

**SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN
(SPCC)
FOR
MINNESOTA POWER'S**

**BISON 230/34.5 kV SUBSTATION
NEW SALEM, NORTH DAKOTA**

**Owned and Operated by
Minnesota Power
30 West Superior Street
Duluth, MN 55802**

Professional Engineer Certification 40 CFR 112.3(d)

CERTIFICATION: By means of this certification, I attest that I am familiar with the requirements of provisions 40 CFR Part 112, that I or my designated agent have visited and examined the facility, that this SPCC Plan has been prepared in accordance with good engineering practices, including consideration of applicable industry standards, and with the requirements of this Part, that procedures for required inspections and testing have been established and that the Plan is adequate for the facility.

Engineer:



Michael D. French, P.E.

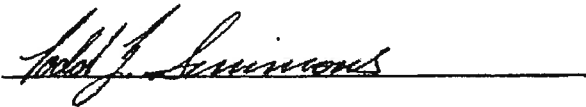
Registration No.: PE-6496

State: North Dakota

Date of Plan certification

**SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN
MANAGEMENT APPROVAL 40 CFR 112.7**

I hereby certify that the necessary resources to implement this Plan have been committed.



Todd Simmons
Operations Manager-Bison 1 Wind

25-Oct, 2011

Date

**SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN
(SPCC PLAN) FOR**

**BISON 230/34.5 kV SUBSTATION
NEW SALEM, NORTH DAKOTA**

Quick Reference Reporting Information 2 PAGES

The Minnesota Power Bison Wind Substation is located in Section 4, Township 140 North, Range 86 West, New Salem, North Dakota. The Substation is located in Morton County. The site address is 5134 30th Street, New Salem, North Dakota, 58563.

The site can be accessed from I-94 West of New Salem, taking Exit 120 (Highway86) to the North for about 8 miles, then proceeding east on 30th Street to the Substation.

Facility drawing ME-32815-12 is included as Attachment A. A copy of this SPCC Plan is maintained at the substation, and at the Bison Wind Headquarters which is located on 30th Street approximately 0.5 mile to the west of the substation. A copy of the SPCC Plan is also on file with the HVDC technicians at Center, ND.

Accountable Person:

Todd Simmons-Bison Wind is accountable for oil spill prevention at this facility.

Contact Information For Minnesota Power-Bison Wind and Substation C&M Personnel

Name	Title	Telephone
Matt Wisted	Supervisor Tech Systems	Office (218) 7225642, X 2772
		Cell/Home (218) 393-0286
Corey Axtman	HVDC Technician	Office (701) 843-6141
		Cell (701) 214-7285
Tyler Hardy	HVDC Technician	Office (701) 843-6142
		Cell (701) 214-7236
Derrick Martin	HVDC Technician	Office (701) 843-6143
		Cell (701) 934-1527
Timothy Mork	Production Supervisor	Office (701) 843-6103
	Alliate Renewable Resources	Cell/Home 701 202 9644

Quick Reference Page 2 of 2

Reporting Information Continued

Todd Simmons General Manager Office (701) 843-6102
Cell/Home (701) 426-7820

- **For Internal Environmental Incident Reporting To Minnesota Power Environmental Department:**

Normal Business Hours	(218) 722-5642, x 3200 Or (218) 355-3200
After-Hours (or 24/7) Environmental Incidents	(218) 722-5642, x 2764 Or (218) 720-2764

- **North Dakota Regulatory Agency Reporting Numbers**

ND Department of Health-Water Quality (Normal Business Hours) (701) 328-5210

Or

ND Emergency Services (or 24/7) (800) 472-2121

- **Federal National Response Center in Washington, DC** (800) 424-8802

- **Federal EPA Region 8-Denver, CO** (303) 293-1788

For additional reporting information:

Refer to Article 10.0 and 11.0 of this SPCC Plan.

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1.0 Plan Amendments

1.1 Summary of Plan Reviews and Amendments

In accordance with 40 CFR 112.5 (a) and (b), a review and evaluation of this SPCC Plan is conducted at the time of a Facility change that "materially affects the potential for a discharge" but at least once every three years prior to August 16, 2002, and at least once every 5 years after August 17, 2002. Minnesota Power recently constructed the Bison 230/34.5 kV Substation. This SPCC Plan was created as a result. Reviews, evaluations and amendments occurring after August 17, 2002 are recorded as Attachment B.

2.0 General Facility Description

2.1 Location of Facility

The Minnesota Power Bison Wind Substation (Bison Substation) is located in Section 4, Township 140 North, Range 86 West, New Salem, North Dakota. The Substation is located in Morton County. The site address is 5134 30th Street, New Salem, North Dakota, 58563.

The site can be accessed from I-94 West of New Salem, taking Exit 120 (Highway86) to the North for about 8 miles, then proceeding east on 30th Street to the Substation.

Facility drawing ME-32815-12 is included as Attachment A. A copy of this SPCC Plan is maintained at the substation and at the Bison Wind Headquarters which is located on 30th Street approximately 0.5 mile to the west of the substation..A copy is also maintained by the technicians at the HVDC facility in Center, ND.

