

TECHNICAL SUPPORT DOCUMENT
For
DRAFT AIR EMISSION PERMIT NO. 11100058-004

This technical support document (TSD) is intended for all parties interested in the draft permit and to meet the requirements that have been set forth by the federal and state regulations (40 CFR § 70.7(a)(5) and Minn. R. 7007.0850, subp. 1). The purpose of this document is to provide the legal and factual justification for each applicable requirement or policy decision considered in the preliminary determination to issue the draft permit.

1. General Information

1.1 Applicant and Stationary Source Location:

Table 1. Applicant and Source Address

Applicant/Address	Stationary Source/Address (SIC Code: 4911)
Owner: Otter Tail Power Company 215 South Cascade Street, PO Box 496 Fergus Falls Otter Tail County	Fergus Control Centers 202 S Cascade St and 224 E Washington Ave Fergus Falls Otter Tail County
Contact: Paul Vukonich Phone: (218) 739-8349	

1.2 Facility Description

Fergus Control Centers (Facility) is a systems operation control center. The facility comprises two locations, the existing control center and the planned backup control center. Activities conducted at the facility include managing load distribution. The facility operates emergency generators as required by the Federal Energy Regulatory Commission (FERC).

1.3 Description of any Changes Allowed with this Permit Issuance

The purpose of this permit action is to issue a State Operating Permit for Fergus Control Centers and to authorize construction of a 40 kW natural gas engine intended for emergency use. The previous permit held by the facility was an Option C Registration Permit. The facility with the new emergency engine is ineligible for an Option C permit, because the engine is subject to NSPS Subpart JJJJ, which is not allowed under the Registration Permit rules at the time of permit issuance. This permit also incorporates the existing diesel engine at the existing control center as part of the single stationary source.

1.4 Description of All Amendments Issued Since the Issuance of the Last Total Facility Permit

Table 2. Past Permit Amendments and Authorized Actions

Permit Number and Issuance Date	Action Authorized
Option C Registration Permit 11100058-001 Issued: 3/1/1995	This permit action authorized the initial construction and operation of the facility. It was later voided as the Minnesota Pollution Control Agency (MPCA) determined that the facility no longer required an air emissions permit.
Option C Registration Permit 11100058-002 Withdrawn: 2/26/1996	This permit action application was withdrawn.
Option C Registration Permit 11100058-003 Issued: 5/24/2001	The MPCA reconsidered the decision to void the air emissions permit and determined that the Facility should hold an air emissions permit. The Facility applied for and obtained an Option C Registration Permit.
State Operating Permit 11100058-004 To be issued	The purpose of this permit action is to issue a State Operating Permit for the Fergus Control Centers and to authorize construction of a 40 kW natural gas engine intended for emergency use. This permit also incorporates the existing diesel engine at the existing control center as part of the single stationary source.

1.5 Facility Emissions:

Table 3. Title I Emissions Increase Summary (40kW Emergency Natural Gas Generator)

Pollutant	Unlimited Potential Emissions from the Modification (tpy)	Limited Potential Emissions from the Modification (tpy)	NSR/112(g) Threshold for New Major Source (tpy)	NSR/ 112(g) Review Required? (Yes/No)
PM	0.055	0.0032	250	No
PM ₁₀	0.027	0.0015	250	No
PM _{2.5}	0.027	0.0015	250	No
NO _x	6.29	0.36	250	No
SO ₂	0.0017	0.000096	250	No
CO	10.59	0.61	250	No
Ozone (VOC)	0.084	0.0048	250	No
Lead	-	-	250	No
CO ₂ e*	326.92	18.66	100,000	No
Largest Single HAP (Formaldehyde)	0.058	0.0033	10	No
All HAPs	0.092	0.0053	25	No

*Carbon dioxide equivalents as defined in Minn. R. 7007.0100.

Table 4. Non-Title I Emissions Increase Summary (40kW Emergency Natural Gas Generator)

Pollutant	After Change (lb/hr)	Before Change (lb/hr)	Net Change (lb/hr)	Insignificant Modification Thresholds (lb/hr <)	Minor and Moderate Amendment Thresholds (lb/hr < or ≥)	Type of Amendment (Minor or Moderate)
PM ₁₀	0.006	0.00	0.006	0.855	3.42	N/A
NO _x	1.44	0.00	1.44	2.28	9.13	N/A
SO ₂	0.0004	0.00	0.0004	2.28	9.13	N/A
CO	2.42	0.00	2.42	5.70	22.80	N/A
VOC	0.019	0.00	0.019	2.28	9.13	N/A
Lead	-	-	-	0.025	0.11	N/A

Table 5. Total Facility Potential to Emit Summary

	PM tpy	PM₁₀ tpy	PM_{2.5} tpy	SO₂ tpy	NO_x tpy	CO tpy	CO₂e tpy	VOC tpy	Single HAP tpy	All HAPs tpy
Total Facility Limited Potential Emissions	0.43	0.25	0.24	0.22	14.11	4.26	721.82	0.36	0.0037	0.01
Total Facility Actual Emissions (2010)	0.04	0.04	**	0.03	0.50	0.11	*	0.04	*	

* Not reported in MN emission inventory.

** Not available in most recent emissions inventory.

Table 6. Facility Classification

Classification	Major/Affected Source	Synthetic Minor/Area	Minor/Area
PSD			PM, PM ₁₀ , PM _{2.5} , SO ₂ , NO _x , CO, VOC, O ₃ , Pb, CO ₂ e
Part 70 Permit Program		NO _x	PM, PM ₁₀ , PM _{2.5} , SO ₂ , CO, VOC, O ₃ , Pb, CO ₂ e
Part 63 NESHAP			HAPs

2. Regulatory and/or Statutory Basis

New Source Review (NSR)

The facility is a non-major source under New Source Review regulations.

Part 70 Permit Program

The facility has accepted limits on hours of operation such that it is a non-major source under the Part 70 permit program.

New Source Performance Standards (NSPS)

The 40kW natural gas emergency engine (EU 001) is subject to 40 CFR pt. 60, subp. JJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. EU 001 is a new, spark ignition reciprocating internal combustion engine (SI RICE) that meets the definition of an emergency stationary RICE in 40 CFR § 60.4248.

The 1825kW diesel emergency engine (EU 002) is not subject to 40 CFR pt. 60, subp. IIII, Standards of Performance for Stationary Compression Ignition Internal combustion Engines because it was constructed prior to July 11, 2005 (i.e. January 1995).

National Emission Standards for Hazardous Air Pollutants (NESHAP)

The facility has HAPs emissions below the major source thresholds and therefore is a non-major source under 40 CFR pt. 63. Thus no major source NESHAPs apply. The facility has certified that the only area source standard that applies is 40 CFR pt. 63, subp. ZZZZ, NESHAP: Stationary Reciprocating Internal Combustion Engines, for both EU 001 and EU 002.

EU 001 is a new, SI RICE that must meet the requirements of 40 CFR pt. 60, subp. JJJJ to comply with 40 CFR pt. 63, subp. ZZZZ.

EU 002 is an existing, compression ignition reciprocating internal combustion engine (CI RICE) that meets the definition of an emergency stationary RICE in 40 CFR § 63.6675.

Environmental Review & AERA

The facility is not subject to environmental review, i.e. an Environmental Assessment Worksheet (EAW), and is not required to perform an Air Emissions Risk Analysis (AERA).

Minnesota State Rules

Portions of the facility are subject to the following Minnesota Standards of Performance:

- Minn. R. 7011.2300 Standards of Performance for Stationary Internal Combustion Engines
- Minn. R. 7011.8150 Stationary Reciprocating Internal Combustion Engines

Table 7. Regulatory Overview of Facility

Level*	Applicable Regulations	Comments:
EU 001 (Emergency backup natural gas engine)	Minn. R. 7011.2300, subps. 1 and 2 Minn. R. 7007.0800, subp. 35a 40 CFR pt. 60, subp. JJJJ 40 CFR pt. 63, subp. ZZZZ	Standards of Performance for Stationary Internal Combustion Engines. Limits on Opacity and Sulfur Dioxide. Fuel Usage: Natural gas only. Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. This engine is a new emergency stationary SI RICE. Compliance date for this standard is upon startup.
EU 002 (Emergency diesel engine)	Minn. R. 7011.2300, subps. 1 and 2 Minn. R. 7007.0800, subp. 35a Minn. R. 7007.0800, subp. 2 Title I limit to avoid Part 70 permitting thresholds. 40 CFR pt. 63, subp. ZZZZ	Standards of Performance for Stationary Internal Combustion Engines. Limits on Opacity and Sulfur Dioxide. Fuel Usage: Diesel fuel oil only. Sulfur content of fuel limited to 0.5 percent by weight. Limit set on operating hours to avoid major source classification under 40 CFR § 70.2 and Minn. R. 7007.0200. National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. This engine is an existing stationary CI RICE. Compliance date for this standard is May 3, 2013.

