at Sunflower Wind.

3.9 SECURITY

Security is provided at the Sunflower Wind facility to promote facility integrity, safeguard the facility from theft and vandalism, and protect the community from potential hazards associated with theft and vandalism at the facility. The Sunflower Wind facility is located in a remote area. The O&M Building is locked during evenings and on weekends. Additionally, the access gate to the O&M Building is locked during evenings and weekends. The substation is fenced and

the gate locked when no personnel are present. Access to each of the individual turbine towers is also locked.

The facility operations occur 24 hours per day, 365 days per year. The facility is manned during the hours of 0700 to 1530 Monday through Friday. The E.ON Dispatch Center provides 24-hour monitoring for Sunflower Wind. In the event of a failure of the facility systems (e.g., electrical failure), the Primary Emergency Coordinator would be contacted by the E.ON Dispatch Center.

The Sunflower Wind facility is adequately lit to allow visual detection of spills. All areas of the facility with oil-filled operational equipment and oil storage containers are appropriately lit for the type and location of storage to assist in the discovery of a spill and to limit the likelihood of discharges occurring through acts of vandalism.

3.10 OIL HANDLING AND VEHICLE LOADING/UNLOADING PROCEDURES

The following sections describe the general oil handling, and vehicle loading and unloading procedures to be followed at the Sunflower Wind facility.

3.10.1 General Oil Handling Procedures

Activities involving the handling of oil at the Sunflower Wind facility are conducted by qualified personnel familiar with the requirements of this SPCC Plan and involve loading/unloading activities of transformer oils, hydraulic oils, lubricating oils, gear oils and used oils.

3.10.2 Oil Container Loading/Unloading Procedures

Loading/unloading activities include loading/unloading drums of oil to/from delivery trucks. To reduce the likelihood of a release occurring during loading/unloading, Sunflower Wind has implemented loading/unloading procedures as previously described in this SPCC Plan (**Section 3.4.4**).

3.10.3 Oil-Filled Operational Equipment Loading/Unloading Procedures

Loading/unloading activities include transfer of virgin oils into oil-filled operational equipment; draining used oil from oil-filled operational equipment; and transfer of used oil into drums for temporary storage. To reduce the likelihood of a release occurring during these loading/unloading activities, Sunflower Wind has implemented loading/unloading procedures as described in this SPCC Plan (**Section 3.4.4**).

3.10.4 Bulk Storage Containers Loading/Unloading Procedures

Sunflower Wind does not store oil in bulk storage containers.

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TABLE

**TABLE 1
OIL STORAGE TANK, CONTAINER, AND EQUIPMENT INVENTORY**

Sunflower Wind Project
Hebron, North Dakota

ID	CONTAINER TYPE	CAPACITY (Gallons)	CONTENTS	LOCATION	CONSTRUCTION	PIPING	OVERFILL PROTECTION	CORROSION PROTECTION	DISCHARGE PREVENTION & CONTAINMENT	SECONDARY CONTAINMENT CAPACITY (Gallons) ¹	NEAREST POTENTIAL RECEPTOR ²	DISTANCE/DIRECTION TO RECEPTOR (APPROXIMATE)	APPROXIMATE RATE OF FLOW (Gallons/Hour)
1	Drums	2 X 55	Lubricating Oil Hydraulic Oil	O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover Located Indoors	Spill Containment Pallet Floor drains to Oil Water Separator (OWS)	≥61 Gallon Spill Containment Pallet 1,000 Gallon OWS ⁴	Unnamed Tributary to Heart Butte Creek	500 ft Northwest	55
2	Totes	2 X 70	Lubricating Oil Hydraulic Oil	O&M Building	Single Wall Plastic	Not Applicable	Manual Fill	Located Indoors	Spill Containment Rack Floor drains to OWS	≥77 Gallon Spill Containment Rack 1,000 Gallon OWS ⁴	Unnamed Tributary to Heart Butte Creek	500 ft Northwest	70
3	O&M Building Service Transformer	96	Transformer Oil	Outside Northwest corner of the O&M building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Inspections and active containment (e.g. spill kits)	Not Applicable	Unnamed Tributary to Heart Butte Creek	500 ft Northwest	96
GT-11	Grounding Transformer	611	Transformer Oil	Substation	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Steel Transformer within Diked Concrete Pad	1,077	Unnamed Tributary to Heart Butte Creek	885 ft Southeast	611
GT-12	Grounding Transformer	611	Transformer Oil	Substation	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Steel Transformer within Diked Concrete Pad	1,077	Unnamed Tributary to Heart Butte Creek	885 ft Southeast	611
GT-13	Grounding Transformer	611	Transformer Oil	Substation	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Steel Transformer within Diked Concrete Pad	1,077	Unnamed Tributary to Heart Butte Creek	885 ft Southeast	611
GT-14	Grounding Transformer	611	Transformer Oil	Substation	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Steel Transformer within Diked Concrete Pad	1,077	Unnamed Tributary to Heart Butte Creek	885 ft Southeast	611
SS-1	Station Service Transformer	83	Transformer Oil	Substation	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Inspections and active containment (e.g. spill kits)	Not Applicable	Unnamed Tributary to Heart Butte Creek	885 ft Southeast	83
MT-1	Main Transformer	10,696	Transformer Oil	Substation	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Steel Transformer within Diked Concrete Pad	13,802	Unnamed Tributary to Heart Butte Creek	885 ft Southeast	10696
T-01	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	West of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Spring Creek	1,550 ft North	96
T-02	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	West of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Spring Creek	1,490 ft Southeast	96
T-03	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	West of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Spring Creek	1,100 ft North	96
T-04	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	West of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Spring Creek	1,170 ft South- Southwest	96
T-05	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	West of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary of Branch Knife River	1,310 ft Northeast	96

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T-06	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	West of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary of Branch Knife River	570 ft North-Northwest	96
T-07	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	West of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary of Branch Knife River	740 ft West	96
T-08	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	West of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary of Branch Knife River	720 ft West-Northwest	96
T-09	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	West of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary of Branch Knife River	690 ft North	96
T-10	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	West of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary of Branch Knife River	1,180 ft North-Northeast	96
T-11	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	West of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary of Branch Knife River	800 ft West-Northwest	96
T-12	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	West of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary of Branch Knife River	980 ft Northwest	96
T-13	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	North of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary of Branch Knife River	790 ft Northeast	96
T-14	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	East of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Heart Butte Creek	930 ft Southeast	96
T-15	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	East of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Heart Butte Creek	940 ft Southwest	96
T-16	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	East of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary of Branch Knife River	980 ft North-Northwest	96
T-17	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	Northeast of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary of Branch Knife River	900 ft West-Northwest	96
T-18	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	Northeast of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary of Branch Knife River	540 ft West-Southwest	96

**TABLE 1
OIL STORAGE TANK, CONTAINER, AND EQUIPMENT INVENTORY**

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Hebron, North Dakota

ID	CONTAINER TYPE	CAPACITY (Gallons)	CONTENTS	LOCATION	CONSTRUCTION	PIPING	OVERFILL PROTECTION	CORROSION PROTECTION	DISCHARGE PREVENTION & CONTAINMENT	SECONDARY CONTAINMENT CAPACITY (Gallons) ¹	NEAREST POTENTIAL RECEPTOR ²	DISTANCE/DIRECTION TO RECEPTOR (APPROXIMATE)	APPROXIMATE RATE OF FLOW (Gallons/Hour)
T-19	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	Northeast of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary of Branch Knife River	320 ft West-Southwest	96
T-20	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	Northeast of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Spring	430 ft Northeast	96
T-21	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	Southwest of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary of Branch Knife River	330 ft North	96
T-22	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	Southwest of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary of Branch Knife River	890 ft North-Northeast	96
T-23	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	Southwest of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary of Branch Knife River	660 ft West-Northwest	96
T-24	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	Southwest of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary of Branch Knife River	1,090 ft Northwest	96
T-25	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	Southwest of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Heart Butte Creek	640 ft North	96
T-26	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	South of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Heart Butte Creek	620 ft North	96
T-27	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	South of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Heart Butte Creek	530 ft West	96
T-28	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	South of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Heart Butte Creek	610 ft East	96
T-29	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	South of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Heart Butte Creek	780 ft Southwest	96
T-30	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	Southeast of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Heart Butte Creek	720 ft Southwest	96
T-31	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	Southeast of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Heart Butte Creek	760 ft Southeast	96
T-32	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	Southeast of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Heart Butte Creek	1,340 ft Southeast	96
T-33	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	Southeast of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Heart Butte Creek	410 ft Northeast	96
T-34	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	East of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Heart Butte Creek	630 ft Southwest	96
T-35	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	East of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Heart Butte Creek	1,170 ft North-Northwest	96
T-36	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	Southeast of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Heart Butte Creek	1,070 ft North-Northeast	96