2.2 Description of Facility

The Bison Substation contains the oil filled electrical equipment required for high voltage conversions and transfers of electrical energy between Minnesota Power's Bison Wind farm and the Minnesota Power 250kV HVDC Substation located at Center, ND..

Minnesota Power owns all of the oil-filled electrical equipment in the Bison Substation with the exception of one transformer which is owned by Basin Electric Power Cooperative.

The Bison Substation is in continuous operation and is inspected once every two weeks by Minnesota Power Communications Infrastructure personnel from the Minnesota Power HVDC Substation located near Center, ND.

2.3 Applicability of 40 CFR 112

The oil volumes present at the Bison Substation exceed the de minimus level of 1,320 gallons as established in 40 CFR 112.1 (d) 2 (ii). The largest single container has a volume of approximately 14,195 gallons. Surface precipitation from the Bison Substation could eventually feed into the headwaters of a local drainage-way located approximately 0.5 mile to the northeast. For these reasons, 40 CFR 112 is considered to be applicable to the Bison Substation.

2.4 Certification of the Applicability of the Substantial Harm Criteria Checklist

An evaluation of the Substantial Harm Criteria has been conducted and it has been determined that the Criteria is not applicable to the Bison Substation. The completed Criteria checklist is included as Attachment C.

3.0 Conformance With Applicable Requirements

3.1 Conformance with Requirements 112.7(a)(1)

The SPCC Plan for the MP Bison Substation conforms to the requirements of 40 CFR 112.

This SPCC Plan has been certified by a registered professional engineer as required by Section 112.3(d) of the regulations. This SPCC Plan has the full approval of management at a level of authority to commit the necessary resources as required by Section 112.7.

Minnesota Power will amend and review this SPCC Plan in accordance with the requirements of Section 112.5 of the regulations.

3.2 Non-Conformance with Requirements 112.7(a)(2)

Not Applicable

4.0 – Physical Layout of Facility 112.7(a)(3)

Drawing ME-32815-12 shows the Bison Substation has been included as page 3.1. The location of all oil filled equipment and the quantity and type of oil in each is shown.

5.0 – Listing of Oil-Filled Equipment 112.7(a)(3)(i)

The following electrical equipment contains oil used as an electrical insulation and cooling medium and is present at the Bison Substation:

Description/Equipment ID	No. of Units	Gallons Per Unit	Total Gallons	Oil Type	Project
1TR GE Substation Transformer 34.5/230 kV	1	14,195	14,195	Non-PCB Mineral Oil	Bison 1
2TR CG Substation Transformer 34.5/230 kV	1	10,530	10,530	Non-PCB Mineral Oil	Bison 2
3TR CG Substation Transformer 34.5/230 kV	1	10,530	10,530	Non-PCB Mineral Oil	Bison 3
34.5 kV Metering Current Transformers Kuhlman CXM-200	3	15	45	Non-PCB Mineral Oil	Bison 2
34.5 kV 167 KVA Station Service Padmount Transformer	1	110	110	Non-PCB Mineral Oil	Bison 1
230 kV CCVT-1H6 Alstom OTCF-245EM	1	21.9	21.9	Non-PCB Mineral Oil	Bison 1
230 kV CCVT-2H6 Alstom OTCF-245EM	1	21.9	21.9	Non-PCB Mineral Oil	Bison 2
230 kV CCVT-84L6 Areva OTCF-245IM	3	15.1	45.3	Non-PCB Mineral Oil	Bison 2

Description/Equipment ID	No. of Units	Gallons Per Unit	Total Gallons	Oil Type	Project
230 kV CCVT-3H6 Alstom OTCF-245EM	3	21.9	65.70	Non-PCB Mineral Oil	Bison 3
20K Capacitor Bank-GE 40 MVAR 249 kV					Bison 2/3
167 KVAR Cans	4	8	32	Non-PCB Mineral Oil	
525 KVAR Cans	90	3.91	351.9		

6.0 – Discharge Prevention Measures

112.7(a)(3)(ii)

Periodic maintenance operations require the use of portable oil-filled equipment and tanks. This equipment will be temporarily located within the confines of the substation during maintenance of oil-filled equipment. The volume of oil in these portable pieces of equipment and tanks is not expected to exceed the quantity contained by the largest permanent piece of equipment located at this facility. Maintenance personnel will be present at all times during operations which require the transfer of oil. Oil handling equipment will be properly maintained and inspected to minimize the potential for a discharge.

7.0 – Discharge or Drainage Controls

112.7(a)(3)(iii)

The following features, which minimize the possibility of oil spills reaching navigable waters, have been designed into this facility:

- Oil level sensing devices with alarms are present on the large substation transformers. The alarm function would alert response personnel and provide an opportunity to limit the amount of oil loss.
- The substation surfacing is porous and was designed to retain oil from any other unit (110 gallons or less).
- Portions of the substation surface drain to a sediment basin which is located to the south of the substation.
- The large substation transformers have dedicated containment pits with sumps.