*Where the requirement appears in the permit (EU = emission unit, SV = stack/vent, GP = group, TF = total facility, CE = control equipment).

3. Technical Information

Total Facility

Process

Fergus Control Centers (Facility) is a systems operation control center. The facility comprises two locations, the existing control center and the planned backup control center. Activities conducted at the facility include managing load distribution. The facility operates emergency generators as required by the Federal Energy Regulatory Commission (FERC).

Greenhouse Gases

As of January 2, 2011, the U.S. EPA began regulating Greenhouse Gases (GHGs) in terms of carbon dioxide equivalents, or CO₂e. As implied by the name, the pollutant Greenhouse Gases is not a single chemical, but a combination of many chemicals. Some chemicals have a larger effect on the environment than others; to reflect this, each of these chemicals has been assigned a certain weighting factor called a global warming potential (GWP). These global warming potentials are defined by the U.S. EPA at 40 CFR pt. 98, Appendix A, Table 1. A source's emissions of GHGs are quantified in two steps: first, the potential emissions of each of the chemicals in 40 CFR pt. 98, Appendix A, Table 1 are determined on a mass basis (the traditional method of calculating potential to emit); second, the result of each calculation in step 1 is multiplied by the pollutant's GWP and the products are summed to arrive at a single numeric value in the units of CO₂e. In order to be considered a major source of GHGs under the Title V operating permit program, a source must have a potential to emit exceeding 100,000 tons per year of CO₂e. If a source's emissions of CO₂e do not exceed this value, then, as of the date of this permit, there are no additional GHG-related permitting requirements beyond this calculation. As demonstrated by the attached calculations, the potential to emit of GHGs from this Facility is less than 100,000 tons per year of CO₂e.

EU 001: Emergency backup natural gas engine

This emission unit is a 40kW SI RICE. This engine is used to provide emergency power, by combusting natural gas, to the Fergus Control Center located at 202 South Cascade Street. Hours of operation are limited for this unit to less than or equal to 500 hours/year to maintain that it qualifies as an emergency generator under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators", dated September 6, 1995, included as Attachment 5.

NESHAP Subpart ZZZZ

This emission unit is a new affected source as defined under 40 CFR pt. 63, subp. ZZZZ, and the facility is an area source as defined at 40 CFR § 63.2. This emission unit complies with the requirements of 40 CFR pt. 63, subp. ZZZZ by meeting the requirements of 40 CFR pt. 60, subp. JJJJ. No further requirements of 40 CFR pt. 63, subp. ZZZZ apply to EU 001.

NSPS Subpart JJJJ

This emission unit is an affected source under 40 CFR pt. 60, subp. JJJJ. The Permittee must maintain emissions standards of Nitrogen Oxides + Hydrocarbons less than or equal to 10 grams/horsepower-hour and Carbon Monoxide less than or equal to 387 grams/horsepower-hour. However, performance testing is not required for these emissions standards as long as the Permittee meets the requirements of 40 CFR § 60.4243(a)(1).

EU 002: Emergency diesel engine

This emission unit is an 1825kW CI RICE. This engine is used to provide emergency power to the Fergus Control Center located at 224 East Washington Avenue. Hours of operation are limited for this unit to less than or equal to 500 hours/year such that it is a non-major source under the Part 70 permit program.

NESHAP Subpart ZZZZ

This emission unit is an existing affected source as defined under 40 CFR pt. 63, subp. ZZZZ, and the facility is an area source as defined at 40 CFR § 63.2. This emission unit meets the definition of an emergency stationary RICE in 40 CFR § 63.6675. This unit does not qualify as an emergency generator under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators", dated September 6, 1995, because it operates as part of a demand response program.

3.1 Calculations of Potential to Emit and Emissions Increase Analysis

Attachment 1 to this TSD contains detailed spreadsheets, which summarizes the PTE of the Facility, and supporting information prepared by the MPCA and the Permittee. Attachment 1 also contains emissions increase calculations for EU 001 (emergency backup natural gas engine).

Emission increases included in this permit action are the result of the installation of a 40kW natural gas SI RICE intended for emergency use (EU 001). As shown in Table 3, the increases in emissions are all less than the thresholds for triggering NSR. Additionally, the trigger for this permit action was that EU 001 was subject to 40 CFR pt. 60, subp. JJJJ, which makes the facility ineligible for an Option C Registration Permit. As shown in Table 4, the installation of EU 001 would qualify as an insignificant modification based only on potential emissions.

Combustion Engine Emissions

The combustion potential emissions are calculated based on equipment capacity, allowable fuels, and published emissions factors (AP-42).

3.2 Periodic Monitoring

In accordance with the Clean Air Act, it is the responsibility of the owner or operator of a facility to have sufficient knowledge of the facility to certify that the facility is in compliance with all applicable requirements. In evaluating the monitoring included in the permit, the MPCA considered the following:

- The likelihood of the facility violating the applicable requirements;
- Whether add-on controls are necessary to meet the emission limits;
- The variability of emissions over time;
- The type of monitoring, process, maintenance, or control equipment data already available for the emission unit;
- The technical and economic feasibility of possible periodic monitoring methods; and
- The kind of monitoring found on similar units elsewhere.

Table 8 summarizes the periodic monitoring requirements for those emission units for which the monitoring required by the applicable requirement is nonexistent or inadequate.

Table 8. Periodic Monitoring

Level*	Requirement (basis)	Additional Monitoring	Discussion
EU 001 (Emergency backup natural gas engine)	40 CFR pt. 60, subp. JJJJ	None	The Permittee shall comply with 40 CFR pt. 60, subp. JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines for EU 001.
	40 CFR pt. 63, subp. ZZZZ	None	The Permittee shall comply with 40 CFR pt. 63, subp. ZZZZ - NESHAP: Stationary Reciprocating Internal Combustion Engines for EU 001.
	NO _x + NMHC ≤ 10 grams/hp-hr CO ≤ 387 grams/hp-hr (NSPS Limits)	None	Monitoring from the NSPS is assumed to be adequate. Additionally, no performance testing is required by the NSPS as long as the Permittee meets the requirements of 40 CFR § 60.4243(a)(1).
	Fuel limited to natural gas (Minn. R. 7007.0800, subp. 35a)	Recordkeeping: Monthly fuel usage records	Fuel usage records are adequate for periodic monitoring
	Opacity ≤ 20% SO ₂ < 0.5 lb/MMBtu (Minn. R. 7011.2300)	See fuel limit above for monitoring for SO ₂	This unit uses natural gas; therefore, the likelihood of violating either of the applicable limits is very small. The Permittee can demonstrate that these units will continue to operate such that emissions are well below the emission limits by only burning natural gas. Since this is a permit condition, the semi-annual deviations report will document any deviations from this condition. Design based PTE for this unit, using AP-42, is 0.0006 compared to the rule limit of 0.5 lb/MMBtu.
	Operating Hours ≤ 500 hours/year (Minn. R. 7007.0800, subps. 2, 4, and 5)	Recordkeeping: Monthly records of operating hours, monthly calculations of 12-month rolling sums of operating hours, non-resettable hour meter	The monitoring and use of a non-resettable hour meter is adequate to have a reasonable assurance of compliance.

Level*	Requirement (basis)	Additional Monitoring	Discussion
EU 002 (Emergency diesel Engine)	40 CFR pt. 63, subp. ZZZZ	None.	The Permittee shall comply with 40 CFR pt. 63, subp. ZZZZ - NESHAP: Stationary Reciprocating Internal Combustion Engines for EU 001.
	Fuel limited to diesel fuel oil with sulfur content of $\leq 0.5\%$ by weight (Minn. R. 7007.0800, subp. 2)	Recordkeeping: Monthly fuel usage records, fuel purchase records and certification.	Fuel purchase, certification, and usage records are adequate for periodic monitoring.
	Opacity $\leq 20\%$ $SO_2 < 0.5$ lb/MMBtu (Minn. R. 7011.2300)	See fuel limit above for monitoring for SO_2	This unit uses diesel fuel; with fuel certification records, the likelihood of violating either of the applicable limits is very small. The Permittee can demonstrate that these units will continue to operate such that emissions are well below the emission limits by only burning diesel fuel oil with sulfur content $\leq 0.5\%$ by weight. Since this is a permit condition, the semi-annual deviations report will document any deviations from this condition. Design based PTE for this unit, using AP-42, is 0.051 compared to the rule limit of 0.5 lb/MMBtu.
	Operating Hours \leq 500 hours/year (Limit to avoid Part 70 + Minn. R. 7007.0800, subps. 2, 4, and 5)	Recordkeeping: Monthly records of operating hours, monthly calculations of 12-month rolling sums of operating hours, non-resettable hour meter	The monitoring and use of a non-resettable hour meter is adequate to have a reasonable assurance of compliance.