**TABLE 1
OIL STORAGE TANK, CONTAINER, AND EQUIPMENT INVENTORY**

Sunflower Wind Project
Hebron, North Dakota

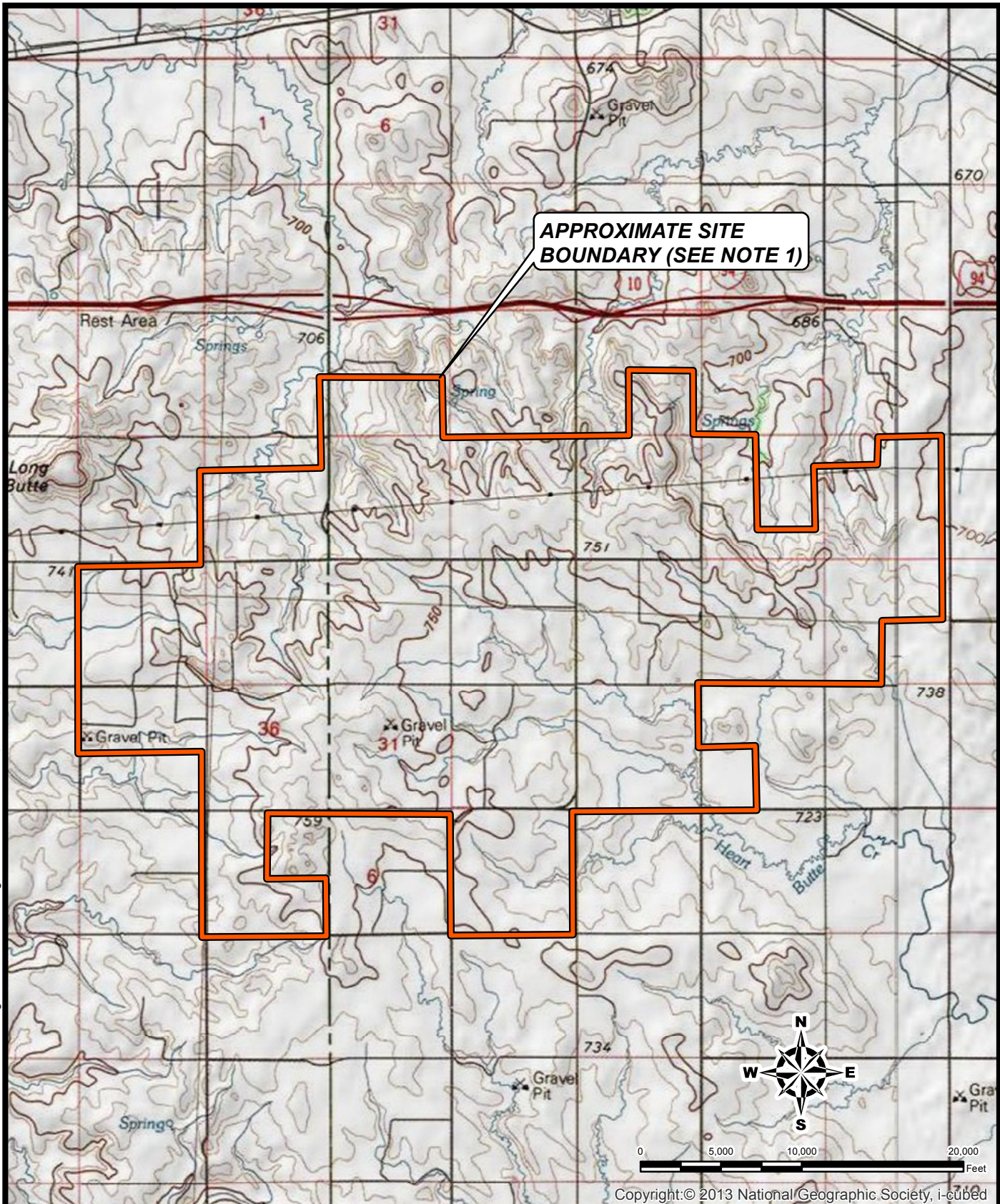
ID	CONTAINER TYPE	CAPACITY (Gallons)	CONTENTS	LOCATION	CONSTRUCTION	PIPING	OVERFILL PROTECTION	CORROSION PROTECTION	DISCHARGE PREVENTION & CONTAINMENT	SECONDARY CONTAINMENT CAPACITY (Gallons) ¹	NEAREST POTENTIAL RECEPTOR ²	DISTANCE/DIRECTION TO RECEPTOR (APPROXIMATE)	APPROXIMATE RATE OF FLOW (Gallons/Hour)
T-37	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	Southeast of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Heart Butte Creek	380 ft North	96
T-38	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	Southeast of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Heart Butte Creek	1,200 ft Southwest	96
T-39	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	East of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Heart Butte Creek	850 ft East-Northeast	96
T-40	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	East of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Heart Butte Creek	1,020 ft South	96
T-41	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	East of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary of Branch Knife River	1,150 ft Northeast	96
T-42	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	East of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary of Branch Knife River	540 ft West-Southwest	96
T-43	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	Southeast of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Heart Butte Creek	840 ft South-Southeast	96
T-44	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	Southeast of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Heart Butte Creek	920 ft North-Northeast	96
T-45	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	East of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Heart Butte Creek	270 ft East	96
T-46	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	East of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Heart Butte Creek	500 ft South-Southeast	96
T-47	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	East of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Heart Butte Creek	900 ft Southwest	96
T-48	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	Southwest of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Spring Creek	590 ft West-Southwest	96
T-49	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	Southwest of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Beaver Creek	910 ft Southeast	96
T-50	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	Southwest of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Heart Butte Creek	1,120 ft Northeast	96
T-51	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	Southwest of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Heart Butte Creek	590 ft Southwest	96
T-52	Turbine oil-filled equipment	96 83	Lubricating Oil Hydraulic Oil	Southwest of the O&M Building	Single Wall Steel	Not Applicable	Manual Fill	Painted Exterior Cover	Spill Deck	200 gallon spill deck ³	Unnamed Tributary to Heart Butte Creek	1,360 ft South-Southeast	96

NOTES:

1. The secondary containment capacity information provided by E.ON.
2. Nearest potential receptors include seasonal tributaries, there are no permanent waterbodies in the vicinity of the site.
3. The secondary containment capacity information of the spill decks was provided to E.On by Vestas.
4. At the time of GZA's site visit the oil storage containers in the O&M building with associated secondary containment were not in place. Sunflower Wind intends to purchase and/or fabricate secondary containment structures with enough capacity to contain 110% of the largest container.

FIGURES

© 2016 - GZA GeoEnvironmental, Inc. P:\04Jobs\0190590\04.0190590.00\Figures-CAD\GIS\MXD\Figure 1 - Locus Portrait.mxd, 12/2/2016, 12:35:35 PM, matthew.deane

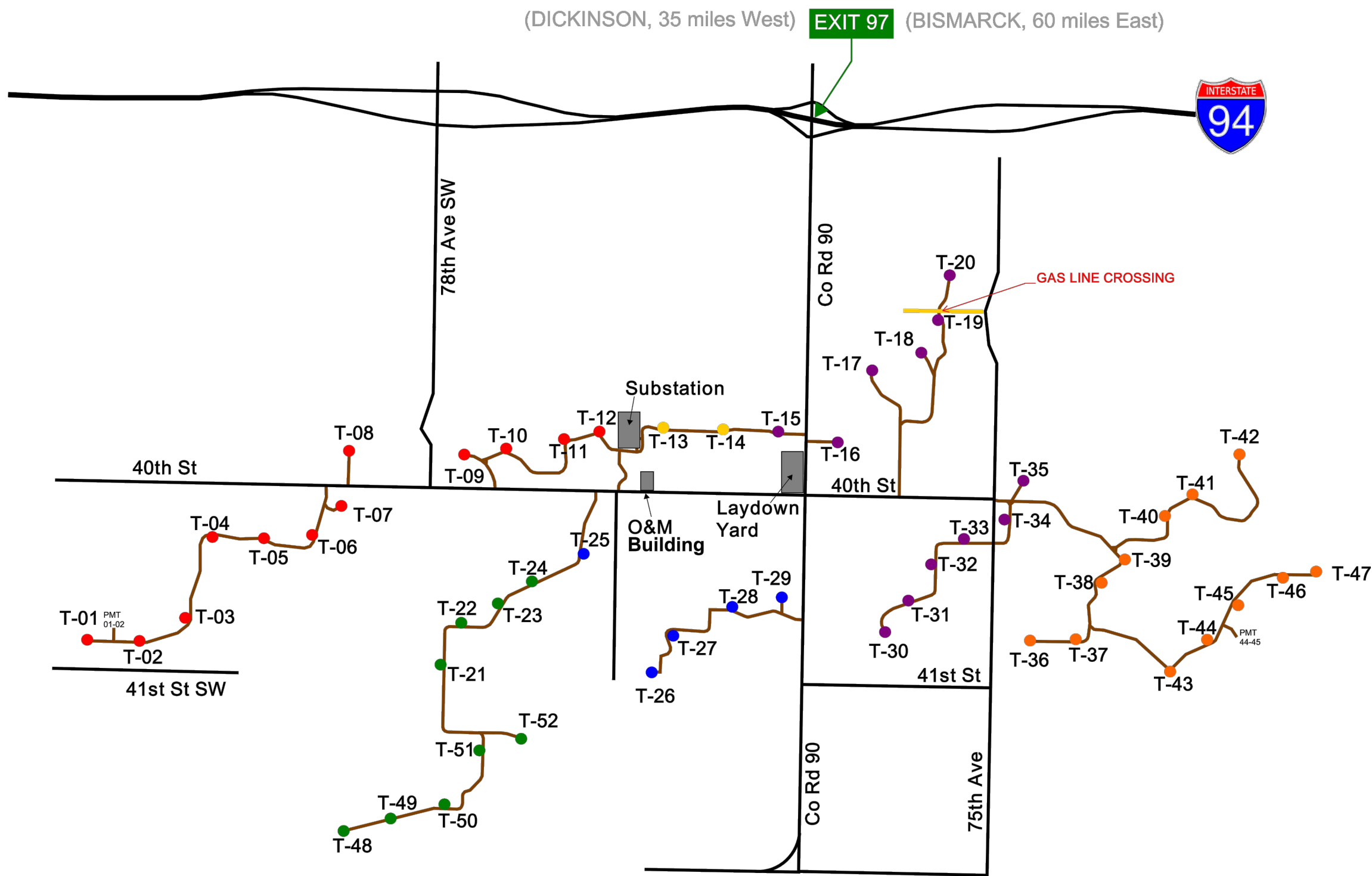


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NOTES
 1) THE APPROXIMATE SITE BOUNDARY WAS OBTAINED FROM FIGURE 2 - PROJECT AREA INCLUDED IN THE SUNFLOWER WIND PROJECT DRAFT ENVIRONMENTAL ASSESSMENT DOE/EA 1966 DATED MAY 2014.

NO.		ISSUE / DESCRIPTION		BY	DATE
PREPARED BY:		GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: SUNFLOWER WIND PROJECT, LLC	
PROJ MGR: DMT		REVIEWED BY: DMT		CHECKED BY: KDB	
DESIGNED BY: DMT		DRAWN BY: MJD		SCALE: 1 in = 8,500 ft	
DATE: DECEMBER 2016		PROJECT NO. 04.0190590.00		REVISION NO.	
SUNFLOWER WIND HEBRON, NORTH DAKOTA				FIGURE 1	
SUNFLOWER WIND LOCUS PLAN					



GENERAL NOTES

1. A TURBINE NACELLE (CONTAINING LUBRICATION AND HYDRAULIC OIL) IS LOCATED AT EACH TURBINE INSTALLATION (INVENTORY ID T1-T52).
2. SEE FIGURE 3 FOR DETAILS RELATED TO OIL STORAGE IN THE O&M BUILDING AND SUBSTATION.
3. THIS PLAN IS ADAPTED FROM A SITE PLAN INCLUDED WITH A DOCUMENT TITLED "SUNFLOWER WIND FARM SITE RULES" WHICH WAS PROVIDED ELECTRONICALLY BY SOLAS ENERGY CONSULTING US, INC. ON NOVEMBER 3, 2016
4. LOCATIONS SHOULD BE CONSIDERED APPROXIMATE

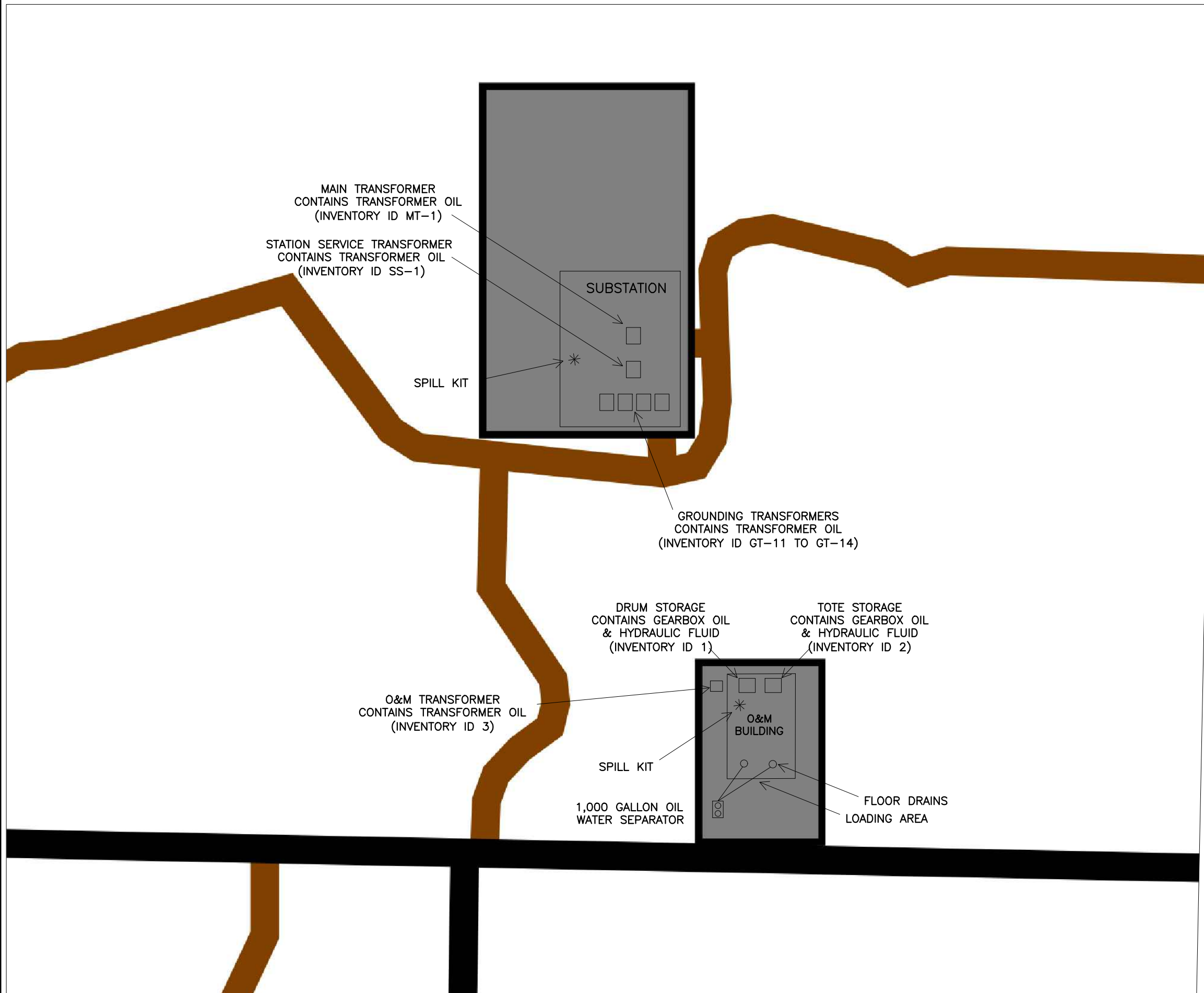
LEGEND

- FEEDER 1 TURBINES
- FEEDER 2A TURBINES
- FEEDER 2B TURBINES
- FEEDER 3 TURBINES
- FEEDER 4A TURBINES
- FEEDER 4B TURBINES

