TECHNICAL SUPPORT DOCUMENT

For

DRAFT/PROPOSED AIR EMISSION PERMIT NO. 11100036-004

This technical support document (TSD) is intended for all parties interested in the draft/proposed 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/proposed permit.

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The permit contains the variance addressing ash testing requirements for waste combustor ash for the existing units. Minn. R. 7007.0801, subp. 2, item E requires air emission permits for waste combustors to contain a schedule for the testing of waste combustor ash as required in part 7035.2910. Minn. R. 7035.2910, subp. 3, requires quarterly samples and an annual composite sample formed from equal portions of the quarterly samples must be analyzed according to Minn. R. 7035.2910, subp. 5. On October 18, 1996, a letter was sent to owners and operators of municipal waste combustors explaining the variance granted by the MPCA. The permit establishes the testing frequency allowed under the 1996 variance and cites the Minn. R. 7035.2910, subp. 3, the variance and Minn. R. 7000.7000 (Minnesota's variance rules). It is current Agency policy to apply this variance testing frequency to new waste combustor units.

1.4. Emissions of the Facility

1.4.1. Emissions Summary

Table 1 presents the limited, controlled potential-to-emit from the existing facility, prior to the addition of the proposed South Unit expansion project as well as prior to mercury and dioxin limits taken in this permit action (-004).

Table 1

Existing Facility Limited, Controlled Potential-to-Emit Summary
(@ 116 tons per day charge capacity for both incinerators combined)

Pollutant	Limited, Controlled Potential to Emit from North and South Existing (tons/year)	Limited, Controlled Potential to Emit from the Existing Unit Aux. Boiler (EU 005) (tons/year)	Cooling To wers ns/year)	Fugitive (roadway – FS 002) (ton/year)	Limited, Controlled Potential to Emit from Total Facility Prior to Expansion (tons/year)	Actual Emissions (tons/year)
Particulate Matter (PM)	9.54	2.73	0.23	0.30	12.8	3.06
Front-half Particulate Matter	13.6	0.68				
Particulate Matter-10 (PM_{10})	10.76	2.73	0.17	0.058	13.72	3.06
Particulate Matter-2.5 ($PM_{2.5}$)	10.76	2.73	0.087	0.017	13.59	
Sulfur Dioxide (SO_2)	40.01	0.22			40.23	16.34
Nitrogen Oxides (NO_x)	186.51	11.47			197.98	45.36
Carbon Monoxide (CO)	22.7	30.12			52.82	9.22

Volatile Organic Compounds (VOCs)	2.4	1.97			4.37	2.21
Lead	.31	1.79E-04			0.31	0.006
MWC Acid Gases	113.92	-			113.92	
Sulfuric Acid Mist	0.0311	-			0.0311	
MWC Organics (total dioxins and furans)	2.43E-05	-			2.43E-05	
Hydrogen Chloride	73.92	-			73.92	
Mercury	.0117	9.32E-05			0.0118	
Cadmium	.0194	3.94E-04			0.0198	
CO2e	18,119	42,775			60890	

Notes:

- North and South Incinerator Units combined total 116 tons per day charge capacity
- MWC acid gases (SO2 + HCl)
- Cooling Tower and Roadway Fugitive emissions are proportioned to 116/200 ratio (of tons per day) from Table 2
- Actual Emissions are as Reported in 2009 Minn. Emission Inventory, only the listed criteria pollutants are recorded in the Minn. emission inventory

Table 2 presents a summary of the limited, controlled potential-to-emit emission rates in tons per year (tpy), after the proposed expansion of the facility. It also includes the uncontrolled potential-to-emit for a number of pollutants. For this calculation, the North Unit and the South Unit each have a 100 ton per day charge capacity. Mercury and MWC organic emission limits, taken in this permit action -004, are reflected in this table.

The "limited" PTE shown in Table 2 represents the maximum emissions which the facility, including pollution control equipment, could emit without violating permit limits (for example, 20 mg/dscm PM). For pollutants that are not affected by permit limits, the limited PTE represents the maximum potential emissions expected if control equipment is operating.