*Where the requirement appears in the permit (EU = emission unit, SV = stack/vent, GP = group, TF = total facility, CE = control equipment).

3.3 Permit Organization

In general, the permit meets the MPCA Delta Guidance for ordering and grouping of requirements.

3.4 Comments Received

This section will be completed after the referenced review periods.

Public Notice Period: <start date> - <end date>

EPA 45-day Review Period: <start date> - <end date>

4. Permit Fee Assessment

This permit action is the issuance of an individual State permit based on an application received June 4th, 2012. Even though the Permittee previously held a registration permit, this action is not considered a reissuance of an individual state or Part 70 operating permit; therefore, the application fees apply under Minn. R. 7002.0019.

Attachment 4 to this TSD contains the MPCA's assessment of Application and Additional Points used to determine the permit application fee for this permit action as required by Minn. R. 7002.0019. The permit action includes one NSPS and one NESHAP, as well as a limit to remain below the Part 70 permitting threshold, for which additional points apply.

5. Conclusion

Based on the information provided by Otter Tail Power Company – Fergus Control Centers, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 11100058-004 and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Hassan Bouchareb (permit engineer)
Rachel Studanski (enforcement)
Marc Severin (stack testing)
Toni Volkmeier (peer reviewer)

AQ File No. 116I; DQ 3951

Attachments: 1. PTE Summary and Calculation Spreadsheets
2. Facility Description
3. CD-01 Forms
4. Points Calculator
5. Sept. 6, 1995 U.S. EPA Memorandum

ATTACHMENT 1
PTE SUMMARY AND CALCULATION SPREADSHEETS
(Available Electronically in Delta Central File)
(Total Facility PTE is located in "Facility" tab)

Potential to Emit - Fergus Backup Control Center 40 kw Engine
AQ Facility ID No.: 11100058
Emission Unit ID No.: 001
Stack/Vent Designation No: 001

Input Data
Max Fuel Consumption Rate¹ 637 CF/hr
Assumed Nat. Gas Heating Value 1020 Btu/CF
Engine Heat Input 0.65 MMBtu/hr
Assume constant Operation 8760 hrs/yr
Annual Hour Limit 500 hours
Max Yearly MMBtu 5694 MMBtu

HAPS

Pollutant	EF ² (lb/MMBtu)	MMBtu/yr	Potential lbs/yr	Potential lb/hr	Potential Tons/yr	Limited Tons/yr
1,1,2,2-Tetrachloroethane	0.0000253	5694	0.14	1.64E-05	7.20E-05	4.11E-06
1,1,2-Trichloroethane	0.0000153	5694	0.09	9.95E-06	4.36E-05	2.49E-06
1,1-Dichloroethane	0.0000113	5694	0.06	7.35E-06	3.22E-05	1.84E-06
1,2-Dichloroethane	0.0000113	5694	0.06	7.35E-06	3.22E-05	1.84E-06
1,2-Dichloropropane	0.000013	5694	0.07	8.45E-06	3.70E-05	2.11E-06
1,3-Butadiene	0.000663	5694	3.78	4.31E-04	1.89E-03	1.08E-04
1,3-Dichloropropene	0.0000127	5694	0.07	8.26E-06	3.62E-05	2.06E-06
Acetaldehyde	0.00279	5694	15.89	1.81E-03	7.94E-03	4.53E-04
Acrolein	0.00263	5694	14.98	1.71E-03	7.49E-03	4.27E-04
Benzene	0.00158	5694	9.00	1.03E-03	4.50E-03	2.57E-04
Carbon Tetrachloride	0.0000177	5694	0.10	1.15E-05	5.04E-05	2.88E-06
Chlorobenzene	0.0000129	5694	0.07	8.39E-06	3.67E-05	2.10E-06
Chloroform	0.0000137	5694	0.08	8.91E-06	3.90E-05	2.23E-06
Ethylbenzene	0.0000248	5694	0.14	1.61E-05	7.06E-05	4.03E-06
Ethylene Dibromide	0.0000213	5694	0.12	1.38E-05	6.06E-05	3.46E-06
Formaldehyde	0.0205	5694	116.73	1.33E-02	5.84E-02	3.33E-03
Methanol	0.00306	5694	17.42	1.99E-03	8.71E-03	4.97E-04
Methylene Chloride	0.0000412	5694	0.23	2.68E-05	1.17E-04	6.70E-06
Naphthalene	0.0000971	5694	0.55	6.31E-05	2.76E-04	1.58E-05
Styrene	0.0000119	5694	0.07	7.74E-06	3.39E-05	1.93E-06
Toluene	0.000558	5694	3.18	3.63E-04	1.59E-03	9.07E-05
Vinyl Chloride	0.00000718	5694	0.04	4.67E-06	2.04E-05	1.17E-06
Xylene	0.000195	5694	1.11	1.27E-04	5.55E-04	3.17E-05
Total HAPs			184.0	0.021	0.092	0.0053

¹Taken from manufacturer's specification sheet

²EF's taken from AP-42 Table 3.2-3

Criteria Pollutants

Pollutant	EF ² (lb/MMBtu)	MMBtu/yr	Potential lbs/yr	Potential lb/hr	Potential Tons/yr	Limited Tons/yr
PM2.5	0.0095	5694	54.09	0.006	0.027	1.54E-03
PM	0.01941	5694	110.52	0.013	0.055	3.15E-03
PM10	0.0095	5694	54.09	0.006	0.027	1.54E-03
SO2	0.000588	5694	3.35	0.00038	0.0017	9.56E-05
NOx	2.21	5694	12583.74	1.44	6.29	3.59E-01
VOC	0.0296	5694	168.54	0.019	0.084	4.81E-03
CO	3.72	5694	21181.68	2.42	10.59	6.05E-01
PB	neg	5694	neg	neg	neg	neg
Fluorides	neg	5694	neg	neg	neg	neg
Sulfuric Acid mist	neg	5694	neg	neg	neg	neg
H2S	neg	5694	neg	neg	neg	neg
Total			34,156.02		17.08	

GHGs

Pollutant	EF ² (lb/MMBtu)	MMBtu/yr	Potential lbs/yr	Potential lb/hr	Potential Tons/yr	Limited Tons/yr	Potential CO2e lb/hr	Potential CO2e Tons/yr	Limited CO2e Tons/yr
CO2	110	5694	626,340.00	71.50	313.17	17.88	71.50	313.17	17.88
CH4	0.23	5694	1,309.62	0.15	0.65	0.04	3.14	13.75	0.78
N2O	neg	5694	neg	neg	neg	neg	neg	neg	neg
HFC	neg	5694	neg	neg	neg	neg	neg	neg	neg
PFC	neg	5694	neg	neg	neg	neg	neg	neg	neg
Sf6	neg	5694	neg	neg	neg	neg	neg	neg	neg
Total							74.64	326.92	18.66

*GHG Emission Factors from Part 98

Otter Tail Power, Fergus Control Centers
 AQ Facility ID No.: 11100058
 Total Facility Summary

Criteria Pollutants

Pollutant	potential lbs/hr	potential tons/year	limited tons/year	Actual Expected tons/year
PM2.5	0.96	4.21	0.24	0.007
PM	1.73	7.59	0.43	0.012
PM10	0.99	4.34	0.25	0.007
SO2	0.87	3.80	0.22	0.006
NOx	56.45	247.25	14.11	0.381
VOC	1.43	6.25	0.36	0.010
CO	17.03	74.60	4.26	0.101

GHGs

Pollutant	potential lbs/hr	potential tons/year	limited tons/year	Actual Expected tons/year
CO2	2,874.72	12,591.27	718.68	20.12
CH4	0.26	1.15	0.07	0.002
N2O	0.02	0.10	0.01	0.0002
CO2e	2,887.30	12,646.36	721.82	20.22