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SITE OVERVIEW PLAN SUNFLOWER WIND HEBRON, NORTH DAKOTA	
SUNFLOWER WIND SPCC PLAN	

PREPARED BY: GZA GeoEnvironmental, Inc. 5 Commerce Park Drive North, Suite 201 Bedford, NH 03110		PREPARED FOR: SUNFLOWER WIND PROJECT, LLC	
PROJ MGR: DMT DESIGNED BY: DMT DATE: DECEMBER 2016	REVIEWED BY: DMT DRAWN BY: SPD PROJECT NO. 04.0190590.00	CHECKED BY: KDB SCALE: NTS REVISION NO.	FIGURE 2 SHEET NO.

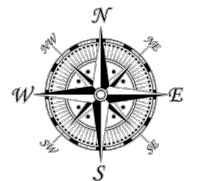


GENERAL NOTES

1. THIS PLAN IS ADAPTED FROM A SITE PLAN INCLUDED WITH A DOCUMENT TITLED "SUNFLOWER WIND FARM SITE RULES" WHICH WAS PROVIDED ELECTRONICALLY BY SOLAS ENERGY CONSULTING US, INC. ON NOVEMBER 3, 2016
2. LOCATIONS SHOULD BE CONSIDERED APPROXIMATE

LEGEND

* SPILL KIT



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**SUBSTATION AND O&M BUILDING LAYOUT PLAN
SUNFLOWER WIND
HEBRON, NORTH DAKOTA**

**SUNFLOWER WIND
SPCC PLAN**

PREPARED BY: GZA GeoEnvironmental, Inc. 5 Commerce Park Drive North, Suite 201 Bedford, NH 03110		PREPARED FOR: SUNFLOWER WIND PROJECT, LLC	
PROJ MGR: DMT DESIGNED BY: DMT DATE: DECEMBER 2016	REVIEWED BY: DMT DRAWN BY: SPD PROJECT NO.: 04.0190590.00	CHECKED BY: KDB SCALE: NTS REVISION NO.:	FIGURE 3 SHEET NO.

APPENDIX A

CERTIFICATION OF SUBSTANTIAL HARM DETERMINATION FORM

CERTIFICATION OF SUBSTANTIAL HARM DETERMINATION FORM

Facility Name: Sunflower Wind Project

Facility Address: 7687 40th Street, Hebron, North Dakota

1. Does the facility have a maximum storage capacity greater than or equal to 42,000 gallons and do the operations include over water transfers of oil to or from vessels?
Yes _____ No X

2. Does the facility have a maximum storage capacity greater than or equal to one million (1,000,000) gallons and is the facility without secondary containment for each aboveground storage area sufficiently large to contain the capacity of the largest aboveground storage tank within the storage area?
Yes _____ No X


3. Does the facility have a maximum storage capacity greater than or equal to one million (1,000,000) 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 as defined in 40 CFR Part 112?
Yes _____ No X

4. Does the facility have a maximum storage capacity greater than or equal to one million (1,000,000) gallons and is the facility located at a distance such that a discharge from the facility would shut down a public drinking water intake?
Yes _____ No X

5. Does the facility have a maximum storage capacity greater than or equal to one million (1,000,000) gallons and within the past 5 years, has the facility experienced a reportable spill in any amount greater than or equal to 10,000 gallons?
Yes _____ No X

FACILITY REPRESENTATIVE CERTIFICATION

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 this information, I believe that the submitted information is true accurate and complete.

 _____ (Signature)	_____ Site Supervisor (Title)
<u>Raitis Sipols</u> _____ (Name)	<u>12-13-16</u> _____ (Date)

APPENDIX B

REGULATORY CROSS REFERENCE

REGULATORY CROSS REFERENCE
US EPA OIL POLLUTION PREVENTION REGULATIONS

REGULATORY CITATION	REGULATORY CITATION REQUIREMENT	PLAN REFERENCE
40 CFR 112.1	General Applicability	Section 1.2
40 CFR 112.3(a)	Requirement to Prepare a SPCC Plan	Section 1.2
40 CFR 112.3(d)	Professional Engineer Certification	Section 1.6.2
40 CFR 112.3(e)	Location of SPCC Plan	Section 1.2.3
40 CFR 112.5	Plan Review and Amendment	Section 1.1.2
40 CFR 112.7	Management Approval	Section 1.6.1
40 CFR 112.7(a)(1)	<p>If you are the owner or operator of a facility subject to this part you must prepare a Plan in accordance with good engineering practices. The Plan must have the full approval of management at a level of authority to commit the necessary resources to fully implement the Plan. You must prepare the Plan in writing. If you do not follow the sequence specified in this section for the Plan, you must prepare an equivalent Plan acceptable to the Regional Administrator that meets all of the applicable requirements listed in this part, and you must supplement it with a section cross-referencing the location of requirements listed in this part and the equivalent requirements in the other prevention plan. If the Plan calls for additional facilities or procedures, methods, or equipment not yet fully operational, you must discuss these items in separate paragraphs, and must explain separately the details of installation and operational start-up. As detailed elsewhere in this section, you must also:</p> <p>(a)(1) Include a discussion of your facility's conformance with the requirements listed in this part.</p>	Entire Plan
40 CFR 112.7(a)(2)	<p>(2) Comply with all applicable requirements listed in this part. Except as provided in §112.6, your Plan may deviate from the requirements in paragraphs (g), (h)(2) and (3), and (i) of this section and the requirements in subparts B and C of this part, except the secondary containment requirements in paragraphs (c) and (h)(1) of this section, and §§112.8(c)(2), 112.8(c)(11), 112.9(c)(2), 112.9(d)(3), 112.10(c), 112.12(c)(2), and 112.12(c)(11), where applicable to a specific facility, if you provide equivalent environmental protection by some other means of spill prevention, control, or countermeasure. Where your Plan does not conform to the applicable requirements in paragraphs (g), (h)(2) and (3), and (i) of this section, or the requirements of subparts B and C of this part, except the secondary containment requirements in paragraph (c) and (h)(1) of this section, and §§112.8(c)(2), 112.8(c)(11), 112.9(c)(2), 112.10(c), 112.12(c)(2), and 112.12(c)(11), you must state the reasons for nonconformance in your Plan and describe in detail alternate methods and how you will achieve equivalent environmental protection. If the Regional Administrator determines that the measures described in your Plan do not provide equivalent environmental protection, he may require that you amend your Plan, following the procedures in §112.4(d) and (e).</p>	Sections 1.2 and 1.5

REGULATORY CROSS REFERENCE
US EPA OIL POLLUTION PREVENTION REGULATIONS

REGULATORY CITATION	REGULATORY CITATION REQUIREMENT	PLAN REFERENCE
40 CFR 112.7(a)(3)	<p>(3) Describe in your Plan the physical layout of the facility and include a facility diagram, which must mark the location and contents of each fixed oil storage container and the storage area where mobile or portable containers are located. The facility diagram must identify the location of and mark as “exempt” underground tanks that are otherwise exempted from the requirements of this part under §112.1(d)(4). The facility diagram must also include all transfer stations and connecting pipes, including intra-facility gathering lines that are otherwise exempted from the requirements of this part under §112.1(d)(11). You must also address in your Plan:</p> <p>(i) The type of oil in each fixed container and its storage capacity. For mobile or portable containers, either provide the type of oil and storage capacity for each container or provide an estimate of the potential number of mobile or portable containers, the types of oil, and anticipated storage capacities;</p> <p>(ii) Discharge prevention measures including procedures for routine handling of products (loading, unloading, and facility transfers, etc.);</p> <p>(iii) Discharge or drainage controls such as secondary containment around containers and other structures, equipment, and procedures for the control of a discharge;</p> <p>(iv) Countermeasures for discharge discovery, response, and cleanup (both the facility's capability and those that might be required of a contractor);</p> <p>(v) Methods of disposal of recovered materials in accordance with applicable legal requirements; and</p> <p>(vi) Contact list and phone numbers for the facility response coordinator, National Response Center, cleanup contractors with whom you have an agreement for response, and all appropriate Federal, State, and local agencies who must be contacted in case of a discharge as described in §112.1(b).</p>	<p>Sections 1.2.1, 1.2.2, 2.2-2.4, 3.2, and 3.10</p> <p>Tab 1</p> <p>Table 1</p> <p>Figures</p>
40 CFR 112.7(a)(4)	<p>(4) Unless you have submitted a response plan under §112.20, provide information and procedures in your Plan to enable a person reporting a discharge as described in §112.1(b) to relate information on the exact address or location and phone number of the facility; the date and time of the discharge, the type of material discharged; estimates of the total quantity discharged; estimates of the quantity discharged as described in §112.1(b); the source of the discharge; a description of all affected media; the cause of the discharge; any damages or injuries caused by the discharge; actions being used to stop, remove, and mitigate the effects of the discharge; whether an evacuation may be needed; and, the names of individuals and/or organizations who have also been contacted.</p>	<p>Section 2.0 (Entire Section)</p> <p>Tab 4</p>
40 CFR 112.7(a)(5)	<p>(5) Unless you have submitted a response plan under §112.20, organize portions of the Plan describing procedures you will use when a discharge occurs in a way that will make them readily usable in an emergency, and include appropriate supporting material as appendices.</p>	<p>Section 2.0 (Entire Section)</p> <p>Tab 2</p> <p>Tab 4</p>
40 CFR 112.7(b)	<p>(b) Where experience indicates a reasonable potential for equipment failure (such as loading or unloading equipment, tank overflow, rupture, or leakage, or any other equipment known to be a source of a discharge), include in your 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 each type of major equipment failure.</p>	<p>Section 3.4, Table 1</p>