Appropriate containment and/or yard drainage should prevent any contaminants from reaching navigable water. The risk of a reportable spill from this facility has been evaluated and the safeguards noted above have been constructed.

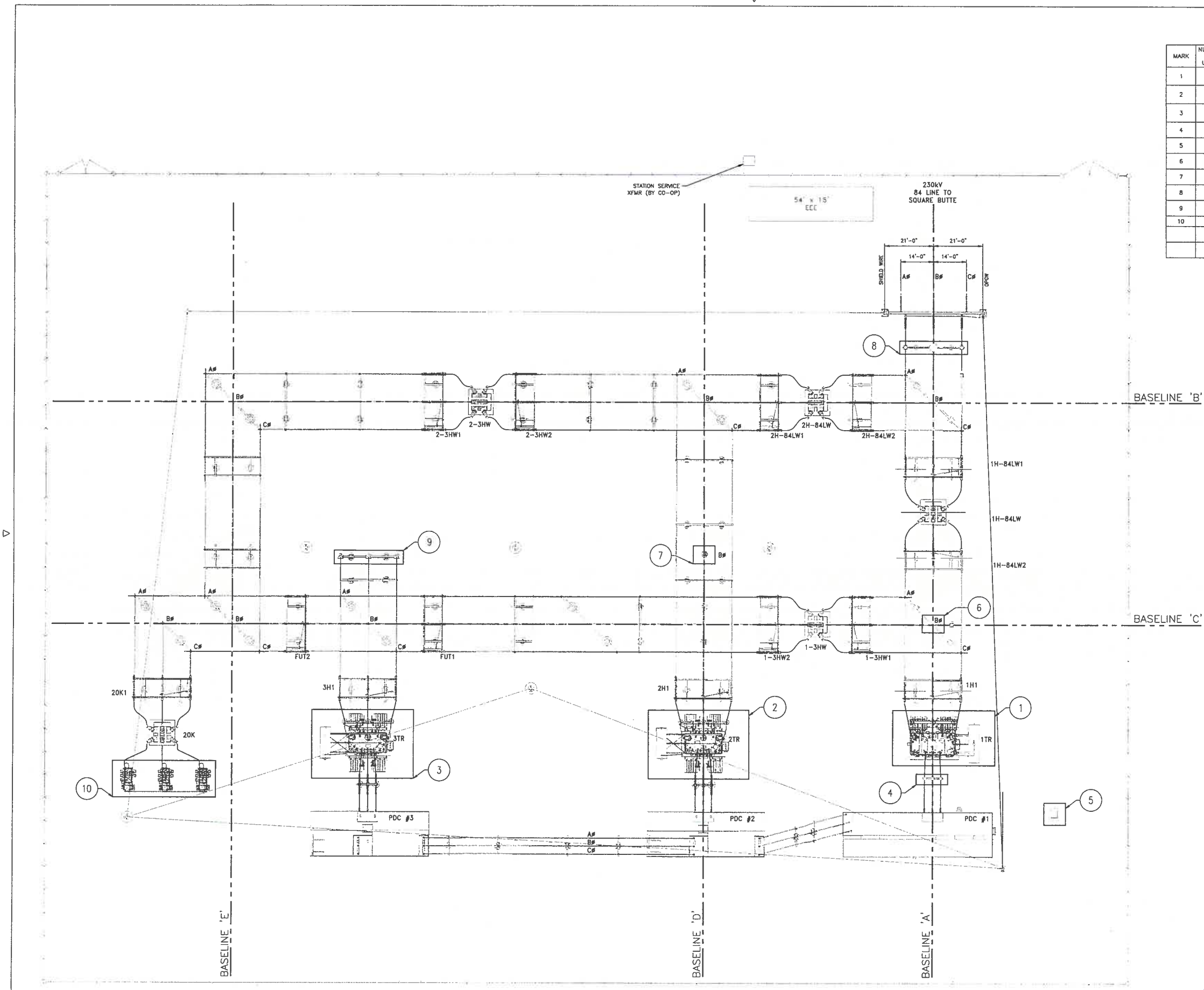
8.0 - Spill Discovery, Response & Cleanup

112.7(a)(3)(iv)

Small scale spills and leaks would normally be discovered during facility inspections which occur once every two weeks. All substation equipment including transformers and other oil-filled equipment are visually inspected as are substation containment systems. Radio and/or telephone communications are readily available for emergency use in reporting any abnormal conditions.