HAPS

Pollutant	potential lbs/hr	potential tons/year	limited tons/year	Actual Expected tons/year
1,1,2,2-Tetrachloroethane	1.64E-05	7.20E-05	4.11E-06	1.64E-07
1,1,2-Trichloroethane	9.95E-06	4.36E-05	2.49E-06	9.95E-08
1,1-Dichloroethane	7.35E-06	3.22E-05	1.84E-06	7.35E-08
1,2-Dichloroethane	7.35E-06	3.22E-05	1.84E-06	7.35E-08
1,2-Dichloropropane	8.45E-06	3.70E-05	2.11E-06	8.45E-08
1,3-Butadiene	4.31E-04	1.89E-03	1.08E-04	4.31E-06
1,3-Dichloropropene	8.26E-06	3.62E-05	2.06E-06	8.26E-08
Acetaldehyde	2.25E-03	9.84E-03	5.62E-04	2.25E-05
Acrolein	1.84E-03	8.08E-03	4.61E-04	1.84E-05
Benzene	1.44E-02	6.29E-02	3.59E-03	1.44E-04
Carbon Tetrachloride	1.15E-05	5.04E-05	2.88E-06	1.15E-07
Chlorobenzene	8.39E-06	3.67E-05	2.10E-06	8.39E-08
Chloroform	8.91E-06	3.90E-05	2.23E-06	8.91E-08
Ethylbenzene	1.61E-05	7.06E-05	4.03E-06	1.61E-07
Ethylene Dibromide	1.38E-05	6.06E-05	3.46E-06	1.38E-07
Formaldehyde	1.47E-02	6.43E-02	3.67E-03	1.47E-04
Methanol	1.99E-03	8.71E-03	4.97E-04	1.99E-05
Methylene Chloride	2.68E-05	1.17E-04	6.70E-06	2.68E-07
Naphthalene	2.30E-03	1.01E-02	5.75E-04	2.30E-05
Styrene	7.74E-06	3.39E-05	1.93E-06	7.74E-08
Toluene	5.19E-03	2.27E-02	1.30E-03	5.19E-05
Vinyl Chloride	4.67E-06	2.04E-05	1.17E-06	4.67E-08
Xylene	3.44E-03	1.51E-02	8.61E-04	3.44E-05
Total HAPs	4.67E-02	2.04E-01	1.17E-02	4.67E-04

ATTACHMENT 2
FACILITY DESCRIPTION
(Available Electronically in Delta)



FACILITY DESCRIPTION: BUILDINGS (BG)

Show: Active and Pending Records

Action: PER 004

AQD Facility ID: 11100058

Facility Name: Fergus Control Centers

	ID No.	Added By (Action)	Retired By (Action)	Operator ID for Item	Length (feet)	Width (feet)	Roof Height from Ground (feet)	Description/Comment	Building Status
1	BG 001	PER 004			35	25	16	Building house's emergency gas engine	Active
2	BG 002	PER 004			28	10	13	Building house's emergency diesel engine	Active
3	BG 003	PER 004			200	100	22	Vehicle storage	Active
4	BG 004	PER 004			215	160	22	Print/mail services, sys. ops., computer IT	Active
5	BG 005	PER 004			160	120	32	General offices	Active
6	BG 006	PER 004			115	75	32	Customer service center	Active
7	BG 007	PER 004			140	65	16	Energy measurement & control, meter repair	Active



FACILITY DESCRIPTION: STACK/VENTS (SV)

Show: Active and Pending Records

Action: PER 004

AQD Facility ID: 11100058

Facility Name: Fergus Control Centers

	ID No.	Stack/ Vent Status	Added By (Action)	Retired By (Action)	Operator ID for Item	Operators Description	Height of Opening From Ground (feet)	Inside Dimensions		Design Flow Rate at Top (ACFM)	Exit Gas Temperature at Top (°F)	Flow Rate/ Temperature Information Source	Discharge Direction
								Diameter or Length (feet)	Width (feet)				
1	SV 001	Active	PER 004			Natural gas engine exhaust	13	0.25		291	960	Manufacturer	Horizontal
2	SV 002	Active	PER 004			Diesel engine exhaust	16	1.33		15850	910	Manufacturer	Up, unknown Cap



MINNESOTA POLLUTION CONTROL AGENCY
AIR QUALITY
520 LAFAYETTE ROAD
ST. PAUL, MN 55155-4194

18 October, 2012 14:47

FACILITY DESCRIPTION: CONTROL EQUIPMENT (CE)

Show: Active and Pending Records

Action: PER 004

AQD Facility ID: 11100058

Facility Name: Fergus Control Centers

	ID No.	Control Equip. Status	Added By (Action)	Retired By (Action)	Operator ID for Item	Control Equip. Type	Control Equipment Description	Manufacturer	Model	Pollutants Controlled	Capture Efficiency (%)	Destruction/Collection Efficiency (%)	Afterburner Combustion Parameters
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FACILITY DESCRIPTION: EMISSION UNIT (EU)

Show: Active and Pending Records

Action: PER 004

AQD Facility ID: 11100058

Facility Name: Fergus Control Centers

	ID No.	Emission Unit Status	Added By (Action)	Retired By (Action)	Insignificant Activity	Operator ID for Item	Stack/Vent ID No(s).	Control Equip. ID No(s).	Operator Description	Manufacturer	Model Number	SIC	Max. Design Capacity	Maximum Design Capacity			Max Fuel Input (mil Btu)
														Materials	Units n	Units d	
1	EU 001	Active	PER 004		<input type="checkbox"/>		SV 001 (M)		Emergency backup natural gas engine	Caterpillar/Olympian	G40LG	4911	40	Elect Energy	Kw	Hr	0.65
2	EU 002	Active	PER 004		<input type="checkbox"/>		SV 002 (M)		Emergency diesel engine	Caterpillar	3516	4911	1825	Elect Energy	Kw	Hr	17.192

FACILITY DESCRIPTION: EMISSION UNIT (EU)

	ID No.	Emission Unit Status	Added By (Action)	Commence Const. Date	Initial Startup Date	Removal Date	Firing Method	Pct. Fuel/ Space Heat	Bottleneck	Elevator Type
1	EU 001	Active	PER 004	09/01/2012	11/01/2012					
2	EU 002	Active	PER 004	01/01/1995	01/01/1995					



MINNESOTA POLLUTION CONTROL AGENCY
AIR QUALITY
520 LAFAYETTE ROAD
ST. PAUL, MN 55155-4194

18 October, 2012 14:47

FACILITY DESCRIPTION: STORAGE TANKS (TK)

Show: Active and Pending Records

Action: PER 004

AQD Facility ID: 11100058

Facility Name: Fergus Control Centers

	ID No.	Tank Status	Added By (Action)	Retired By (Action)	Insignif- icant Activity	Operator ID for Item	Control Equip. ID No(s).	Product Stored	Interior Height (ft.)	Interior Diameter (ft.)	Capacity (1000 gal)	Construction Type
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FACILITY DESCRIPTION: STORAGE TANKS (TK)

	ID No.	Tank Status	Added By (Action)	Support Type (floating roof only)	Column Count	Column Diameter (ft.)	Deck Type (floating roof only)	Seal Type (floating roof only)	Year Installed	Year Removed
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MINNESOTA POLLUTION CONTROL AGENCY
AIR QUALITY
520 LAFAYETTE ROAD
ST. PAUL, MN 55155-4194

18 October, 2012 14:48

FACILITY DESCRIPTION: FUGITIVE SOURCES (FS)

Show: Active and Pending Records

Action: PER 004

AQD Facility ID: 11100058

Facility Name: Fergus Control Centers

	ID No.	Fugitive Source Status	Added By (Action)	Retired By (Action)	Insignif- icant Activity	Operator ID for Item	Pollutant(s) Emitted	Control Equip. ID No(s).	Fugitive Source Description	Year Installed	Year Removed
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MINNESOTA POLLUTION CONTROL AGENCY
AIR QUALITY
520 LAFAYETTE ROAD
ST. PAUL, MN 55155-4194

18 October, 2012 14:46

FACILITY DESCRIPTION: GROUPS (GP)

Show: Active and Pending Records

Action: PER 004

AQD Facility ID: 11100058

Facility Name: Fergus Control Centers

	ID No.	Group Status	Added By (Action)	Retired By (Action)	Include in EI	Operator ID for Item	Group Description	Group Items
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FACILITY DESCRIPTION: Potential-to-emit (by item)