REGULATORY CROSS REFERENCE
US EPA OIL POLLUTION PREVENTION REGULATIONS

REGULATORY CITATION	REGULATORY CITATION REQUIREMENT	PLAN REFERENCE
40 CFR 112.7(c)	<p>(c) Provide appropriate containment and/or diversionary structures or equipment to prevent a discharge as described in §112.1(b), except as provided in paragraph (k) of this section for qualified oil-filled operational equipment, and except as provided in §112.9(d)(3) for flowlines and intra-facility gathering lines at an oil production facility. The entire containment system, including walls and floor, must be capable of containing oil and must be constructed so that any discharge from a primary containment system, such as a tank, will not escape the containment system before cleanup occurs. In determining the method, design, and capacity for secondary containment, you need only to address the typical failure mode, and the most likely quantity of oil that would be discharged. Secondary containment may be either active or passive in design. At a minimum, you must use one of the following prevention systems or its equivalent:</p> <p>(1) For onshore facilities:</p> <p>(i) Dikes, berms, or retaining walls sufficiently impervious to contain oil;</p> <p>(ii) Curbing or drip pans;</p> <p>(iii) Sumps and collection systems;</p> <p>(iv) Culverting, gutters, or other drainage systems;</p> <p>(v) Weirs, booms, or other barriers;</p> <p>(vi) Spill diversion ponds;</p> <p>(vii) Retention ponds; or</p> <p>(viii) Sorbent materials.</p> <p>(2) For offshore facilities:</p> <p>(i) Curbing or drip pans; or</p> <p>(ii) Sumps and collection systems.</p>	Section 3.2 Table 1 Appendix G
40 CFR 112.7(d)	<p>(d) Provided your Plan is certified by a licensed Professional Engineer under §112.3(d), or, in the case of a qualified facility that meets the criteria in §112.3(g), the relevant sections of your Plan are certified by a licensed Professional Engineer under §112.6(d), if you determine that the installation of any of the structures or pieces of equipment listed in paragraphs (c) and (h)(1) of this section, and §§112.8(c)(2), 112.8(c)(11), 112.9(c)(2), 112.10(c), 112.12(c)(2), and 112.12(c)(11) to prevent a discharge as described in §112.1(b) from any onshore or offshore facility is not practicable, you must clearly explain in your Plan why such measures are not practicable; for bulk storage containers, conduct both periodic integrity testing of the containers and periodic integrity and leak testing of the valves and piping; and, unless you have submitted a response plan under §112.20, provide in your Plan the following:</p> <p>(1) An oil spill contingency plan following the provisions of part 109 of this chapter.</p> <p>(2) A written commitment of manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful.</p>	Not applicable

REGULATORY CROSS REFERENCE
US EPA OIL POLLUTION PREVENTION REGULATIONS

REGULATORY CITATION	REGULATORY CITATION REQUIREMENT	PLAN REFERENCE
40 CFR 112.7(e)	(e) <i>Inspections, tests, and records.</i> Conduct inspections and tests required by this part in accordance with written procedures that you or the certifying engineer develop for the facility. You must keep these written procedures and a record of the inspections and tests, signed by the appropriate supervisor or inspector, with the SPCC Plan for a period of three years. Records of inspections and tests kept under usual and customary business practices will suffice for purposes of this paragraph.	Section 3.6, Appendix D
40 CFR 112.7(f)(1)	(f) <i>Personnel, training, and discharge prevention procedures.</i> (1) At a minimum, train your oil-handling personnel in the operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules, and regulations; general facility operations; and, the contents of the facility SPCC Plan.	Section 3.8
40 CFR 112.7(f)(2)	(2) Designate a person at each applicable facility who is accountable for discharge prevention and who reports to facility management.	Section 1.2.3 Tab 1
40 CFR 112.7(f)(3)	(3) Schedule and conduct discharge prevention briefings for your oil-handling personnel at least once a year to assure adequate understanding of the SPCC Plan for that facility. Such briefings must highlight and describe known discharges as described in §112.1(b) or failures, malfunctioning components, and any recently developed precautionary measures.	Section 3.8
40 CFR 112.7(g)	(g) <i>Security (excluding oil production facilities).</i> Describe in your Plan how you secure and control access to the oil handling, processing and storage areas; secure master flow and drain valves; prevent unauthorized access to starter controls on oil pumps; secure out-of-service and loading/unloading connections of oil pipelines; and address the appropriateness of security lighting to both prevent acts of vandalism and assist in the discovery of oil discharges.	Section 3.9
40 CFR 112.7(h)	(h) <i>Facility tank car and tank truck loading/unloading rack (excluding offshore facilities).</i> (1) Where loading/unloading rack drainage does not flow into a catchment basin or treatment facility designed to handle discharges, use a quick drainage system for tank car or tank truck loading/unloading racks. You must design any containment system to hold at least the maximum capacity of any single compartment of a tank car or tank truck loaded or unloaded at the facility. (2) Provide an interlocked warning light or physical barrier system, warning signs, wheel chocks or vehicle brake interlock system in the area adjacent to a loading/unloading rack, to prevent vehicles from departing before complete disconnection of flexible or fixed oil transfer lines. (3) Prior to filling and departure of any tank car or tank truck, closely inspect for discharges the lowermost drain and all outlets of such vehicles, and if necessary, ensure that they are tightened, adjusted, or replaced to prevent liquid discharge while in transit.	Not Applicable
40 CFR 112.7(i)	(i) If a field-constructed aboveground container undergoes a repair, alteration, reconstruction, or a change in service that might affect the risk of a discharge or failure due to brittle fracture or other catastrophe, or has discharged oil or failed due to brittle fracture failure or other catastrophe, evaluate the container for risk of discharge or failure due to brittle fracture or other catastrophe, and as necessary, take appropriate action.	Not Applicable

REGULATORY CROSS REFERENCE
US EPA OIL POLLUTION PREVENTION REGULATIONS

REGULATORY CITATION	REGULATORY CITATION REQUIREMENT	PLAN REFERENCE
40 CFR 112.7(j)	(j) In addition to the minimal prevention standards listed under this section, include in your Plan a complete discussion of conformance with the applicable requirements and other effective discharge prevention and containment procedures listed in this part or any applicable more stringent State rules, regulations, and guidelines.	Sections 1.3 and 3.0 (Entire Section)
40 CFR 112.7(k)	<p>(k) <i>Qualified Oil-filled Operational Equipment.</i> The owner or operator of a facility with oil-filled operational equipment that meets the qualification criteria in paragraph (k)(1) of this sub-section may choose to implement for this qualified oil-filled operational equipment the alternate requirements as described in paragraph (k)(2) of this sub-section in lieu of general secondary containment required in paragraph (c) of this section.</p> <p>(1) <i>Qualification Criteria—Reportable Discharge History:</i> The owner or operator of a facility that has had no single discharge as described in §112.1(b) from any oil-filled operational equipment exceeding 1,000 U.S. gallons or no two discharges as described in §112.1(b) from any oil-filled operational equipment each exceeding 42 U.S. gallons within any twelve month period in the three years prior to the SPCC Plan certification date, or since becoming subject to this part if the facility has been in operation for less than three years (other than oil discharges as described in §112.1(b) that are the result of natural disasters, acts of war or terrorism); and</p> <p>(2) <i>Alternative Requirements to General Secondary Containment.</i> If secondary containment is not provided for qualified oil-filled operational equipment pursuant to paragraph (c) of this section, the owner or operator of a facility with qualified oil-filled operational equipment must:</p> <p>(i) Establish and document the facility procedures for inspections or a monitoring program to detect equipment failure and/or a discharge; and</p> <p>(ii) Unless you have submitted a response plan under §112.20, provide in your Plan the following:</p> <p>(A) An oil spill contingency plan following the provisions of part 109 of this chapter.</p> <p>(B) A written commitment of manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful.</p>	Not Applicable
40 CFR 112.8(a)	<p>If you are the owner or operator of an onshore facility (excluding a production facility), you must:</p> <p>(a) Meet the general requirements for the Plan listed under §112.7, and the specific discharge prevention and containment procedures listed in this section.</p>	Entire Plan

REGULATORY CROSS REFERENCE
US EPA OIL POLLUTION PREVENTION REGULATIONS

REGULATORY CITATION	REGULATORY CITATION REQUIREMENT	PLAN REFERENCE
40 CFR 112.8(b)	<p>(b) <i>Facility drainage.</i> (1) Restrain drainage from diked storage areas by valves to prevent a discharge into the drainage system or facility effluent treatment system, except where facility systems are designed to control such discharge. You may empty diked areas by pumps or ejectors; however, you must manually activate these pumps or ejectors and must inspect the condition of the accumulation before starting, to ensure no oil will be discharged.</p> <p>(2) Use valves of manual, open-and-closed design, for the drainage of diked areas. You may not use flapper-type drain valves to drain diked areas. If your facility drainage drains directly into a watercourse and not into an on-site wastewater treatment plant, you must inspect and may drain uncontaminated retained stormwater, as provided in paragraphs (c)(3)(ii), (iii), and (iv) of this section.</p> <p>(3) Design facility drainage systems from undiked areas with a potential for a discharge (such as where piping is located outside containment walls or where tank truck discharges may occur outside the loading area) to flow into ponds, lagoons, or catchment basins designed to retain oil or return it to the facility. You must not locate catchment basins in areas subject to periodic flooding.</p> <p>(4) If facility drainage is not engineered as in paragraph (b)(3) of this section, equip the final discharge of all ditches inside the facility with a diversion system that would, in the event of an uncontrolled discharge, retain oil in the facility.</p> <p>(5) Where drainage waters are treated in more than one treatment unit and such treatment is continuous, and pump transfer is needed, provide two “lift” pumps and permanently install at least one of the pumps. Whatever techniques you use, you must engineer facility drainage systems to prevent a discharge as described in §112.1(b) in case there is an equipment failure or human error at the facility.</p>	Sections 3.2.1 and 3.5
40 CFR 112.8(c)(1)	(c) <i>Bulk storage containers.</i> (1) Not use a container for the storage of oil unless its material and construction are compatible with the material stored and conditions of storage such as pressure and temperature.	Not Applicable
40 CFR 112.8(c)(2)	(2) Construct all bulk storage tank installations (except mobile refuelers and other non-transportation-related tank trucks) so that you provide a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation. You must ensure that diked areas are sufficiently impervious to contain discharged oil. Dikes, containment curbs, and pits are commonly employed for this purpose. You may also use an alternative system consisting of a drainage trench enclosure that must be arranged so that any discharge will terminate and be safely confined in a facility catchment basin or holding pond.	Not Applicable

REGULATORY CROSS REFERENCE
US EPA OIL POLLUTION PREVENTION REGULATIONS

REGULATORY CITATION	REGULATORY CITATION REQUIREMENT	PLAN REFERENCE
40 CFR 112.8(c)(3)	<p>(3) Not allow drainage of uncontaminated rainwater from the diked area into a storm drain or discharge of an effluent into an open watercourse, lake, or pond, bypassing the facility treatment system unless you:</p> <p>(i) Normally keep the bypass valve sealed closed.</p> <p>(ii) Inspect the retained rainwater to ensure that its presence will not cause a discharge as described in §112.1(b).</p> <p>(iii) Open the bypass valve and reseal it following drainage under responsible supervision; and</p> <p>(iv) Keep adequate records of such events, for example, any records required under permits issued in accordance with §§122.41(j)(2) and 122.41(m)(3) of this chapter.</p>	Sections 3.2.1 and 3.5
40 CFR 112.8(c)(4)	<p>(4) Protect any completely buried metallic storage tank installed on or after January 10, 1974 from corrosion by coatings or cathodic protection compatible with local soil conditions. You must regularly leak test such completely buried metallic storage tanks.</p>	Not Applicable
40 CFR 112.8(c)(5)	<p>(5) Not use partially buried or bunkered metallic tanks for the storage of oil, unless you protect the buried section of the tank from corrosion. You must protect partially buried and bunkered tanks from corrosion by coatings or cathodic protection compatible with local soil conditions.</p>	Not Applicable
40 CFR 112.8(c)(6)	<p>(6) Test or inspect each aboveground container for integrity on a regular schedule and whenever you make material repairs. You must determine, in accordance with industry standards, the appropriate qualifications for personnel performing tests and inspections, the frequency and type of testing and inspections, which take into account container size, configuration, and design (such as containers that are: shop-built, field-erected, skid-mounted, elevated, equipped with a liner, double-walled, or partially buried). Examples of these integrity tests include, but are not limited to: visual inspection, hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emissions testing, or other systems of non-destructive testing. You must keep comparison records and you must also inspect the container's supports and foundations. In addition, you must frequently inspect the outside of the container for signs of deterioration, discharges, or accumulation of oil inside diked areas. Records of inspections and tests kept under usual and customary business practices satisfy the recordkeeping requirements of this paragraph.</p>	Sections 3.6 and 3.7 Appendix D