A catastrophic failure of oil-filled electrical equipment would normally result in a fault on the electrical transmission or distribution system. A fault on the electrical system would normally be quickly brought to the attention of the System Operators. The System Operators would immediately contact Tech Systems Substation C&M personnel to investigate the failure. If an oil spill does occur, qualified personnel will be dispatched immediately to clean up the spill, repair equipment, and eliminate further oil spillage. The responding crew is stationed at Minnesota Power's Center, ND HVDC Substation which is located about 25

MARK	NUMBER OF UNITS	DESCRIPTION	GALLONS PER UNIT	TOTAL GALLONS	OIL TYPE
1	1	1TR GE TRANSFORMER 90/120/150 MVA 34.5/230KV	14,195	14,195	NON PCB MINERAL OIL
2	1	2TR CG POWER TRANSFORMER 90/120 MVA 34.5/230KV	10,530	10,530	NON PCB MINERAL OIL
3	1	3TR CG POWER TRANSFORMER 90/120 MVA 34.5/230KV	10,530	10,530	NON PCB MINERAL OIL
4	3	34.5KV METERING CURRENT TRANSFORMER KUHLMAN CXM-200	15	45	NON PCB MINERAL OIL
5	1	34.5KV 167 KVA STATION SERVICE PADMOUNT TRANSFORMER	110	110	NON PCB MINERAL OIL
6	1	230KV CCVT-1H6 ALSTROM OTCF-245EM	21.9	21.9	NON PCB MINERAL OIL
7	1	230KV CCVT-2H6 ALSTROM OTCF-245EM	21.9	21.9	NON PCB MINERAL OIL
8	3	230KV CCVT-84L6 AREVA OTCF-245EM	15.1	45.3	NON PCB MINERAL OIL
9	3	230KV CCVT-3H6 ALSTROM OTCF-245EM	21.9	65.70	NON PCB MINERAL OIL
10		20K CAPACITOR BANK-GE 40 MVAR 249KV			
4		167 KVAR CANS	8	32	NON PCB MINERAL OIL
90		525 KVAR CANS	3.91	351.9	NON PCB MINERAL OIL



LEGEND

- ▲ OPERATOR MEDWISM
- ⊗ 85W OUTDOOR LIGHT

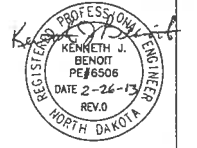
NOTES:

1. PROVIDE 1/4" WEEP HOLES IN ALUMINUM TUBE BUS FOR DRAINAGE.
2. INSTALL 336 KCMIL ACSR DAMPER WIRE IN 4" ALUMINUM BUS.
3. ALL ALUMINUM WELDED FITTINGS TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
4. INSTALL CHAMBER UP ON 4" ALUMINUM BUS.
5. ALL ALUMINUM BUS TO BE WELDED IN ACCORDANCE WITH SPECIFICATION, M.P. CONSTRUCTION STANDARD (BS10CD SHEETS 1-5 AND MANUFACTURER'S INSTRUCTIONS).

REFERENCE DRAWINGS

TITLE	DRAWING NO. SERIES
FENCE & FOUNDATION PLAN	ME-32815-05 SH.1
SPCC PLAN & DETAILS 1TR	ME-32815-12 SH.1
SPCC PLAN 2TR & 3TR	ME-32815-12 SH.2
SPCC NOTES & DETAILS 2TR & 3TR	ME-32815-12 SH.3
SPCC PLAN VIEW	ME-32815-12 SH.4

PAGE 3.1



NO.	DATE	REVISION DESCRIPTION	BY	APPROVED	NO.	DATE	REVISION DESCRIPTION	BY	APPROVED
0	2-26-13	SPCC PLAN UPDATE WO-100305	AJW	KJB					



BISON WIND GENERATING FACILITY
NEW SALEM, ND

BISON 230KV SUBSTATION
SPCC PLAN VIEW

SHEET 4 REV. 0
ME-32815-12

miles to the northeast of the Bison Substation. Oil absorbent materials would be made available by the responding Minnesota Power crew.

9.0 – Disposal of Contaminated Materials

All containers/bags of cleanup debris are labeled as to their contents, the date and the spill location to allow for proper waste tracking and management.

Any Non-PCB mineral oils recovered from damaged or leaking electrical equipment are burned for energy recovery as Used Oil. Hydraulic oils and any other lubricating oils recovered from on-site equipment would also be burned as Used Oil for energy recovery. Recovered mineral oils or other fluids which contain regulated levels of PCBs are sent off-site to permitted TSD Facilities for reclamation or disposal.

Non-PCB mineral oil contaminated soils, sod and floor-dry are collected, processed and burned in a permitted industrial boiler, or sent to a permitted industrial solid waste landfill. Soils, sod, floor-dry and any other absorbents contaminated with oils which contained regulated levels of PCBs are sent to a TSCA landfill for disposal. Combustible absorbents which are contaminated with Non-PCB mineral oils, hydraulic oils or other lubricating oils are collected and sent off-site for processing and burning for energy recovery at a permitted facility.

10.0 – Contact List and Phone Numbers 112.7(a)(3)(vi)

Contact lists for equipment repair, spill containment, cleanup and regulatory agency reporting are included in this and the following Article of this Plan.

Telephone Reporting Procedure: System Reliability and Spill Cleanup

All spills of oil must be reported immediately. The person discovering a spill should notify his or her supervisor or other levels of supervision that are immediately available. The supervisor, if available, or the individual observing the spill will then contact one of the individuals listed below who are responsible for dispatching a cleanup crew.