Show: Active and Pending Records

AQD Facility ID: 11100058

Facility Name: Fergus Control Centers

Item	Pollutant	Added By (Action)	Retired By (Action)	Hourly Potential (lbs per hr)	Unrestricted Potential (tons per yr)	Limited Potential (tons per yr)	Actual Emissions (tons per yr)
EU 001							
	Acetaldehyde	PER 004		1.04E-04	7.94E-03	4.53E-04	
	Acrolein	PER 004		9.76E-05	7.49E-03	4.27E-04	
	Benzene	PER 004		5.86E-05	4.50E-03	2.57E-04	
	1,3-Butadiene	PER 004		2.46E-05	1.89E-03	1.08E-04	
	Carbon tetrachloride	PER 004		6.57E-07	5.04E-05	2.88E-06	
	Carbon Dioxide Equivalent	PER 004		4.26E+00	3.27E+02	1.87E+01	
	Chlorobenzene	PER 004		4.79E-07	3.67E-05	2.10E-06	
	Chloroform	PER 004		5.08E-07	3.90E-05	2.23E-06	
	Carbon Monoxide	PER 004		1.38E-01	1.06E+01	6.05E-01	
	1,1-Dichloroethane	PER 004		4.19E-07	3.22E-05	1.84E-06	
	1,2-Dichloroethane	PER 004		4.19E-07	3.22E-05	1.84E-06	
	1,2-Dichloropropane	PER 004		4.82E-07	3.70E-05	2.11E-06	
	1,3-Dichloropropene	PER 004		4.71E-07	3.62E-05	2.06E-06	
	Ethylbenzene	PER 004		9.20E-07	7.06E-05	4.03E-06	
	Formaldehyde	PER 004		7.61E-04	5.84E-02	3.33E-03	
	Methanol	PER 004		1.14E-04	8.71E-03	4.97E-04	
	Naphthalene	PER 004		3.60E-06	2.76E-04	1.58E-05	
	Styrene	PER 004		4.41E-07	3.39E-05	1.93E-06	
	1,1,2,2-Tetrachloroethane	PER 004		9.39E-07	7.20E-05	4.11E-06	
	Toluene	PER 004		2.07E-05	1.59E-03	9.07E-05	
	1,1,2-Trichloroethane	PER 004		5.68E-07	4.36E-05	2.49E-06	
	Vinyl chloride	PER 004		2.66E-07	2.04E-05	1.17E-06	
	Xylenes (mixed isomers)	PER 004		7.23E-06	5.55E-04	3.17E-05	
	Ethylene dibromide (dibromoeth)	PER 004		7.90E-07	6.06E-05	3.46E-06	
	Methylene chloride (dichlorome	PER 004		1.53E-06	1.17E-04	6.70E-06	
	Nitrogen Oxides	PER 004		8.20E-02	6.29E+00	3.59E-01	
	PM < 2.5 micron	PER 004		3.52E-04	3.00E-02	1.54E-03	
	PM < 10 micron	PER 004		3.52E-04	3.00E-02	1.54E-03	
	Total Particulate Matter	PER 004		7.20E-04	6.00E-02	3.15E-03	
	Sulfur Dioxide	PER 004		4.00E-04	1.70E-03	9.56E-05	
	Volatile Organic Compounds	PER 004		1.10E-03	8.00E-02	4.81E-03	
EU 002							
	Acetaldehyde	PER 004		2.00E-05	1.90E-03	1.00E-04	
	Acrolein	PER 004		1.00E-05	6.00E-04	3.00E-05	
	Benzene	PER 004		1.00E-03	5.84E-02	3.30E-03	
	Carbon Dioxide Equivalent	PER 004		1.61E+02	1.23E+04	7.03E+02	
	Carbon Monoxide	PER 004		8.30E-01	6.40E+01	3.65E+00	
	Formaldehyde	PER 004		1.00E-04	5.90E-03	3.00E-04	
	Naphthalene	PER 004		1.00E-04	9.80E-03	6.00E-04	
	Toluene	PER 004		3.00E-04	2.12E-02	1.20E-03	
	Xylenes (mixed isomers)	PER 004		2.00E-04	1.45E-02	8.00E-04	
	Nitrogen Oxides	PER 004		3.14E+00	2.41E+02	1.38E+01	
	PM < 2.5 micron	PER 004		5.00E-02	4.19E+00	2.40E-01	
	PM < 10 micron	PER 004		6.00E-02	4.31E+00	2.50E-01	
	Total Particulate Matter	PER 004		1.00E-01	7.53E+00	4.30E-01	
	Sulfur Dioxide	PER 004		5.00E-02	3.80E+00	2.20E-01	

FACILITY DESCRIPTION: Potential-to-emit (by item)

Show: Active and Pending Records

AQD Facility ID: 11100058

Facility Name: Fergus Control Centers

Item	Pollutant	Added By (Action)	Retired By (Action)	Hourly Potential (lbs per hr)	Unrestricted Potential (tons per yr)	Limited Potential (tons per yr)	Actual Emissions (tons per yr)
EU 002							
	Volatile Organic Compounds	PER 004		8.00E-02	6.17E+00	3.50E-01	



MINNESOTA POLLUTION CONTROL AGENCY
AIR QUALITY
520 LAFAYETTE ROAD
ST. PAUL, MN 55155-4194

18 October, 2012 14:48

FACILITY DESCRIPTION: CONTINUOUS MONITORS (MR)

Show: Active and Pending Records

Action: PER 004

AQD Facility ID: 11100058

Facility Name: Fergus Control Centers

	ID No.	Monitor Status	Added By (Action)	Retired By (Action)	Monitored Item (ID No(s).)	Operator ID for Item	Monitor Description	Manufacturer	Model Number	Serial Number	Parameters Monitored
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FACILITY DESCRIPTION: CONTINUOUS MONITORS (MR)

	ID No.	Monitor Status	Added By (Action)	Span Value	System Full- Scale Value	Bypass Capa- bility?	Optical Path Length Ratio	Installation Date	Removal Date
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MINNESOTA POLLUTION CONTROL AGENCY
AIR QUALITY
520 LAFAYETTE ROAD
ST. PAUL, MN 55155-4194

18 October, 2012 14:48

FACILITY DESCRIPTION: DATA ACQUISITION SYSTEMS (DA)

Show: Active and Pending Records

Action: PER 004

AQD Facility ID: 11100058

Facility Name: Fergus Control Centers

	ID No.	DAS Status	Added By (Action)	Retired By (Action)	Operator ID for Item	Data Acquisition System Description	Manufacturer	Model Number	Serial Number	Data Storage Medium	Installation Date	Removal Date
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FACILITY DESCRIPTION: CONTINUOUS MONITORING SYSTEMS (CM)

Show: Active and Pending Records

Action: PER 004

AQD Facility ID: 11100058

Facility Name: Fergus Control Centers

	ID No.	CMS Status	Added By (Action)	Retired By (Action)	Monitor ID No(s).	DAS ID No(s).	Operator ID for Item	CMS Description	Parameter	Month/ Year Installed	Month/ Year Removed	Cert. Date	Cert. Basis
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ATTACHMENT 3
CD-01 FORMS
(Available Electronically in Delta)



COMPLIANCE PLAN **CD-01**

Facility Name: Fergus Control Centers

Permit Number: 11100058 - 004

Subject Item: Total Facility

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	OPERATIONAL REQUIREMENTS
2.0		CD	Minn. R. 7011.0020	Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.
3.0		CD	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)	Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated.
4.0		CD	Minn. R. 7007.0800, subps. 14 and 16(J)	Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. At a minimum, the O & M plan shall identify all air pollution control equipment and control practices and shall include a preventative maintenance program for the equipment and practices, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment and practices to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment and practices, and the records kept to demonstrate plan implementation.
5.0		CD	Minn. R. 7019.1000, subp. 4	Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate.
6.0		CD	Minn. R. 7011.0150	Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150.
7.0		CD	Minn. R. 7030.0010 - 7030.0080	Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.
8.0		CD	Minn. R. 7007.0800, subp. 9(A)	Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A).
9.0		CD	Minn. R. 7007.0800, subp. 16	The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.
10.0		CD	hdr	PERFORMANCE TESTING
11.0		CD	Minn. R. ch. 7017	Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A, B, and/or C.
12.0		CD	Minn. R. 7017.2018; Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2	<p>Performance Test Notifications and Submittals:</p> <p>Performance Tests are due as outlined in Table A of the permit. See Table B for additional testing requirements.</p> <p>Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-test Meeting: due 7 days before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy: due 105 days after each Performance Test</p> <p>The Notification, Test Plan, and Test Report may be submitted in an alternative format as allowed by Minn. R. 7017.2018.</p>
13.0		CD	Minn. R. 7017.2025, subp. 3	Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as stated in the MPCA's Notice of Compliance letter granting preliminary approval. Preliminary approval is based on formal review of a subsequent performance test on the same unit as specified by Minn. R. 7017.2025, subp. 3. The limit is final upon issuance of a permit amendment incorporating the change.
14.0		CD	hdr	MONITORING REQUIREMENTS