REGULATORY CROSS REFERENCE
US EPA OIL POLLUTION PREVENTION REGULATIONS

REGULATORY CITATION	REGULATORY CITATION REQUIREMENT	PLAN REFERENCE
40 CFR 112.8(c)(7)	(7) Control leakage through defective internal heating coils by monitoring the steam return and exhaust lines for contamination from internal heating coils that discharge into an open watercourse, or pass the steam return or exhaust lines through a settling tank, skimmer, or other separation or retention system.	Not Applicable
40 CFR 112.8(c)(8)	(8) Engineer or update each container installation in accordance with good engineering practice to avoid discharges. You must provide at least one of the following devices: (i) High liquid level alarms with an audible or visual signal at a constantly attended operation or surveillance station. In smaller facilities an audible air vent may suffice. (ii) High liquid level pump cutoff devices set to stop flow at a predetermined container content level. (iii) Direct audible or code signal communication between the container gauger and the pumping station. (iv) A fast response system for determining the liquid level of each bulk storage container such as digital computers, telepulse, or direct vision gauges. If you use this alternative, a person must be present to monitor gauges and the overall filling of bulk storage containers. (v) You must regularly test liquid level sensing devices to ensure proper operation.	Not Applicable
40 CFR 112.8(c)(9)	(9) Observe effluent treatment facilities frequently enough to detect possible system upsets that could cause a discharge as described in §112.1(b).	Not Applicable
40 CFR 112.8(c)(10)	(10) Promptly correct visible discharges which result in a loss of oil from the container, including but not limited to seams, gaskets, piping, pumps, valves, rivets, and bolts. You must promptly remove any accumulations of oil in diked areas.	Section 3.6, Appendix D
40 CFR 112.8(c)(11)	(11) Position or locate mobile or portable oil storage containers to prevent a discharge as described in §112.1(b). Except for mobile refuelers and other non-transportation-related tank trucks, you must furnish a secondary means of containment, such as a dike or catchment basin, sufficient to contain the capacity of the largest single compartment or container with sufficient freeboard to contain precipitation.	Sections 3.2.2
40 CFR 112.8(d)(1)	(d) <i>Facility transfer operations, pumping, and facility process.</i> (1) Provide buried piping that is installed or replaced on or after August 16, 2002, with a protective wrapping and coating. You must also cathodically protect such buried piping installations or otherwise satisfy the corrosion protection standards for piping in part 280 of this chapter or a State program approved under part 281 of this chapter. If a section of buried line is exposed for any reason, you must carefully inspect it for deterioration. If you find corrosion damage, you must undertake additional examination and corrective action as indicated by the magnitude of the damage.	Not Applicable
40 CFR 112.8(d)(2)	(2) Cap or blank-flange the terminal connection at the transfer point and mark it as to origin when piping is not in service or is in standby service for an extended time.	Not Applicable

REGULATORY CROSS REFERENCE
US EPA OIL POLLUTION PREVENTION REGULATIONS

REGULATORY CITATION	REGULATORY CITATION REQUIREMENT	PLAN REFERENCE
40 CFR 112.8(d)(3)	(3) Properly design pipe supports to minimize abrasion and corrosion and allow for expansion and contraction.	Not Applicable
40 CFR 112.8(d)(4)	(4) Regularly inspect all aboveground valves, piping, and appurtenances. During the inspection you must assess the general condition of items, such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces. You must also conduct integrity and leak testing of buried piping at the time of installation, modification, construction, relocation, or replacement.	Section 3.6, Appendix D
40 CFR 112.8(d)(5)	(5) Warn all vehicles entering the facility to be sure that no vehicle will endanger aboveground piping or other oil transfer operations.	Not Applicable
40 CFR 112.9	Spill Prevention, Control, and Countermeasure Plan requirements for onshore oil production facilities	Not Applicable
40 CFR 112.10	Spill Prevention, Control, and Countermeasure Plan requirements for onshore oil drilling and workover facilities	Not Applicable
40 CFR 112.11	Spill Prevention, Control, and Countermeasure Plan requirements for offshore oil drilling, production, or workover facilities	Not Applicable
40 CFR 112.12	Spill Prevention, Control, and Countermeasure Plan requirements	Not Applicable
40 CFR 112.20	Facility response plans	Not Applicable
40 CFR 112.21	Facility response training and drills/exercises	Not Applicable

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APPENDIX C

INVENTORY OF SPILL CONTROL EQUIPMENT

SPILL RESPONSE EQUIPMENT

EQUIPMENT	QUANTITY ¹	LOCATION
Communications		
Telephone – Cellular	Varies	On Personnel
Telephone – Land Line	1	O&M Building
Handheld Radio	Varies	On Personnel
	1	O&M Building
Personal Protective Equipment		
Safety Glasses	Varies	O&M Building
Hard Hats	Varies	O&M Building
Impervious Boots and Gloves	Varies	O&M Building
Impervious Gloves	Varies	O&M Building
Eye Wash Station	1	Sub Station
Spill Response Equipment		
Fire Extinguisher	1	Sub Station
	1	O&M Building
Spill Response Kit (includes absorbent pillows, pads, and socks; safety glasses, gloves, repair putty, plastic bags, and zip ties)	1	Sub Station
	1	O&M Building

¹ Quantities are based on information and observations gathered during site reconnaissance. Actual quantities may vary.

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APPENDIX D
SPCC INSPECTION FORM

SPCC INSPECTION FORM

Sunflower Wind Project
Hebron, North Dakota

Date of Inspection: _____ Inspector Name and Title: _____ Inspector Signature: _____

ID	Oil Storage System	Location	Contents	Storage Capacity (Gallons)	Inspection Frequency	Description of Deficiency (if observed) ¹	Corrective Action
<p>Inspect exterior surfaces of tank, pipes, valves, oil filled equipment, and other associated equipment for:</p> <p>(1) deficiencies such as leaks, seepage, surface wetting, or discoloration;</p> <p>(2) structural damage such as cracks, areas of wear, visible shell thinning, blistering, corrosion, distortion, separation, swelling, excessive settlement, or foundation weaknesses;</p> <p>Inspect aboveground storage tanks for the condition of level gauge, vent whistle alarm, tank labels (product label, NFPA label, safe fill volume label);</p> <p>Inspect piping for loose joints, damage to supports, and pipe deflection.</p> <p>Inspect connections for leakage, drainage, tightness, and appropriate capping.</p> <p>Inspect ancillary equipment for evidence of leakage, proper operation, and damage.</p> <p>Inspect storage areas and secondary containment structures for condition of containment floor, roof condition, presence of standing water or snow/ice, accumulation of stored product.</p> <p>Check the security of areas and equipment.</p> <p>Inspect spill kits to ensure they are properly stocked.</p>							
1	Drums	Inside O&M Building	Gearbox Oil	1 x 55	Monthly		
			Hydraulic Oil	1 x 55	Monthly		
2	Totes	Inside O&M Building	Gearbox Oil	1 x 70	Monthly		
			Hydraulic Oil	1 x 70			
3	O&M Transformer	Outside O&M Building	Transformer Oil	96	Monthly		

¹If a release of petroleum has been discovered or is suspected notify the Primary Emergency Coordinator immediately. If a deficiency is identified during the inspection, it must be corrected as soon as practical. For simple deficiencies, the action taken to correct the deficiency should be noted on the inspection form. Inspection records must be kept for a minimum of three years.

SPCC INSPECTION FORM

Sunflower Wind Project
Hebron, North Dakota

Date of Inspection: _____ Inspector Name and Title: _____ Inspector Signature: _____

ID	Oil Storage System	Location	Contents	Storage Capacity (Gallons)	Inspection Frequency	Description of Deficiency (if observed) ¹	Corrective Action
<p>Inspect exterior surfaces of tank, pipes, valves, oil filled equipment, and other associated equipment for:</p> <ul style="list-style-type: none"> (1) deficiencies such as leaks, seepage, surface wetting, or discoloration; (2) structural damage such as cracks, areas of wear, visible shell thinning, blistering, corrosion, distortion, separation, swelling, excessive settlement, or foundation weaknesses; <p>Inspect aboveground storage tanks for the condition of level gauge, vent whistle alarm, tank labels (product label, NFPA label, safe fill volume label);</p> <p>Inspect piping for loose joints, damage to supports, and pipe deflection.</p> <p>Inspect connections for leakage, drainage, tightness, and appropriate capping.</p> <p>Inspect ancillary equipment for evidence of leakage, proper operation, and damage.</p> <p>Inspect storage areas and secondary containment structures for condition of containment floor, roof condition, presence of standing water or snow/ice, accumulation of stored product.</p> <p>Check the security of areas and equipment.</p> <p>Inspect spill kits to ensure they are properly stocked.</p>							
GT-11	Grounding Transformer	Substation Yard	Transformer Oil	611	Monthly		
GT-12	Grounding Transformer	Substation Yard	Transformer Oil	611	Monthly		
GT-13	Grounding Transformer	Substation Yard	Transformer Oil	611	Monthly		
GT-14	Grounding Transformer	Substation Yard	Transformer Oil	611	Monthly		

SPCC INSPECTION FORM

Sunflower Wind Project
Hebron, North Dakota

Date of Inspection: _____ Inspector Name and Title: _____ Inspector Signature: _____

ID	Oil Storage System	Location	Contents	Storage Capacity (Gallons)	Inspection Frequency	Description of Deficiency (if observed) ¹	Corrective Action
<p>Inspect exterior surfaces of tank, pipes, valves, oil filled equipment, and other associated equipment for:</p> <ul style="list-style-type: none"> (1) deficiencies such as leaks, seepage, surface wetting, or discoloration; (2) structural damage such as cracks, areas of wear, visible shell thinning, blistering, corrosion, distortion, separation, swelling, excessive settlement, or foundation weaknesses; <p>Inspect aboveground storage tanks for the condition of level gauge, vent whistle alarm, tank labels (product label, NFPA label, safe fill volume label);</p> <p>Inspect piping for loose joints, damage to supports, and pipe deflection.</p> <p>Inspect connections for leakage, drainage, tightness, and appropriate capping.</p> <p>Inspect ancillary equipment for evidence of leakage, proper operation, and damage.</p> <p>Inspect storage areas and secondary containment structures for condition of containment floor, roof condition, presence of standing water or snow/ice, accumulation of stored product.</p> <p>Check the security of areas and equipment.</p> <p>Inspect spill kits to ensure they are properly stocked.</p>							
SS-1	Station Service Transformer	Substation Yard	Transformer Oil	83	Monthly		
MT-1	Main Transformer	Substation Yard	Transformer Oil	10,696	Monthly		
T-01 through T-52	Nacelle	Wind Turbines T-01 through T-52	Lubricating Oil Hydraulic Oil	52 x 96 52 x 83	Monthly		

RECORD OF INSPECTION, DRAINAGE, AND OIL REMOVAL FROM SECONDARY CONTAINMENT

Sunflower Wind Project
Hebron, North Dakota

INSPECTION PROCEDURE:					
<i>Observe liquid in secondary containment for oil, oil sheen, or evidence of contact with any contaminants. Note: If oil or contaminants are present, dispose of properly and do not discharge to environment.</i>					
ID	Date of Drainage/Pumping	Contaminants Present? (If yes, describe)	Time of Drainage / Pumping		Individual Conducting Inspection / Signature
			Start	End	