Table 2

After Proposed Facility Expansion Limited, Controlled Potential-to-Emit and Uncontrolled Potential-to-Emit Summary

Pollutant	Limited, Controlled Potential to Emit (South Unit - EU 001) (tons/year)	Limited, Controlled Potential to Emit (North Unit – EU 002) (tons/year)	Limited, Controlled Potential to Emit (Aux. Boiler -EU 005) (tons/year)	Cooling Towers (tons/year)	Fugitive roadway – FS 002) (ton/year)	Limited, Controlled Potential to Emit from Total Facility After Expansion (tons/year)	Uncontrolled Potential to Emit from Total Facility After Expansion (tons/year)

Particulate Matter (PM)	8.2	8.2	2.73	0.4	0.52	20.05	1123.2
Front-half Particulate Matter	6.2	12.6	0.68				
Particulate Matter-10 (PM10)	10.0	10.0	2.73	0.3	0.10	23.13	
Particulate Matter-2.5 (PM2.5)	10.0	10.0	2.73	0.15	0.03	22.91	
Sulfur Dioxide (SO_2)	14.4	36.9	0.22			51.52	154.5
Nitrogen Oxides (NO_x)	171.8	171.8	11.47			355.07	145.6
Carbon Monoxide (CO)	21.0	21.0	30.12			72.12	91.2
Volatile Organic Compounds (VOCs)	2.2	2.2	1.97			6.37	
Lead	0.036	0.29	1.79E-04			0.326	9.50
MWC Acid Gases	21.2	105.4	-			126.6	
Sulfuric Acid Mist	0.0288	0.0288				0.058	
MWC Organics (total dioxins and furans)	2.34E-06	3.60E-06				5.94E-06	
Hydrogen Chloride	6.84	68.44				75.28	285.46
Mercury	7.37E-03	7.37E-03	9.32E-05			0.0148	0.25
Cadmium	3.6E-03	0.018	3.94E-04			0.022	0.486
CO2e	18730	18730	42,775			80236	

Notes:

- North and South Incinerator Units each have a 100 tons per day charge capacity
- MWC acid gases (SO2 + HCl)
- Reflects mercury and dioxin limits taken in this permit action (-004).
- Uncontrolled PTE emission factors taken from AP-42. 1996 AP-42 emission factors were limited in number of pollutants.

MWC Organics (measured as total Dioxins/Furans) [4]	1/1/04-12/31/05	2.34E-06	3.70E-06	-1.36E-06	0.00	---	---	---	0.00
Lead [4]	1/1/04-12/31/05	3.60E-02	3.96E-01	-3.60E-01	0.00	---	---	---	0.00
Mercury [5]	1/1/04-12/31/05	7.37E-03	5.19E-03	2.18E-03	2.18E-03	---	---	---	2.18E-03
HF	1/1/04-12/31/05	5.68E-02	2.73E-02	2.95E-02	2.95E-02	---	---	---	2.95E-02
GHG (CO_2e) [6]	1/1/04-12/31/05	18,730	7,510	11,220	11,220	---	---	---	11,220

Table 4 Continued

	PSD Applicability				
	Total Increases FPA-PA (tpy)	**PSD Significance Level (tpy)**	**Exceeds PSD Significance Level?**	**PSD Reasonable Possibility Level (tpy) [3]**	
PM (total) - State only limit	6.96	25	No	12.5	No
PM_{10}	8.65	15	No	7.5	Yes
$PM_{2.5}$	8.41	10	No	5	Yes
NO_x	31.24	40	No	20	Yes
SO_2	4.84	40	No	20	No
CO	19.99	100	No	50	No
VOC	1.34	40	No	20	No
H_2SO_4	0.01	7	No	3.5	No
MWC Acid Gases (SO_2 and HCl) [4]	0.00	40	No	20	No
MWC Organics (measured as total Dioxins/Furans) [4]	0.00	3.53E-06	No	1.77E-06	No
Lead [4]	0.00	0.6	No	0.3	No
Mercury [5]	2.18E-03	0.1	No	0.05	No

HF	2.95E-02	3	No	1.5	No

Table 4 Footnotes:

[1] Any decreases in emissions were set at zero. Note that decreases in emissions from the South Unit for MWC Acid Gases (SO2 and HCl), MWC Organics (as Dioxin/Furans) and Lead were the result of more stringent emission standards applicable to the unit after the modification.

2 As a worst case scenario for each of these units, the potential to emit was used for the future projected actual, and past actual emissions were not subtracted.

[3] The Reasonable Possibility Level is 50 percent of the PSD Significance Level. For any pollutant above the Reasonable Possibility Level, the facility must maintain a record of this documentation and complete an annual analysis of this project for a period of 10 years following resumption of normal operation.

[4] Decreases in the South Unit FPA-PA emissions for this pollutant are the result of more stringent NSPS Subpart AAAA emission standards applicable to the unit after the modification.

[5] Increased actual Mercury emissions are expected to be less than the 3 lbs/year threshold identified in MPCA's "Guidelines for New and Modified Mercury Air Emissions Sources" (September 2009).

[6] On July 1, 2011 under 40 CFR 51, 52, 70, and 71 the US EPA deferred for a period of three years, greenhouse gas (GHG) permitting requirements for carbon dioxide (CO_2) emissions from biomass-fired and other biogenic sources. Therefore, only fossil fuel GHG emissions are used in the PSD analysis.