Contact Information For Minnesota Power-Bison Wind and Substation C&M Personnel

Name	Title	Telephone
Matt Wisted	Supervisor Tech Systems	Office (218) 7225642, X 2772 Cell/Home (218) 393-0286
Corey Axtman	HVDC Technician	Office (701) 843-6141 Cell (701) 214-7285
Tyler Hardy	HVDC Technician	Office (701) 843-6142

		Cell (701) 214-7236
Derrick Martin	HVDC Technician	Office (701) 843-6143
		Cell (701) 934-1527
Timothy Mork	Production Supervisor	Office (701) 843-6103
	Allele Renewable Resources	Cell/Home 701 202 9644
Todd Simmons	General Manager	Office (701) 843-6102
		Cell/Home (701) 426-7820

- **For Internal Environmental Incident Reporting To Minnesota Power Environmental Department:**

Normal Business Hours

(218) 722-5642, x 3200
Or (218) 355-3200

After-Hours (or 24/7) Environmental Incidents

(218) 722-5642, x 2764
Or (218) 720-2764

- **North Dakota Regulatory Agency Reporting Numbers**

ND Department of Health-Water Quality (Normal Business Hours)

(701) 328-5210

Or

ND Emergency Services (or 24/7)

(800) 472-2121

- **Federal National Response Center in Washington, DC**

(800) 424-8802

- **Federal EPA Region 8-Denver, CO**

(303) 293-1788

- **North Dakota Regulatory Agency Reporting Numbers**

ND Department of Health-Water Quality (Normal Business Hours)

(701) 328-5210

Or

ND Emergency Services (or 24/7)

(800) 472-2121

- Federal National Response Center in Washington, DC (800) 424-8802
- Federal EPA Region 8-Denver, CO (303) 293-1788

11.0 – Reporting Information: Environmental 112.7(a)(4)

The supervisor, if available or the individual observing the spill will then contact personnel listed in Article 10.0 above to ensure that the appropriate environmental agency reporting occurs.

The person reporting the spill should be prepared to provide the following information:

- The name and address of the facility (reference page ii).
- The date and time of the spill.
- The source and cause of the spill; what was spilled and how much was spilled.
- Whether any surface waters were impacted by the spill. What media was affected by the spill?
- Note any other damages or injuries caused by the spill.
- Spill containment/cleanup actions taken.
- Whether any evacuations will be required because of the spill and the names and organizations of those others notified of the spill.

The regulatory agency contact numbers are listed above in Article 10.0.

12.0 – Spill Response Procedures 112.7(a)(5)

Spill response procedures have been discussed above in Articles 8, 9, 10 and 11.

13.0 – Predicted Direction, Rate of Flow, & Quantity of Potential Spills 112.7(b)

The number of variables in location of equipment, degree of failure, and the response of personnel make predicting the quantity of a potential spill difficult.

Failures resulting in oil losses could occur in any of the equipment listed in Section 5.0. Structural damage of oil filled electrical equipment is usually confined to the bushings, mechanical relief devices, access holes and the side wall/cover interface. Since the physical location of these elements is near the top of the equipment, oil normally remains inside the equipment. In the event a pressure relief valve operates, approximately 10 gallons of oil could be released. Under extreme conditions, up to 50 gallons could be released. Discharge of oil from this facility as a result of such a failure is unlikely and the potential for equipment failures resulting in an oil spill reaching navigable waters is remote.

In the event of a catastrophic failure of electrical equipment, the secondary containment mechanisms of Article 7 would be effective.

14.0 – Containment Structures or Equipment 112.7(c)

See Article 7.0 of this SPCC Plan.

15.0 – Impractical Containment Situations 112.7(d)

All containment measures discussed in Article 7.0 have been constructed.

16.0 – Inspections, Tests, & Records

112.7(e)

16.1 Inspections

The electrical equipment at this facility is inspected once every two weeks by operating personnel for signs of deterioration, leaks, or accumulation of oil on the ground. Personnel conducting inspection of this facility should make notifications as per Article 10.0 if abnormal conditions are observed.

Personnel conducting inspections of these facilities shall, after finding everything in order, sign the Oil Spill Inspection Log certifying that no evidence of an oil spill has been observed. These Oil Spill Inspection Logs shall remain at the site for a period of at least five years, preferably indefinitely. For a sample inspection log, see Attachment D to this document.

16.2 Spill Report

The sample Spill Report found in Attachment E has been adopted by Minnesota Power for use in documenting oil spill incidents. It is intended to provide information required for record-keeping purposes as well as future planning of oil containment facilities.

17.0 – Personnel, Training, and Discharge Prevention Procedures

112.7(f)

17.1 Training Contents

112.7(f)(1)

Maintenance crews are trained in the proper operation and maintenance of oil filled electrical equipment and oil handling equipment to reduce the potential for discharge. Maintenance crews are trained in discharge procedure protocols, applicable pollution control laws, rules and regulations, general facility operations, and the contents of this SPCC Plan. Maintenance crews are also trained in the use of oil containment equipment and absorbent materials to contain and clean up discharged oil.