APPENDIX E
SPILL REPORTING GUIDE

SPILL REPORTING GUIDE - VERBAL NOTIFICATION			
Type of Spill	Who to Call		Time Frame
Any spill	Primary Emergency Coordinator or Alternate Emergency Coordinator		Immediately
Any spill or discharge of liquid or solid (not gaseous) waste which may cause pollution of waters of the state must be reported immediately. Specific minimum quantities for mandatory reporting of spills have not been established. All spills which may potentially impact waters of the state, either surface water or groundwater, must be reported.	North Dakota Department of Health or the North Dakota Spill Reporting Number (24 hours)		Immediately
	For Sunflower Wind Site:	City of Hebron Fire Department	
Any spill involving a release of any quantity of oil to navigable waters or drainage feature that discharges to navigable waters. NOTE: EPA requires reporting to the NRC for oil spills to navigable waters or adjoining shorelines. EPA has determined that discharges of oil in quantities that may be harmful to public health or the environment include those that: <ul style="list-style-type: none"> • Violate applicable water quality standards; • 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. 	National Response Center (NRC)		Immediately
Any spill determined to require outside assistance for spill response	Spill Response Contractor		As soon as need is determined

SPILL REPORTING REQUIREMENTS – WRITTEN NOTIFICATION		
Type of Spill	Where to Send Written Reports	Time Frame
<p>Specific minimum quantities for mandatory reporting of spills have not been established. All incidents which may potentially impact human health or safety or waters of the State including surface water or groundwater must be reported.</p>	<p>Complete online reporting form: <i>http://www.ndhealth.gov/ehs/eir/NonOilField/</i></p>	As Soon as Possible
<p>40 CFR Part 112.4(a) requires that the facility file a written report to the EPA Region 1 Administrator under the following circumstances:</p> <ul style="list-style-type: none"> • If an oil discharge of more than 1,000 gallons occurs in a single spill event; AND • If the release(s) enter navigable waters (i.e., the adjacent wetlands); OR • If a discharge of more than 42 gallons of oil occurs in each of two discrete spill events within any 12-month period; AND • If the release(s) enter navigable waters (i.e., the adjacent wetlands). 	<p>USEPA Mountains and Plains Region 8 1595 Wynkoop Street Denver, CO 80202-1129</p>	Within 60 days of the release
INFORMATION TO INCLUDE IN EPA SPILL REPORT		
<ul style="list-style-type: none"> • Name of the facility; • Name(s) of the owner or operator of the facility; • Location of the facility; • Maximum storage or handling capacity of the facility and normal daily volume of oil used or consumed; • The corrective actions and/or countermeasures taken, including a description of equipment repairs or replacements; • An adequate description of the facility, including maps, flow diagrams and topographical maps; • The cause(s) of such release, including a failure analysis of the system or subsystem in which a failure occurred; • Additional preventive measures taken or contemplated to minimize the possibility of recurrence; and • Such other information as the EPA Region 1 Administrator may reasonably require pertinent to the Plan or spill event. <p>In accordance with 40 CFR Part 112.4(c), EPA will conduct a review and may require that the facility take additional measures, including procedures, methods, equipment and other requirements necessary to prevent and contain discharges of oil from the facility.</p>		

APPENDIX F

SECONDARY CONTAINMENT CALCULATIONS

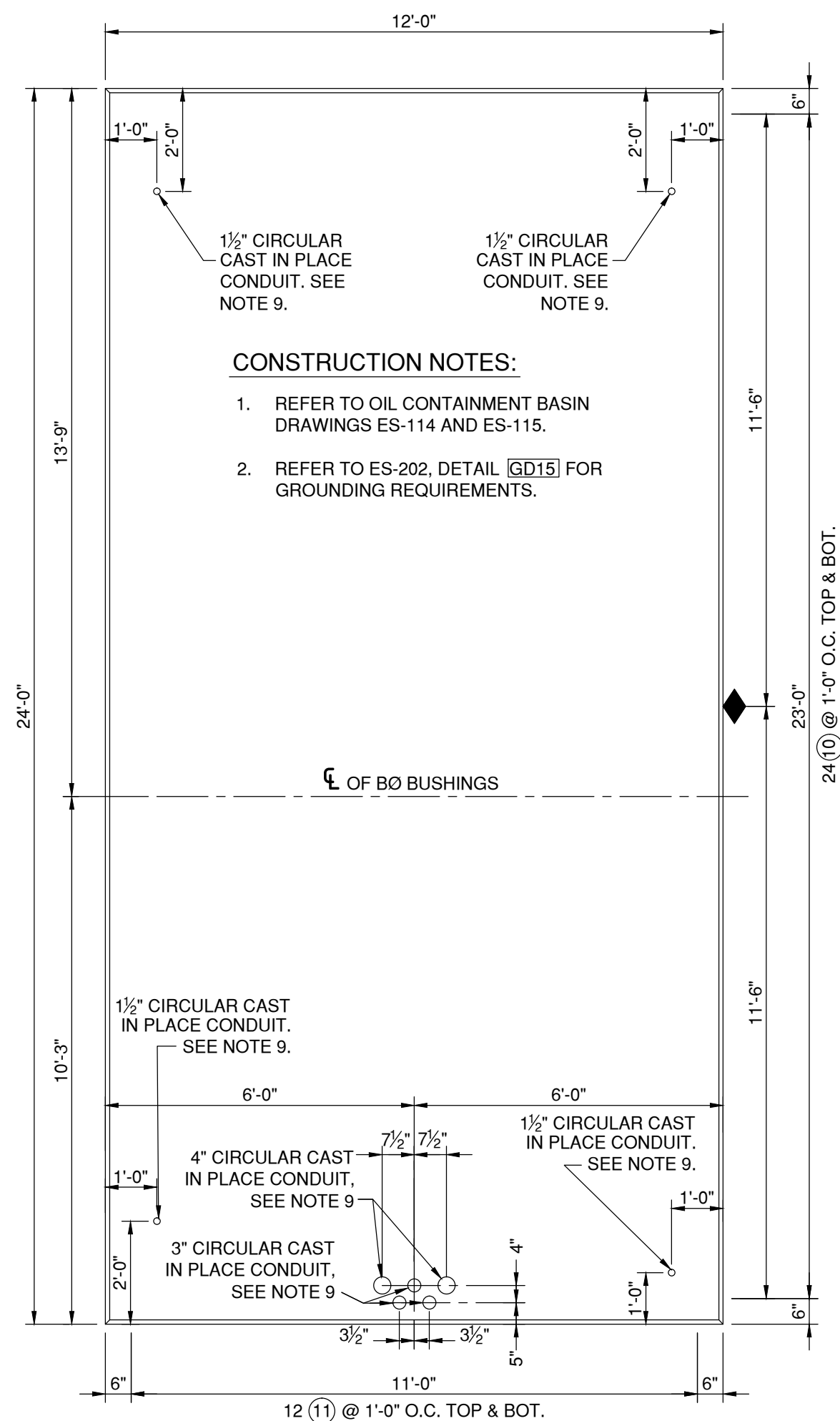
SECONDARY CONTAINMENT CALCULATIONS
Sunflower Wind Project
Hebron, ND

ID	CAPACITY (Gallons)	CONTENTS	LOCATION	DISCHARGE PREVENTION & CONTAINMENT	CONTAINMENT AREA DIMENSIONS	SECONDARY CONTAINMENT CAPACITY (Gallons)
1	2 X 55	Hydraulic Oil, Lubricating Oil	Inside O&M Building	Spill Containment Pallet	Manufacturer's Specifications ¹	≥61
2	2 X 70	Hydraulic Oil, Lubricating Oil	Inside O&M Building	Spill Containment Rack	Manufacturer's Specifications ¹	>77
3	96	Transformer Oil	Outside O&M Building	Inspections and active containment (e.g. spill kits/sorbent materials)	None	N/A
GT-11	611	Transformer Oil	Substation Yard	Steel Transformer within Diked Concrete Pad.	11' x 11' x 2' (Containment) - 7' x 7' x 2' (Transformer) ¹	1,077
GT-12	611	Transformer Oil	Substation Yard	Steel Transformer within Diked Concrete Pad.	11' x 11' x 2' (Containment) - 7' x 7' x 2' (Transformer) ¹	1,077
GT-13	611	Transformer Oil	Substation Yard	Steel Transformer within Diked Concrete Pad.	11' x 11' x 2' (Containment) - 7' x 7' x 2' (Transformer) ¹	1,077
GT-14	611	Transformer Oil	Substation Yard	Steel Transformer within Diked Concrete Pad.	11' x 11' x 2' (Containment) - 7' x 7' x 2' (Transformer) ¹	1,077
SS-1	83	Transformer Oil	Substation Yard	Inspections and active containment (e.g. spill kits)	None	N/A
MT-1	10,696	Transformer Oil	Substation Yard	Steel Transformer within Diked Concrete Pad.	38' x 27' x 2' 6" (Containment) - 24' x 12' x 2' 6" (Transformer) ¹	13,802
T-01 through T-52	96	Lubricating Oil	Turbine Nacelles	Spill Deck	Manufacturer's Specifications ²	200
	83	Hydraulic Oil				

1. The secondary containment capacity information for the electrical transformers, spill racks, and spill pallets was provided by E.ON. At the time of GZA's site visit the oil storage containers in the O&M building with associated secondary containment were not in place. Sunflower Wind intends to purchase and/or fabricate secondary containment structures with enough capacity to contain 110% of the largest container.

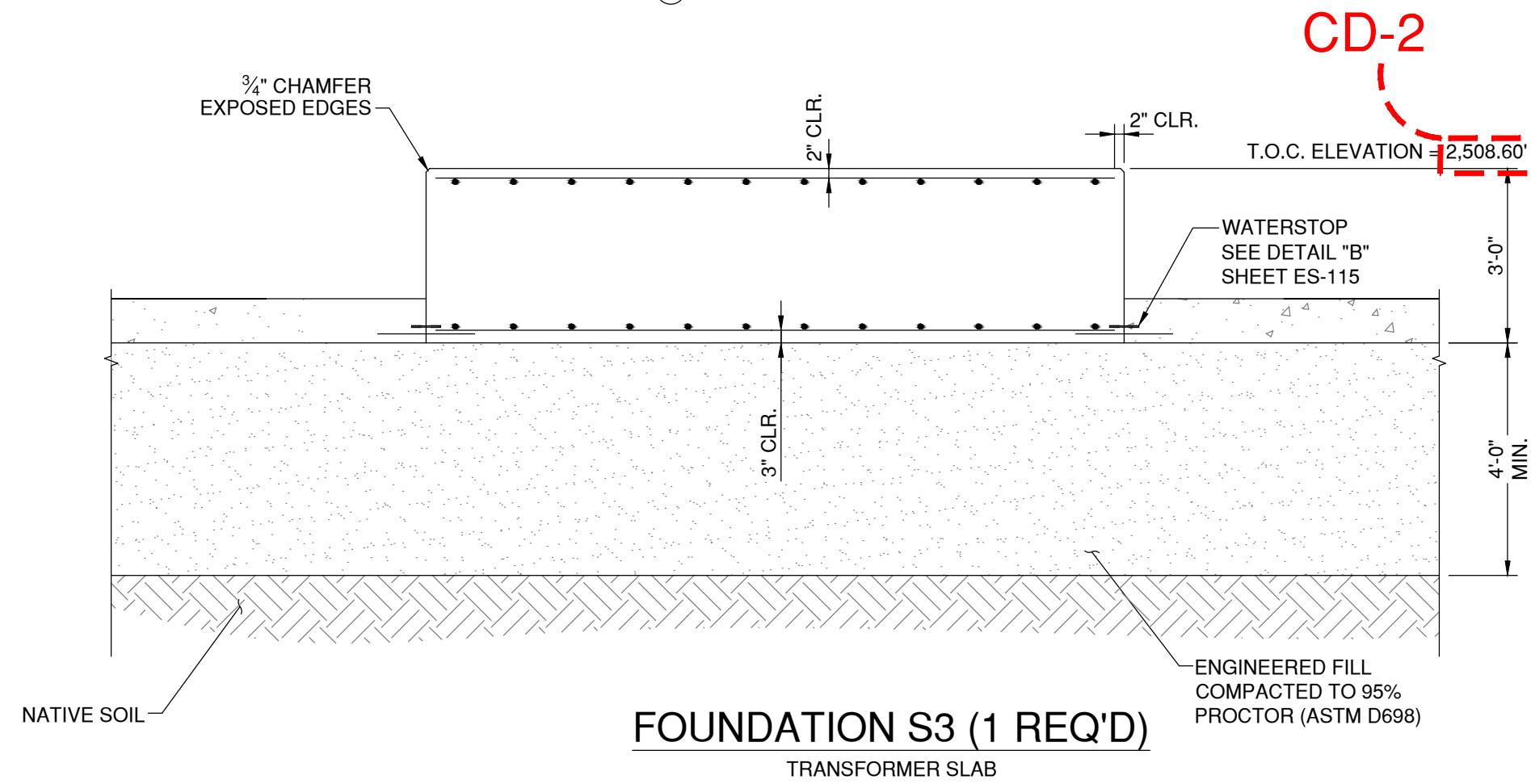
2. The secondary containment capacity information for the spill decks for each turbine was provided to E.ON by Vestas.