COMPLIANCE PLAN **CD-01**

Facility Name: Fergus Control Centers

Permit Number: 11100058 - 004

15.0		CD	Minn. R. 7007.0800, subp. 4(D)	Monitoring Equipment Calibration: The Permittee shall calibrate all required monitoring equipment at least once every 12 months (any requirements applying to continuous emission monitors are listed separately in this permit).
16.0		CD	Minn. R. 7007.0800, subp. 4(D)	Operation of Monitoring Equipment: Unless otherwise noted in Tables A, B, and/or C, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system.
17.0		CD	hdr	RECORDKEEPING
18.0		CD	Minn. R. 7007.0800, subp. 5(C)	Recordkeeping: Retain all records at the stationary source, unless otherwise specified within this permit, for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).
19.0		CD	Minn. R. 7007.0800, subp. 5(B)	Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350, subp. 2), including records of the emissions resulting from those changes.
20.0		CD	Minn. R. 7007.1200, subp. 4	If the Permittee determines that no permit amendment or notification is required prior to making a change, the Permittee must retain records of all calculations required under Minn. R. 7007.1200. For expiring permits, these records shall be kept for a period of five years from the date the change was made or until permit reissuance, whichever is longer. The records shall be kept at the stationary source for the current calendar year of operation and may be kept at the stationary source or office of the stationary source for all other years. The records may be maintained in either electronic or paper format.
21.0		CD	hdr	REPORTING/SUBMITTALS
22.0		CD	Minn. R. 7019.1000, subp. 3	<p>Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3.</p> <p>At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.</p>
23.0		CD	Minn. R. 7019.1000, subp. 2	<p>Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2.</p> <p>At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.</p>
24.0		CD	Minn. R. 7019.1000, subp. 1	Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment.



COMPLIANCE PLAN **CD-01**

Facility Name: Fergus Control Centers

Permit Number: 11100058 - 004

25.0		CD	Minn. R. 7019.1000, subp. 1	Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description: 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.
26.0		S/A	Minn. R. 7007.0800, subp. 6(A)(2)	Semiannual Deviations Report: due 30 days after end of each calendar half-year following Permit Issuance. The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. If no deviations have occurred, the Permittee shall submit the report stating no deviations.
27.0		CD	Minn. R. 7007.1150 - 7007.1500	Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.
28.0		CD	Minn. R. 7007.1400, subp. 1(H)	Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H). Performance testing deadlines from the General Provisions of 40 CFR pt. 60 and pt. 63 are examples of deadlines for which the MPCA does not have authority to grant extensions and therefore do not meet the requirements of Minn. R. 7007.1400, subp. 1(H).
29.0		S/A	Minn. R. 7007.0800, subp. 6(C)	Compliance Certification: due 31 days after end of each calendar year following Permit Issuance (for the previous calendar year). The Permittee shall submit this to the Commissioner on a form approved by the Commissioner. This report covers all deviations experienced during the calendar year.
30.0		CD	Minn. R. 7019.3000 - 7019.3100	Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance, to be submitted on a form approved by the Commissioner.
31.0		CD	Minn. R. 7002.0005 - 7002.0095	Emission Fees: due 60 days after receipt of an MPCA bill.



COMPLIANCE PLAN **CD-01**

Facility Name: Fergus Control Centers

Permit Number: 11100058 - 004

Subject Item: EU 001 Emergency backup natural gas engine

Associated Items: SV 001 Natural gas engine exhaust

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	CONSTRUCTION AUTHORIZATION
2.0		CD	Minn. R. 7007.0800, subp. 2	The Permittee is authorized to install and operate the equipment described by EU 001. The unit shall meet all the requirements of this permit (e.g., EU 001). The construction authorization expires 18 months after permit issuance.
3.0		CD	hdr	EMISSION AND OPERATING LIMITS
4.0		LIMIT	Minn. R. 7011.2300, subp. 1	Opacity: less than or equal to 20 percent opacity once operating temperatures have been attained.
5.0		LIMIT	Minn. R. 7011.2300, subp. 2	Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input . Potential to emit for this unit is 0.00003 lb/MMBtu due to equipment design and allowable fuels.
6.0		LIMIT	Minn. R. 7007.0800, subps. 2, 4, and 5	Operating Hours: less than or equal to 500 hours/year using 12-month Rolling Sum to be calculated by the 15th day of each month. The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators", dated September 6, 1995, limiting operation to 500 hours per year.
7.0		CD	Minn. R. 7005.0100, subp. 35a	Fuel type: Natural gas only by design.
8.0		CD	hdr	RECORDKEEPING REQUIREMENTS
9.0		CD	Minn. R. 7007.0800, subps. 4 and 5	Recordkeeping - Hours of Operation: The Permittee shall maintain documentation of hours of operation for EU 001.
10.0		CD	Minn. R. 7007.0800, subp. 6	Reporting: Annually by January 30th the report of the previous 12 monthly 12-month rolling sum calculations on the emergency backup natural gas engine.
11.0		CD	Minn. R. 7007.0800, subp. 5	The Permittee shall keep records of fuel type and usage on a monthly basis.
12.0		CD	hdr	NESHAP SUBPART ZZZZ APPLICABILITY
13.0		CD	40 CFR Section 63.6590(c); Minn. R. 7011.8150	EU 001 is a new affected source as defined under 40 CFR pt. 63, subp. ZZZZ, and the facility is an area source as defined at 40 CFR Section 63.2. The Permittee shall meet the requirements of 40 CFR pt. 63, subp. ZZZZ by meeting the requirements of 40 CFR pt. 60, subp. JJJJ. No further requirements of 40 CFR pt. 63, subp. ZZZZ apply to EU 001.
14.0		CD	hdr	NSPS SUBPART JJJJ EMISSION AND OPERATING LIMITS
15.0		LIMIT	40 CFR Section 60.4233(d)	Nitrogen Oxides: less than or equal to 10 grams/horsepower-hour . This emission limit applicable to EU 001 is in terms of Nitrogen Oxides + Hydrocarbons (NOx + HC).
16.0		LIMIT	40 CFR Section 60.4233(d)	Carbon Monoxide: less than or equal to 387 grams/horsepower-hour .
17.0		CD	40 CFR Section 60.4243(d)	EU 001 may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of EU 001 is limited to 100 hours per year. There is no time limit on the use of EU 001 in emergency situations. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. EU 001 may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing.



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Facility Name: Fergus Control Centers

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18.0		CD	40 CFR Section 60.4243(d)	The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. For the Permittee of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in 40 CFR Section 60.4243, is prohibited.
19.0		CD	hdr	NSPS SUBPART JJJJ OPERATIONAL REQUIREMENTS
20.0		CD	40 CFR Section 60.4234	The Permittee shall operate and maintain the stationary SI RICE that achieves the emission standards as required in 40 CFR Section 60.4233 over the entire life of the engine.
21.0		CD	40 CFR Section 60.4237(c)	The Permittee shall install a non-resettable hour meter upon startup of EU 001, if one is not already installed.
22.0		CD	40 CFR Section 60.4243(a)(1); 40 CFR Section 60.4243(b)(1)	<p>The Permittee shall operate and maintain the certified stationary SI RICE and control device according to the manufacturer's emission-related written instructions and keep records of conducted maintenance to demonstrate compliance. No performance testing is required if the Permittee is the owner or operator.</p> <p>The Permittee shall also meet the requirements as specified in 40 CFR pt. 1068, subps. A through D as applicable. If engine settings are adjusted according to and consistent with the manufacturer's instructions, your SI RICE will not be considered out of compliance.</p>
23.0		CD	40 CFR Section 60.4246	The Permittee shall comply with the applicable provisions of 40 CFR pt. 60, subp. A, as required by Table 3 of 40 CFR pt. 60, subp. JJJJ.
24.0		S/A	40 CFR Section 60.4246; 40 CFR Section 60.7(a)(1); Minn. R. 7019.0100, subp. 1	Notification of the Date Construction Began: due 30 days after Start Of Construction. Submit the name and number of each unit and the date construction of each unit began.
25.0		S/A	40 CFR Section 60.4246; 40 CFR Section 60.7(a)(3); Minn. R. 7019.0100, subp. 1	Notification of the Actual Date of Initial Startup: due 15 days after Initial Startup.
26.0		CD	40 CFR Section 60.4246; 40 CFR Section 60.7(a)(4); Minn. R. 7019.0100, subp. 1	Notification of any physical or operational change which increases emission rate: due 60 days (or as soon as practical) before the change is commenced.
27.0		CD	40 CFR Section 60.4246; 40 CFR Section 60.12; Minn. R. 7011.0050	No owner or operator shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard.
28.0		CD	hdr	NSPS SUBPART JJJJ RECORDKEEPING REQUIREMENTS
29.0		CD	40 CFR Section 60.4245(a)	<p>The Permittee shall keep records of the the following information:</p> <p>(1) All notifications submitted to comply with 40 CFR pt. 60, subp. JJJJ and all documentation supporting any notification.</p> <p>(2) Maintenance consucted on the engine.</p> <p>(3) If the stationary SI RICE is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR pts. 90, 1048, 1054, and 1060 as applicable.</p>
30.0		CD	40 CFR Section 60.4245(b)	The Permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.
31.0		CD	40 CFR Section 60.4246; 40 CFR Section 60.7(b); Minn. R. 7019.0100, subp. 1	Recordkeeping: Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the facility including; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
32.0		CD	40 CFR Section 60.4246; Minn. R. 7997.0800, subp. 5(C); meets requirements of 40 CFR Section 60.7(f); Minn. R. 7019.0100, subp. 1	Recordkeeping: Maintain a file of all measurements, maintenance, reports and records for at least five years. 40 CFR Section 60.7(f) specifies two years.