1.4.3. Limited, Controlled Potential to Emit Calculations

In Delta is found the Form GI-07, which summarizes the PTE of the Facility as well as the detailed emission calculation spreadsheets and supporting information prepared by the Permittee.

There are several methods that can be used to calculate the emissions from this facility. One method is based on the using the airflows. Another method is based on using the fuel heat input and “f” factor. A third method is to convert the emission factors from a ppm or mg/dscm basis to a pound of pollutant/ton of MSW combusted basis. The calculations for the Facility are based on converting the emission factor or limit basis into a lb/ton emission factor, then multiplying by the tons of waste combusted. The submitted PRRF calculations were reviewed and approved by the Agency.

In general, there were two sets of limited, controlled emission types calculated for this project. The first set of emissions is based on pollutants for which there is a regulatory emission limit. These pollutants include: PM–total, PM-front half, SO2, CO, NOx, HCl, mercury, lead, cadmium, and total dioxin/furan. The basis of the regulatory pollutants is emission limits set in either state or federal rules. The second set of emissions was developed to complete the AERA. These pollutants included individual dioxins and furans, PAHs, HF, H2SO4, and additional metals. Emission factors for the AERA pollutants were developed from a number of sources. These sources include performance tests from the PRRF facility. In addition, additional emission factors were developed from performance tests from similar MSW waste combustion sources. These sources were similar in having carbon injection, a scrubber, and a fabric filter. They were also expected to be similar in waste stream as well as size. One source of emission factors was from performance tests conducted in 2004 at the Olmsted County Waste-to-Energy (OWEF). Additional performance test data was taken from Minneapolis, Huntington, and Stanislaus Covanta MSW waste-to-energy combustor facilities. VOC estimates are based on

major source threshold of 100 tons per year has applied, since 1990, because the MSW units had a capacity greater than 50 tons MSW per day. EPA municipal waste incinerator rules (40 CFR 52.21(b)(1)(i)(a)) have not been amended to reflect this PSD threshold category change. Likewise, MPCA forms have not been amended to reflect this PSD threshold category change.

From the 1990 New Source Review Workshop Manual, the following definitions and concepts are pertinent:

> For the purpose of PSD a stationary source is any building, structure, facility, or installation which emits or may emit any air pollutant subject to regulation under the Clean Air Act (the Act). "Building, structure, facility, or installation" mean all the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties and are under common ownership or control. An emissions unit is any part of a stationary source that emits or the potential to emit any pollutant subject to regulation under the Act. (A.3)
>
> The potential to emit of a stationary source is of primary importance in establishing whether a new or modified source is major. Potential to emit is the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. (A.5)

According to the information from PRRF's 2005 air emission permit amendment, the potential-to-emit NOx emissions exceeded 100 tons per year. In addition, potential-to-emit acid gas (sum of HCl and SO2) emissions were also greater than 100 ton/yr.

In 2010 (prior to this 2011 applicability determination), PRRF sought synthetic minor limits to address the 1990 CAA change. For that request, EPA Region V was consulted. EPA Region V provided that PRRF was to be analyzed in a similar manner as was the recent Pope-Douglas Unit 3 expansion. EPA Region V had previously concluded, for Pope-Douglas, that because the existing facility did have a processing capacity greater than 50 tons per day and did have a PTE of one pollutant in excess of 100 tons/year, Pope/Douglas was a major PSD source, prior to its Unit 3 expansion permit action.

The Pope-Douglas PSD analysis follows. EPA Region V confirmed that Pope-Douglas was a major PSD stationary source prior to its Unit 3 expansion. The 1989 Injunctive Relief Guidance was followed. Pope-Douglas was allowed to place synthetic minor limits on NOx and acid gases. These synthetic minor limits were placed on all of the existing contributing emission units from the, then, entire stationary source. The existing Combustion Units 1 and 2 were given a 95 ton per year NOx emission limit. In addition, Pope/Douglas was required to conduct a PSD Best Available Control Technology (BACT) like analysis for its Unit 3 NOx emissions. It already had a scrubber for acid gas control. Subsequently, a 95 tpy NOx synthetic emission limit was applied to the new Unit 3. It is noted that the actual emissions did not exceed the 100 tpy threshold. A NOx CEMs was used to demonstrate compliance. Moreover, a SO2 CEMs and HCl performance testing was used to demonstrate compliance. It is noted that Pope-Douglas being allowed to take a synthetic minor limit was a unique case-by-case determination. The underlying rational for this decision is that EPA had not