APPENDIX G
FACILITY INFORMATION

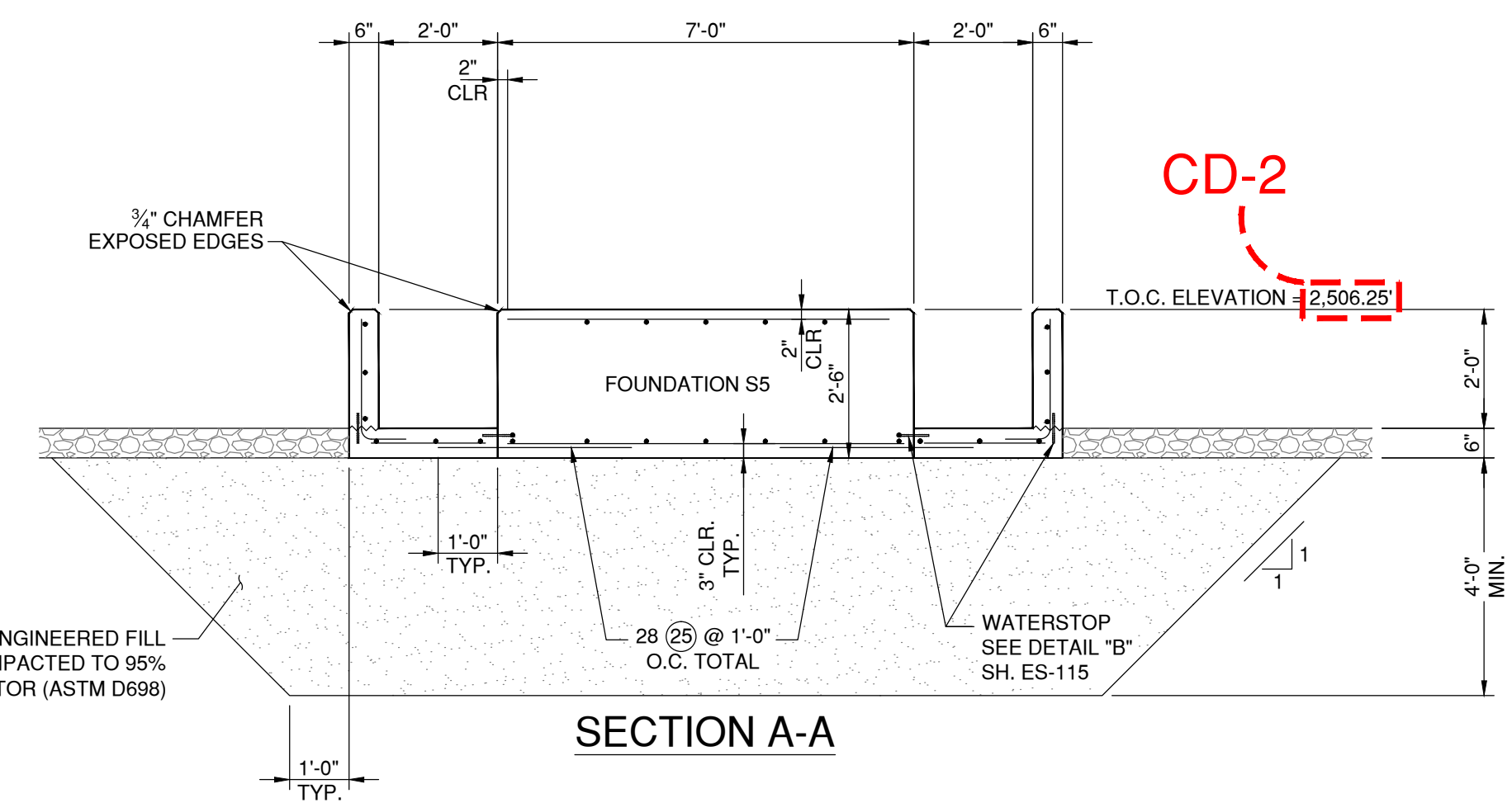
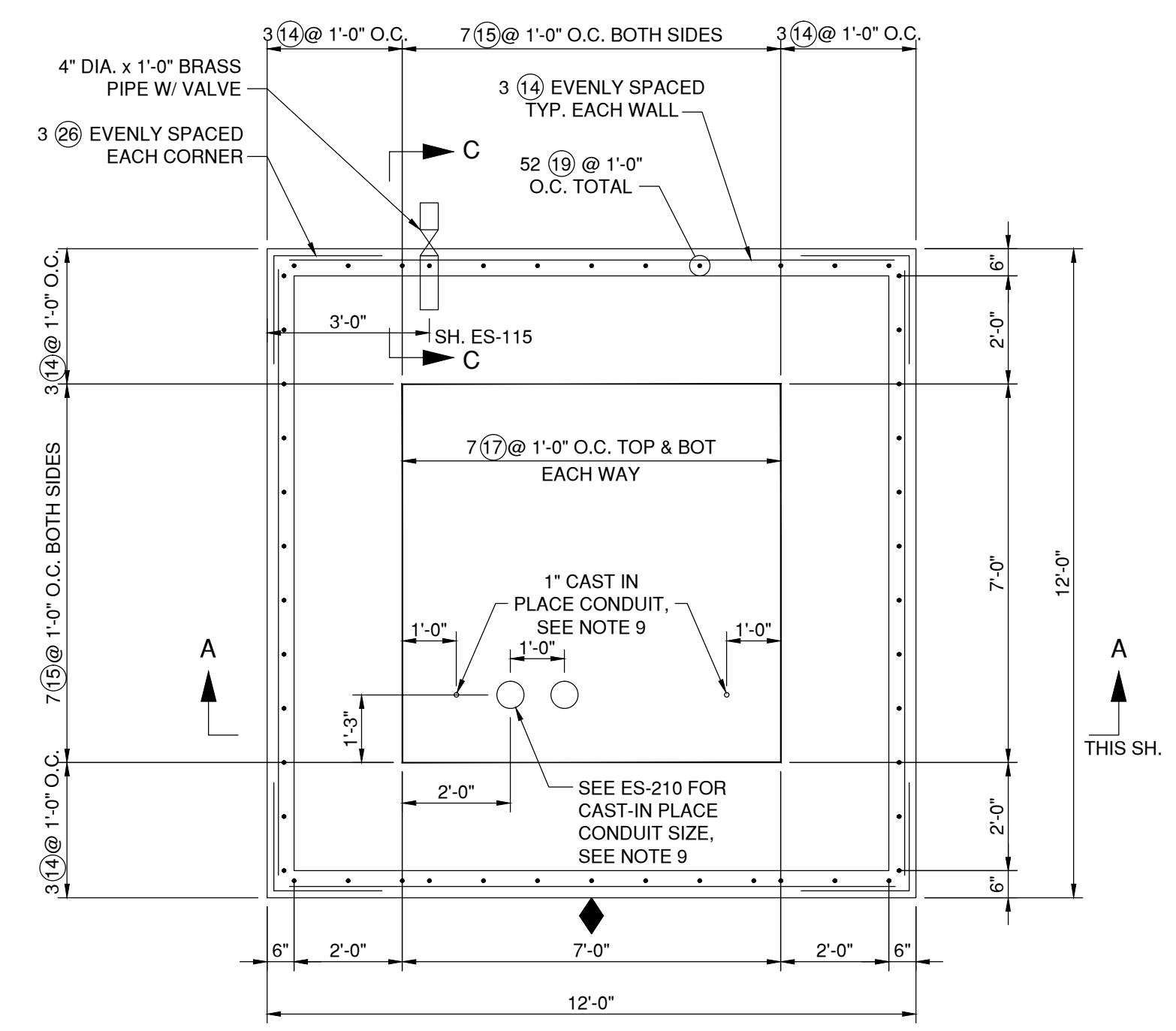


CONSTRUCTION NOTES:

- REFER TO OIL CONTAINMENT BASIN DRAWINGS ES-114 AND ES-115.
- REFER TO ES-202, DETAIL (GD15) FOR GROUNDING REQUIREMENTS.



FOUNDATION S3 (1 REQ'D)
TRANSFORMER SLAB



FOUNDATION S5 (4 REQ'D)
34.5KV GROUNDING XFMR SLAB/OIL CONTAINMENT

BAR BENDING DATA

BAR SIZE	END HOOKS		STIRRUP & TIE HOOKS	
	180° HOOKS	90° HOOKS	D	90° HOOKS
3	A or G	J	A or G	A or G
4	3	6"	4"	8"
5	3	7"	5"	10"
6	4	8"	6"	1'-0"
7	5	10"	7"	1'-2"
8	6	11"	8"	1'-4"
9	9	1'-3"	11"	1'-7"
10	10	1'-5"	1'-0"	1'-10"

NOTES:
 1. DIMENSIONS OMITTED ARE ZERO
 2. DIMENSIONS ARE OUT TO OUT OF BAR
 3. DEFORMED REINFORCING BARS ARE TO BE GRADE 60 STEEL (ASTM A615)

NO REQ'D	CONC. CU. YD.	FDN MARK	BAR MARK	QUN.	SIZE	NOM. LENGTH	TYPE	A	B	C	D	E	G	J	WT. BAR	TOTAL WT.		
1	32.0	S3	10	48	#8	11'-8"	STR								31.2	1,497.6		
			11	24	#8	23'-8"	STR									63.2	1,516.8	
WT. REBAR PER FDN. = 3,014.4																		
4	8.0	S5	14	24	#4	11'-8"	STR								7.8	187.2		
			15	28	#4	2'-2"	STR									1.5	42.0	
			17	28	#6	6'-8"	STR										10.0	280.0
			19	52	#4	3'-6"	17	2'-0"	1'-6"								2.4	124.8
			25	28	#4	3'-0"	STR										2.0	56.0
			26	12	#4	4'-0"	17	2'-0"	2'-0"								2.7	32.4
WT. REBAR PER FDN. = 722.4																		
TOTAL CU. YDS. CONC. = 64.0 CU. YDS. TOTAL WT. REBAR = 5,904.0 LBS.																		