COMPLIANCE PLAN **CD-01**

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Subject Item: EU 002 Emergency diesel engine

Associated Items: SV 002 Diesel engine exhaust

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	EMISSION AND OPERATING LIMITS
2.0		LIMIT	Minn. R. 7011.2300, subp. 1	Opacity: less than or equal to 20 percent opacity once operating temperatures have been attained.
3.0		LIMIT	Minn. R. 7011.2300, subp. 2	Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input . Potential to emit for this unit is 0.0029 lb/MMBtu due to equipment design and allowable fuels.
4.0		LIMIT	Minn. R. 7007.0800, subp. 2	Sulfur Content of Fuel: less than or equal to 0.5 percent by weight .
5.0		LIMIT	Title I Condition: To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subps. 2, 4, and 5	Operating Hours: less than or equal to 500 hours/year using 12-month Rolling Sum to be calculated by the 15th day of each month.
6.0		CD	Minn. R. 7005.0100, subp. 35a	Fuel type: Diesel fuel oil only by design.
7.0		CD	hdr	RECORDKEEPING REQUIREMENTS
8.0		CD	Title I Condition: To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 6	Reporting: Annually by January 30th, the report of the previous 12 monthly 12-month rolling sum calculations on the emergency diesel engine.
9.0		CD	Minn. R. 7007.0800, subps. 4 & 5	Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of Diesel fuel oil, certifying that the sulfur content does not exceed 0.50% by weight.
10.0		CD	Minn. R. 7007.0800, subp. 5	The Permittee shall keep records of fuel type and usage on a monthly basis.
11.0		CD	hdr	NESHAP SUBPART ZZZZ APPLICABILITY
12.0		CD	40 CFR Section 63.6595(a)(1); Minn. R. 7011.8150	The Permittee shall comply with the applicable limitations from 40 CFR pt. 63, subp. ZZZZ, including those listed below, no later than May 3, 2013.
13.0		CD	hdr	NESHAP OPERATIONAL REQUIREMENTS
14.0		CD	40 CFR Section 63.6603; 40 CFR Section 63.6640; and Table 2d to subpart ZZZZ of Part 63; Minn. R. 7011.8150	Change oil and filter every 500 hours of operation or annually, whichever comes first. The Permittee has the option of utilizing an oil analysis program in order to extend the oil change requirement as described below.
15.0		CD	40 CFR Section 63.6603; 40 CFR Section 63.6640; and Table 2d to subpart ZZZZ of Part 63; Minn. R. 7011.8150	Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.
16.0		CD	40 CFR Section 63.6603; 40 CFR Section 63.6640; and Table 2d to subpart ZZZZ of Part 63; Minn. R. 7011.8150	Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
17.0		CD	40 CFR Section 63.6605(a); Minn. R. 7011.8150	The Permittee shall be in compliance with the operating limitations that apply at all times.
18.0		CD	40 CFR Section 63.6605(b); Minn. R. 7011.8150	At all times the Permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.



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19.0		CD	40 CFR Section 63.6625(e); Minn. R. 7011.8150	The Permittee shall operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which shall provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
20.0		CD	Title I Condition: To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; 40 CFR Section 63.6625(f); Minn. R. 7011.8150	The Permittee shall install a non-resettable hour meter upon Permit issuance, if one is not already installed.
21.0		CD	40 CFR Section 63.6625(h); Minn. R. 7011.8150	The Permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply.
22.0		CD	40 CFR Section 63.6625(i); Minn. R. 7011.8150	The Permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement. The oil analysis shall be performed at the same frequency specified for changing the oil. The analysis program shall at a minimum analyze the following 3 parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. (continued below)
23.0		CD	40 CFR Section 63.6625(i); Minn. R. 7011.8150	(continued from above) If none of the condemning limits are exceeded, the Permittee is not required to change the oil. If any of the limits are exceeded, the Permittee shall change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the Permittee shall change the oil within 2 days or before commencing operation, whichever is later. The Permittee shall keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program shall be part of the maintenance plan for the engine.
24.0		CD	40 CFR Section 63.6640(a); 40 CFR Section 63.6655(d); 40 CFR pt. 63 subp. ZZZZ, Table 6	The Permittee shall operate and maintain the stationary RICE according to the manufacturer's emission related operation and maintenance instructions; or the Permittee shall develop and follow a maintenance plan which shall provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
25.0		CD	40 CFR Section 63.6665; Minn. R. 7011.8150	The Permittee shall comply with the applicable provisions of 40 CFR pt. 63, subp. A, as required by Table 8 of 40 CFR pt. 63, subp. ZZZZ.
26.0		CD	40 CFR Section 63.6665; 40 CFR Section 63.4(b); Minn.R. 7011.7000	The Permittee shall not build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to: 1. The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere; 2. The use of gaseous diluents to achieve compliance with a relevant standard for visible emissions.
27.0		CD	hdr	NESHAP REQUIREMENTS FOR EMERGENCY STATIONARY RICE
28.0		CD	40 CFR Section 63.6640(f)(1); Minn. R. 7011.8150	The Permittee shall operate the emergency stationary RICE according to the requirements in paragraphs 40 CFR Section 63.6640 (f)(1)(i) through (iii). Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR Section 63.6640(f)(i) through (iii), is prohibited. If the engine is not operated according to the requirements in 40 CFR Section 63.6640(f)(1)(i) through (iii), the engine will not be considered an emergency engine under 40 CFR pt. 63, subp. ZZZZ and will need to meet all requirements for non-emergency engines.



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29.0		CD	40 CFR Section 63.6640(f)(1)(i) - (ii); Minn. R. 7011.8150	(i) There is no time limit on the use of emergency stationary RICE in emergency situations. (ii) The Permittee shall operate the emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indication that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.
30.0		CD	40 CFR Section 63.6640(f)(1)(iii); Minn. R. 7011.8150	(iii) The Permittee shall operate the emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that the Permittee may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. (continued below)
31.0		CD	40 CFR Section 63.6640(f)(1)(iii); Minn. R. 7011.8150	(continued from above) The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation shall be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph, as long as the power provided by the financial arrangement is limited to emergency power.
32.0		CD	hdr	NESHAP RECORDKEEPING REQUIREMENTS
33.0		CD	40 CFR Section 63.6665(a); Minn. R. 7011.8150	The Permittee shall keep the following records: 1) A copy of each notification and report submitted to comply with 40 CFR pt. 63, subp. ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted according to the requirement in 40 CFR Section 63.10(b)(2)(xiv). 2) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. 3) Records of performance tests and performance evaluations as required in 40 CFR Section 63.10(b)(2)(viii). 4) Records of all required maintenance performed on the air pollution control and monitoring equipment; and 5) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR Section 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
34.0		CD	40 CFR Section 63.6655(e); Minn. R. 7011.8150	The Permittee shall keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the Permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to the maintenance plan.
35.0		CD	Title I Condition: To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; 40 CFR Section 63.6655(f); Minn. R. 7011.8150	The Permittee shall keep records of the hours of operation of the engine that are recorded through the non-resettable hour meter. The Permittee shall document how many hours are spent for emergency operation; including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for demand response operation, the Permittee shall keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.