17.2 Accountable Person

112.7(f)(2)

Todd Simmons, General Manager Bison Wind, is accountable for oil spill prevention at this facility.

17.3 Training Frequency

112.7(f)(3)

Exercises and briefings reviewing oil spill response procedures including material availability, equipment operation, etc., will be conducted on an annual basis for personnel responsible for inspection and oil spill cleanup.

18.0 – Security

112.7(g)

18.1 Facility Fencing

112.7(g)(1)

The Bison Substation is fully fenced and the entrance gate is locked when the facility is not staffed.

18.2 Drain Valves

112.7(g)(2)

Drain valves for energized electrical equipment are equipped with blank flanges, caps, or plugs.

18.3 Oil Pumps

112.7(g)(3)

Each of the three large substation transformers are surrounded by a containment pit which contains a sump. The sump is equipped with an electric pump which is manually started to remove precipitation following an inspection to confirm that the precipitation is not contaminated with oil.

- 18.4 Loading/Unloading Connections** **112.7(g)(4)**
See Article 19.0.
- 18.5 Facility Lighting** **112.7(g)(5)**
Lighting is adequate to observe spills during darkness and to discourage vandalism.
- 19.0– Facility Tank Car & Tank Truck Unloading** **112.7(h)**
The facility does not contain Tank Car and Tank Truck Unloading equipment. The use of tank trucks for loading and unloading of oil from electrical equipment is described in Section 6.0 of this SPCC Plan.
- 20.0 – Field Constructed Aboveground Container** **112.7(i)**
This facility does not utilize field-constructed containers.
- 21.0 – Other Applicable State Rules, Regulations, and Guidelines** **112.7(j)**
Regulations of the North Dakota Dept. of Health and federal EPA will be complied with. Efforts to avoid spills of petroleum must be undertaken and preparations must be made to respond to potential spill scenarios. Spill response includes scene safety, oil containment, spill reporting, spill clean-up and waste management.
- 22.0 – Conformance With 40 CFR 112.7 and 112.8** **112.8(a)**
The facility design and operation conforms to the requirements given the containments discussed in Article 7.0.
- 23.0 – Facility Drainage** **112.8(b)**
- 23.1 Draining Diked Area With Pumps, Ejectors** **112.8(b)(1)**
 See Article 18.3.
- 23.2 Draining Diked Areas With Valves** **112.8(b)(2)**
 Not Applicable.
- 23.3 Containment For Undiked Areas** **112.8(b)(3)**
 As discussed in Article 7.0.
- 23.4 Diversion Systems For Undiked Areas** **112.8(b)(4)**
 As discussed in Article 7.0.
- 23.5 Drainage Treatment Units** **112.8(b)(5)**
 This site has been engineered to prevent oil from reaching navigable waters. There are no drainage treatment units at the facility.
- 24.0 – Bulk Storage Containers** **112.8(c)**
This facility has no bulk storage containers.
- 25.0 – Facility Transfer Operations** **112.8(d)**
Periodic maintenance operations require the use of portable oil-filled equipment and tanks. This equipment will be temporarily located within the confines of the substation during maintenance of oil-filled equipment. The volume of oil in these portable pieces of equipment and tanks is not expected to exceed the quantity

contained by the largest permanent piece of equipment located at this facility. Maintenance personnel will be present at all times during operations which require the transfer of oil.

25.1 Piping Corrosion Protection **112.8(d)(1)**

There is no buried oil piping at this site.

25.2 Capping & Marking Terminal Connections **112.8(d)(2)**

Drain connections on electrical equipment are capped and valves are closed.