LEGEND:
 ◆ ALIGNMENT MARK

REFERENCE DRAWINGS:
 FOUNDATION PLAN ES-110
 CONDUIT PLAN ES-210

- NOTES:**
- CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 4000 P.S.I. AT THE END OF 28 DAYS.
 - SOIL BEARING CAPACITY BENEATH SLAB FOOTING FOUNDATIONS SHALL BE NOT LESS THAN 2500#/SQ. FT.
 - CONCRETE PLACEMENT: NO CONSTRUCTION JOINTS PERMITTED UNLESS NOTED.
 - EDGES OF CONCRETE: ALL EXPOSED EDGES ABOVE GROUND ROUNDED OR CHAMFERED 3/4 INCH.
 - REINFORCING STEEL: ASTM A-615 GRADE 60.
 - COVER: TWO INCHES MINIMUM PROTECTIVE CONCRETE COVER OVER REINFORCING STEEL UNLESS NOTED.
 - REFER TO SUN-ES-003 CONSTRUCTION SPECIFICATION FOR DETAILED SPECIFICATION ON CONCRETE.
 - FINISH: TOP SURFACE OF OUTDOOR EQUIPMENT SLABS SHALL BE WOOD FLOATED, LIGHTLY TROWELLED AND THEN BROOMED.
 - REFER TO ES-210 FOR CONDUIT INSTALLATION. BELL ENDS TYP.
 - REFER TO GEOTECHNICAL REPORT FOR SUNFLOWER WIND PROJECT BY RRC, REVISED 10/29/14, FOR FILL AND SUB BASE PREPARATION REQUIREMENTS.

ISSUED FOR CONSTRUCTION

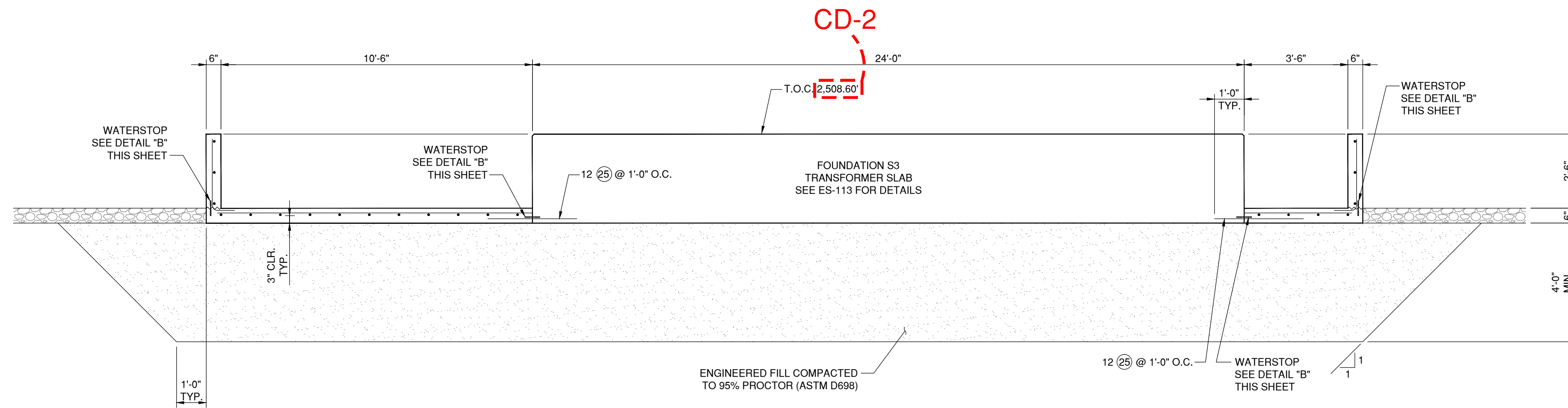


DATE: 09/25/2015
 SCALE: 3/8" = 1'-0"
 DRAWN BY: RPW
 CHECKED BY: JLG
 APPROVED BY: EMH
 PROJECT #: 15141007

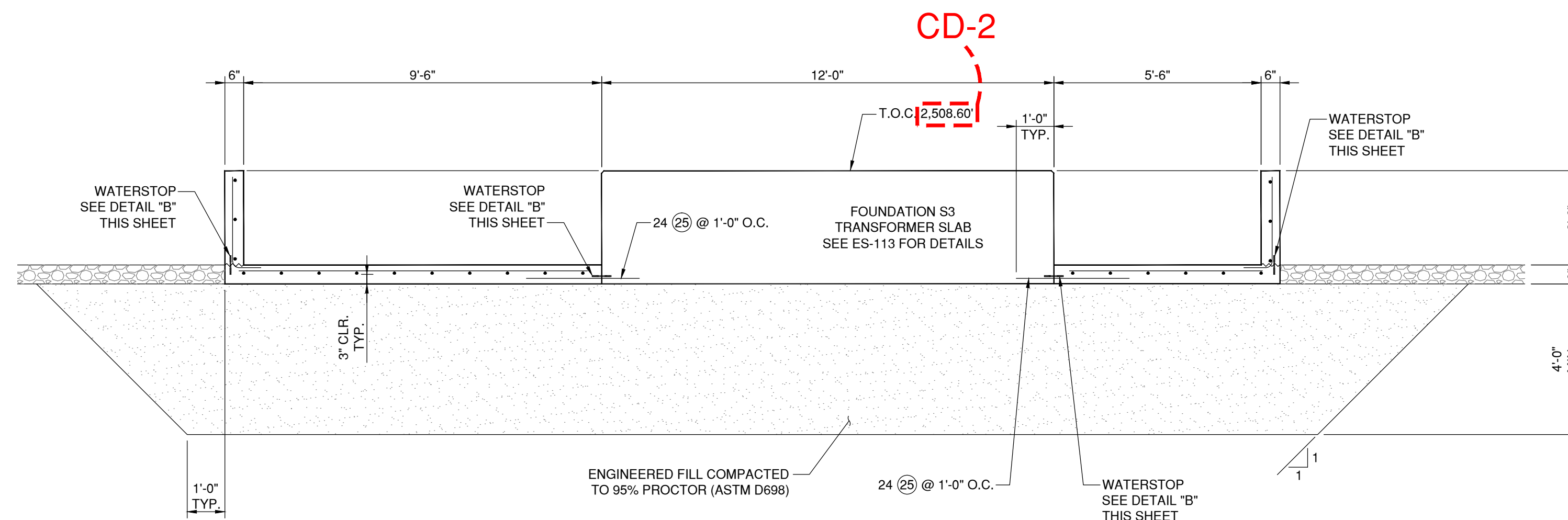
REVISIONS				
REV	DATE	DRW	CHK	DESCRIPTION
CD-009	09/25/15	RPW	JLG	FOR CONSTRUCTION
CD-110	10/30/15	RPW	JLG	FOR CONSTRUCTION
CD-211	11/15/15	JJH	EMH	FOR CONSTRUCTION

**230/34.5KV PROJECT SUBSTATION
 FOUNDATION DETAILS 3**

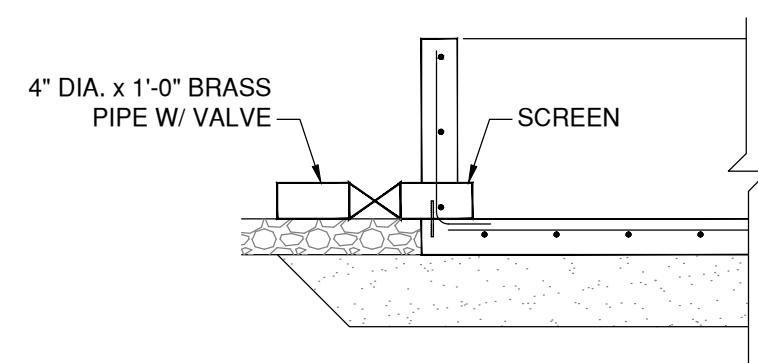
SUNFLOWER WIND
 STARK & MORTON COUNTIES, NORTH DAKOTA
 DWG NO. REV NO. CD-2
SUN-ES-113
 CONFIDENTIAL



SECTION A-A



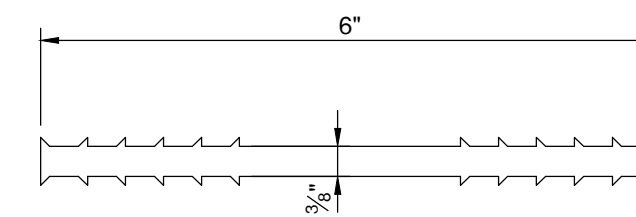
SECTION B-B



SECTION C-C

CONSTRUCTION NOTES:

- REFER TO ES-200 FOR GROUNDING REQUIREMENTS.



DETAIL "B"

3/8" x 6" GREENSTREAK PVC WATERSTOP #679 OR APPROVED

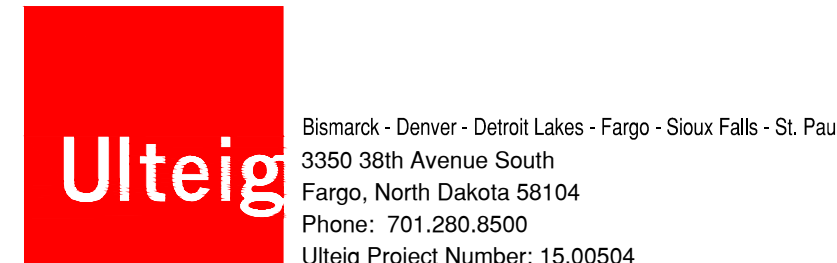
REFERENCE DRAWINGS:

FOUNDATION PLAN ES-110

NOTES:

- CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 4000 P.S.I. AT THE END OF 28 DAYS.
- SOIL BEARING CAPACITY BENEATH SLAB FOOTING FOUNDATIONS SHALL BE NOT LESS THAN 2500#/SQ. FT.
- CONCRETE PLACEMENT: NO CONSTRUCTION JOINTS PERMITTED UNLESS NOTED.
- EDGES OF CONCRETE: ALL EXPOSED EDGES ABOVE GROUND ROUNDED OR CHAMFERED 3/4 INCH.
- REINFORCING STEEL: ASTM A-615 GRADE 60.
- COVER: TWO INCHES MINIMUM PROTECTIVE CONCRETE COVER OVER REINFORCING STEEL UNLESS NOTED.
- REFER TO DETAILED SPECIFICATION ON CONCRETE.
- FINISH: TOP SURFACE OF OUTDOOR EQUIPMENT SLABS WOOD FLOATED, LIGHTLY TROWELLED AND THEN BROOMED.
- CONSTRUCTION JOINTS AND CONTROL JOINTS ARE TWO SEPARATE SPECIFICATIONS. SEE DETAIL FOR TYPICAL CONSTRUCTION JOINT. SAWCUT CONTROL JOINTS 1 1/2" DEEP AND FILL WITH CETCO AKWASWELL.
- REFER TO GEOTECHNICAL REPORT FOR SUNFLOWER WIND PROJECT BY RRC, REVISED 10/29/14, FOR FILL AND SUB BASE PREPARATION REQUIREMENTS.

ISSUED FOR CONSTRUCTION



DATE: 09/25/2015
 SCALE: 3/8" = 1'-0"
 DRAWN BY: RPW
 CHECKED BY: JLG
 APPROVED BY: EMH
 PROJECT #: 15141007

REVISIONS				
REV	DATE	DRW	CHK	DESCRIPTION
CD-009	09/25/15	RPW	JLG	FOR CONSTRUCTION
CD-110	10/30/15	RPW	JLG	FOR CONSTRUCTION
CD-211	11/11/15	JJH	EMH	FOR CONSTRUCTION

230/34.5KV PROJECT SUBSTATION
 FOUNDATION DETAILS 5

SUNFLOWER WIND
 STARK & MORTON COUNTIES, NORTH DAKOTA

DWG NO. REV NO. CD-2

SUN-ES-115
 CONFIDENTIAL