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36.0		CD	40 CFR Section 63.6660; 40 CFR Section 63.10(b)(1); Minn. R. 7011.8150	<p>The Permittee shall keep records in a form suitable and readily available for expeditious review according to 40 CFR Section 63.10(b)(1).</p> <p>As specified in 40 CFR Section 63.10(b)(1), the Permittee shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or record.</p>
37.0		CD	hdr	NESHAP REPORTING AND NOTIFICATION REQUIREMENTS
38.0		CD	40 CFR Section 63.6640(b); 40 CFR Section 63.6650(f); Minn. R. 7011.8150	The Permittee shall report each instance in which the stationary RICE did not meet each applicable operating limitation. These instances are deviations from the operating limitations. These deviations shall be reported with the deviations report required by Table A (listed at the Total Facility level) and B of this permit.

ATTACHMENT 4
POINTS CALCULATOR

(Available Electronically in Delta Central File)

Points Calculator

1) AQ Facility ID No.:	11100058
2) Facility Name:	Fergus Control Centers
3) Small business? y/n?	n
4) DQ Numbers (including all rolled) :	3951
5) Date of each Application Received:	June 4, 2012
6) Final Permit No.	11100058-004
7) Permit Staff	Hassan Bouchareb
8) "Work completed" in which .xls file (i.e. unit 2b, unit 1a, biofuels)?	N/A

Total Points	80
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Application Type	DQ No.	Qty.	Points	Total Points	Details
Administrative Amendment			1	0	
Minor Amendment			4	0	
Applicability Request			10	0	
Moderate Amendment			15	0	
Major Amendment			25	0	
Individual State Permit (not reissuance)	3951	1	50	50	
Individual Part 70 Permit (not reissuance)			75	0	
Additional Points					
Modeling Review			15	0	
BACT Review			15	0	
LAER Review			15	0	
CAIR/Part 75 CEM analysis			10	0	
NSPS Review	3951	1	10	10	NSPS JJJJ
NESHAP Review	3951	1	10	10	NESHAP ZZZZ
Case-by-case MACT Review			20	0	
Netting			10	0	
Limits to remain below threshold	3951	1	10	10	Part 70
Plantwide Applicability Limit (PAL)			20	0	
AERA review			15	0	
Variance request under 7000.7000			35	0	
Confidentiality request under 7000.1300			2	0	
EAW review					
Part 4410.4300, subparts 18, item A; and 29			15	0	
Part 4410.4300, subparts 8, items A & B; 10, items A to C; 16, items A & D; 17, items A to C & E to G; and 18, items B & C			35	0	
Part 4410.4300, subparts 4; 5 items A & B; 13; 15; 16, items B & C; and 17 item D			70	0	
Add'l Points				30	

NOTES:

ATTACHMENT 5

SEPT. 6, 1995 U.S. EPA MEMORANDUM

(Available Electronically in Delta Central File)

September 6, 1995

MEMORANDUM

SUBJECT: Calculating Potential to Emit (PTE) for Emergency Generators

FROM: John S. Seitz, Director
Office of Air Quality Planning and Standards (MD-10)

TO: Director, Air, Pesticides and Toxics
Management Division, Regions I and IV
Director, Air and Waste Management Division,
Region II
Director, Air, Radiation and Toxics Division,
Region III
Director, Air and Radiation Division,
Region V
Director, Air, Pesticides and Toxics Division,
Region VI
Director, Air and Toxics Division,
Regions VII, VIII, IX, and X

The purpose of this guidance is to address the determination of PTE for emergency electrical generators.

Background

In a memorandum dated January 25, 1995, the Environmental Protection Agency (EPA) addressed a number of issues related to the determination of a source's PTE under section 112 and title V of the Clean Air Act (Act). One of the issues discussed in the memorandum was the term "maximum capacity of a stationary source to emit under its physical and operational design," which is part of the definition of "potential to emit." The memorandum clarified that inherent physical limitations, and operational design features which restrict the potential emissions of individual emission units, can be taken into account. This clarification was intended to address facilities for which the theoretical use of equipment is much higher than could ever actually occur in practice. For such facilities, if their physical limitations or operational design features are not taken

into account, the potential emissions could be overestimated and consequently the source owner could be subject to the Act requirements affecting major sources. Although such source owners could in most cases readily accept enforceable limitations restricting the operation to its designed level, EPA believes this administrative requirement for such sources to be unnecessary and burdensome.

On the topic of "physical and operational design," the January 25 memorandum provided a general discussion. In addition, EPA committed to providing technical assistance on the type of inherent physical and operational design features that may be considered acceptable in determining the potential to emit for certain individual small source categories. The EPA is currently conducting category-specific analyses in support of this effort, and hopes as a result of these analyses to generate more general guidance on this issue as well.

The purpose of this memorandum is to address the issue of PTE as it relates specifically to emergency generators. There is a significant level of interest in this source category because there are many thousands of locations for which an emergency generator is the only emitting source. Moreover, based on a review of this source category, there exists a readily identifiable constraint on the operational design of emergency generators. Hence, the EPA believes it would be useful to provide today's guidance before the entire effort is complete.

The policies set forth in this memorandum are intended solely as guidance, do not represent final Agency action, and cannot be relied upon to create any rights enforceable by any party.

Guidance for Emergency Generators

For purposes of today's guidance, an "emergency generator" means a generator whose sole function is to provide back-up power when electric power from the local utility is interrupted. The emission source for such generators is typically a gasoline or diesel-fired engine, but can in some cases include a small gas turbine. Emissions consist primarily of carbon monoxide and nitrogen oxides. Other criteria pollutants, and hazardous air pollutants, are also emitted, but at much lower levels. Emissions occur only during emergency situations (i.e., where electric power from the local utility is interrupted), and for a very short time to perform maintenance checks and operator training.

The EPA believes that generators devoted to emergency uses are clearly constrained in their operation, in the sense that, by definition and design, they are used only during periods where

electric power from public utilities is unavailable. Two factors indicate that this constraint is in fact "inherent." First, while the combined period for such power outages during any one year will vary somewhat, an upper bound can be estimated which would never be expected to be exceeded absent extraordinary circumstances. Second, the duration of these outages are entirely beyond the control of the source, and when they do occur (except in the case of a major catastrophe) rarely last more than a day.

For emergency generators, EPA has determined that a reasonable and realistic "worst-case" estimate of the number of hours that power would be expected to be unavailable from the local utility may be considered in identifying the "maximum capacity" of such generators for the purpose of estimating their PTE. Consequently, EPA does not recommend the use of 8760 hours per year (i.e., full-year operation) for calculating the PTE for emergency generators. Instead, EPA recommends that the potential to emit be determined based upon an estimate of the maximum amount of hours the generator could operate, taking into account (1) the number of hours power would be expected to be unavailable and (2) the number of hours for maintenance activities.

The EPA believes that 500 hours is an appropriate default assumption for estimating the number of hours that an emergency generator could be expected to operate under worst-case conditions. Alternative estimates can be made on a case-by-case basis where justified by the source owner or permitting authority (for example, if historical data on local power outages indicate that a larger or smaller number would be appropriate). Using the 500 hour default assumption, EPA has performed a number of calculations for some typically-sized emergency generators. These calculations indicate that these generators, in and of themselves, rarely emit at major source levels. (Of course, there may be unusual circumstances where these calculations would not be representative, for example where many generators are present that could operate simultaneously).

Cautions

Today's guidance is only meant to address emergency generators as described. Specifically, the guidance does not address: (1) peaking units at electric utilities; (2) generators at industrial facilities that typically operate at low rates, but are not confined to emergency purposes; and (3) any standby generator that is used during time periods when power is available from the utility. This guidance is also not intended to discourage permitting authorities from establishing operational limitations in construction permits when such limitations are deemed appropriate or necessary. Additionally,

this memorandum is not intended to be used as the basis to rescind any such restrictions already in place.

Distribution/Further Information

The Regional Offices should send this memorandum, including the attachment, to States within their jurisdiction. Questions concerning specific issues and cases should be directed to the appropriate Regional Office. Regional Office staff may contact Tim Smith of the Integrated Implementation Group at 919-541-4718.

The document is also available on the technology transfer network (TTN) bulletin board, under "Clean Air Act" - "Title V" - "Policy Guidance Memos". (Readers unfamiliar with this bulletin board may obtain access by calling the TTN help line at 919-541-5384).

Attachments

cc: Air Branch Chief, Region I-X
Regional Air Counsels, Region I-X
Adan Schwartz (2344)
Tim Smith (MD-12)