25.3 Pipe Support Design **112.8(d)(3)**

Not applicable

25.4 Inspections and Testing **112.8(d)(4)**

Not applicable

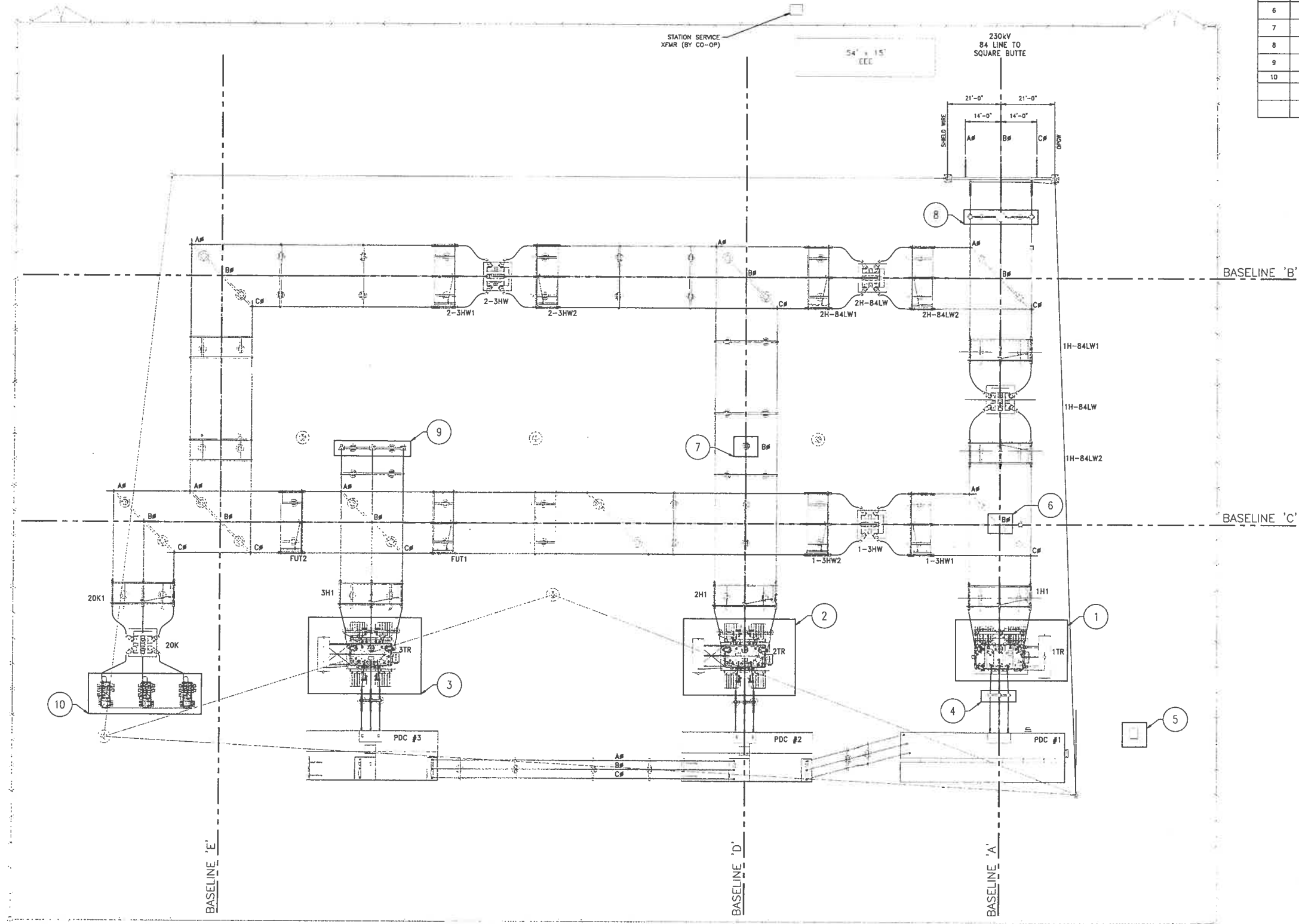
25.5 Traffic Notification **112.8(d)(5)**

There is no overhead piping

ATTACHMENT A

DRAWING ME-32815-12

MARK	NUMBER OF UNITS	DESCRIPTION	GALLONS PER UNIT	TOTAL GALLONS	OIL TYPE
1	1	1TR GE TRANSFORMER 90/120/150 MVA 34.5/230KV	14,195	14,195	NON PCB MINERAL OIL
2	1	2TR CG POWER TRANSFORMER 90/120 MVA 34.5/230KV	10,530	10,530	NON PCB MINERAL OIL
3	1	3TR CG POWER TRANSFORMER 90/120 MVA 34.5/230KV	10,530	10,530	NON PCB MINERAL OIL
4	3	34.5KV METERING CURRENT TRANSFORMER KUHLMAN CXM-200	15	45	NON PCB MINERAL OIL
5	1	34.5KV 167 KVA STATION SERVICE PADMOUNT TRANSFORMER	110	110	NON PCB MINERAL OIL
6	1	230KV CCVT-1H6 ALSTROM OTCF-245EM	21.9	21.9	NON PCB MINERAL OIL
7	1	230KV CCVT-2H6 ALSTROM OTCF-245EM	21.9	21.9	NON PCB MINERAL OIL
8	3	230KV CCVT-4L6 AREVA OTCF-245EM	15.1	45.3	NON PCB MINERAL OIL
9	3	230KV CCVT-3H6 ALSTROM OTCF-245EM	21.9	65.70	NON PCB MINERAL OIL
10		20K CAPACITOR BANK-GE 40 MVAR 249KV			
	4	167 KVAR CANS	8	32	NON PCB MINERAL OIL
	90	525 KVAR CANS	3.91	351.9	NON PCB MINERAL OIL



LEGEND

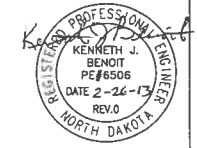
- ▲ OPERATOR MECHANISM
- ☒ 85W OUTDOOR LIGHT

NOTES:

1. PROVIDE 1/4" WEEP HOLES IN ALUMINUM TUBE BUS FOR DRAINAGE.
2. INSTALL 336 KVDEL ACSR DAMPER WIRE IN 4" ALUMINUM BUS.
3. ALL ALUMINUM WELDED FITTINGS TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
4. INSTALL CAMBER UP ON 4" ALUMINUM BUS.
5. ALL ALUMINUM BUS TO BE WELDED IN ACCORDANCE WITH SPECIFICATION, M.P. CONSTRUCTION STANDARD BS01CD SHEETS 1-5 AND MANUFACTURER'S INSTRUCTIONS.

REFERENCE DRAWINGS

TITLE	DRAWING NO. SERIES
FENCE & FOUNDATION PLAN	ME-32815-05 SH.1
SPOC PLAN & DETAILS 1TR	ME-32815-12 SH.1
SPOC PLAN 2TR & 3TR	ME-32815-12 SH.2
SPOC NOTES & DETAILS 2TR & 3TR	ME-32815-12 SH.3
SPOC PLAN VIEW	ME-32815-12 SH.4



NO.	DATE	REVISION DESCRIPTION	BY	APPROVED	NO.	DATE	REVISION DESCRIPTION	BY	APPROVED
0	2-26-13	SPOC PLAN UPDATE WO-100305	AW	[Signature]					



BISON WIND GENERATING FACILITY
NEW SALEM, ND

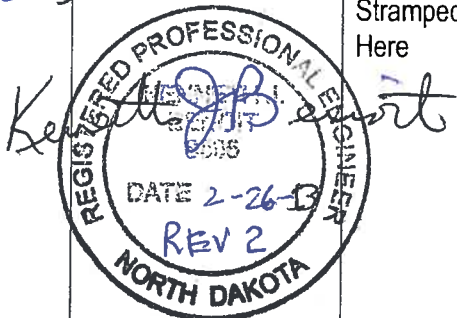
BISON 230KV SUBSTATION
SPOC PLAN VIEW

SHEET 4 REV. 0
ME-32815-12

ATTACHMENT B

SPCC AMENDMENTS SUMMARY AND DETAILS

Bison Substation

	<u>Reviewer(signature)</u>	<u>Reviewer(print)</u>	<u>Date</u>	<u>Will The SPCC Plan Be Amended?</u>	<u>P.E. Stamp Required?</u>
1	See Cover	Michael D. French	See Cover	Plan Created New As Of Plan Cover Date	See Cover
2	<i>Kenneth J. Benoit</i>	Kenneth J. Benoit 6506-North Dakota	<i>2-26-13</i>	Yes, As Herein 	Yes As Stramped Here
3					
4					
5					
6					
7					

8					
9					
10					

BISON SUBSTATION

SPCC Amendment Detail Log

<u>Item Number</u>	<u>Item Description</u>
1	<p>The Bison Substation was constructed to collect and transfer electrical energy from the Bison 1 wind turbines and forward that electrical energy to Minnesota on the DC transmission line system.</p> <p>This SPCC Plan was newly created for the recently constructed Bison Substation.</p>
2	<p>Additional substation equipment was added with designed secondary containment for Bison 2 and 3. By signing this SPCC Plan, Kenneth J. Benoit certifies that said equipment and secondary containment as described in Article 7.0 are adequate and are as stated.</p>

ATTACHMENT C

**CERTIFICATION OF THE APPLICABILITY
OF THE SUBSTANTIAL HARM CRITERIA CHECKLIST**

FACILITY NAME: Bison Substation, New Salem, North Dakota..

FACILITY ADDRESS: . The site address is 5198 30th Street, New Salem, North Dakota, 58563.

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

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

3. Does the facility have a total storage capacity greater than or equal to one million gallons and is the facility located at a distance (as calculated using the formula in Attachment C-III, Appendix C, 40 CFR 112 or a comparable formula¹) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? For further description of fish and wildlife and sensitive environments, see Appendices I, II and III to DOC/NOAA's "Guidance for Facility and Vessel Response Environments" (Section 10, Appendix E, 40 CFR 112 for availability) and the applicable Area Contingency Plan.
Yes _____ No X

4. Does the facility have a total storage capacity greater than or equal to one million gallons and is the facility located at a distance (as calculated using the formula in Attachment C-III, Appendix C, 40 CFR 112 or a comparable formula¹) such that a discharge from the facility would shut down a public drinking water intake?
Yes _____ No X

5. Does the facility have a total storage capacity greater than or equal to one million gallons and has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years?
Yes _____ No X

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.

Name Michael D. French



Signature

Title Consulting Civil Engineer-PE

Oct 25, 2011

Date

¹ If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

² For the purposes of CFR Part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2 (c). (from 40 CFR 112 Appendix C, Attachment C-II).

ATTACHMENT D

Facility Weekly Inspection Log

ATTACHMENT F
Reference Plan Article 10.0

ATTACHMENT G

Records of Draining Containment Areas
Incorporated with the inspection Logs in Attachment D

ATTACHMENT H

Inspections & Testing of Bulk Storage Containers
Not Applicable To The Bison Substation

ATTACHMENT I

High Level Alarm Test Records For Bulk Storage Containers
Not Applicable to the Bison Substation

ATTACHMENT J

Integrity Testing For Buried Piping For Bulk Storage Containers
Not Applicable To The Bison Substation