obvious that testing cannot be scheduled on the same day every year and there must be some latitude in arranging performance testing around weekends, holidays, weather events and testing firm schedules. A strict interpretation of 12 months in the Minnesota rule would in fact push back testing each year as the Permittee would have to plan for the test sometime in the 11th month and leave time for potential problems with testing. The federal rule allows 13 months to account for such test scheduling and contingency concerns. The MPCA performance testing staff have considered this issue and decided that since the rule calls for 12 months and not 12.0 months we can assume that there is some leeway on either side of the 12 month deadline. The performance testing staff have, as a general rule, defined 12 months as the period of time 11.5 months to 12.5 months after the previous test. Assuming that the Permittee has no reason or incentive to schedule testing much earlier than required, the permit language says "the test shall be conducted at an interval not to exceed 12.5 months".

3.4.6. Mercury Testing Frequency

For this permit action, there are two provisions that address the frequency of mercury testing: Minn. R. 7011.1270 and Minn. Stat. 116.85. Minn. Stat. § 116.85, subd. 1, provides, in part:

> (b) A facility shall conduct stack testing for mercury at intervals not to exceed three months. . .
>
> (c) After demonstrating that mercury emissions have been below 50 percent of the facility's permitted mercury limit for three consecutive years, as tested under the conditions of paragraph (b), an incinerator facility may choose to conduct stack testing once every three years or according to applicable federal requirements, whichever is more stringent. . .
>
> (d) The provisions of paragraph (c) allowing for less frequent stack testing for mercury apply to a new unit constructed at a facility that has previously met the requirements of paragraph (c), provided that the new unit demonstrates, as tested under the conditions of paragraph (b), that mercury emissions have been below 50 percent of the new unit's permitted mercury limit for one year.
>
> (e) If a test conducted under the provisions of paragraph (c) shows mercury emissions greater than 50 percent of the facility's permitted mercury limit, the facility shall conduct annual mercury stack sampling until emissions are below 50 percent of the facility's permitted mercury limit. Once the facility demonstrates that mercury emissions are again below 50 percent of the facility's permitted mercury limit, the facility may resume testing every three years or according to federal requirements, whichever is more stringent, upon notifying the commissioner.

Minn. Stat. 116.85, subp. B(3) and Minn. R. 7011.1270, subp. C provides, in part, that for a Class C combustor, mercury shall be tested every 3 months. After 3 years of compliance, the testing frequency can be relaxed to every 3 years. PRRF has demonstrated 3 consecutive years of not exceeding 50% of the long-term mercury limit. Hence, EU 002 currently has a relaxed frequency testing schedule of every 3 years.

Because of the proposed expansion, EU 001 is now classified as a Class II. Again, PRRF has demonstrated 3 consecutive years of not exceeding 50% of the long-term mercury limit for the facility. Minn. Stat. 116.85(d) provides, however, that a 3 month testing frequency is now required for South Incinerator Unit (EU 001) for 1 year. If the mercury emissions remain below 50 percent of EU 001's permitted mercury limit of 60 µg/dscm for one year, PRRF may choose to conduct stack testing once every three years or according to applicable federal requirements, whichever is more stringent. This is contingent upon the test results remaining below 50% of the long-term limit. Minn. Stat. 116.85, subp. 1e

It is also noted that there was a December 22, 1997, variance. The 1997 variance allowed the owners and operators of the PRRF to conduct mercury tests every six months. This variance expired with the 2004 Title V permit issuance.

In addition, 40 CFR§ 62.15250(a), allows the facility to relax its testing schedule to once every three years if it demonstrates compliance with its federal limit.

In this permit action (-004), an additional state mercury emission limit of 41 µg/dcsm is added. This limit was proposed, by the facility, upon the completion of the EIS health risk assessment (HHRA). This limit is below the long-term mercury state emission limit. The mercury emission test results were reviewed. From 2003-2011, the individual mercury test results ranged between 3.5 – 151 µg/dcsm. The Facility anticipates the proposed MRF will reduce the overall mercury emissions by removing items containing mercury prior to combustion.

3.5. Operator Training and Certification

Under current Minnesota rules (1998), operators of small municipal waste combustors must obtain and maintain a certification. The operator training and certification requirements are included in Minnesota rules and federal regulations because both the MPCA and EPA recognize the specialized skills required to safely and effectively operate a waste combustor.

Operators of large municipal waste combustors must also obtain and maintain this same certification. EPA recognizes the training and certification program for large municipal waste combustors in Minnesota rules through the approval of Minnesota's 111(d) plan. Because Minnesota has not yet promulgated rules incorporating the emissions guidelines for small municipal waste combustors, EPA has no 111(d) plan for Minnesota that can be approved. Therefore, EPA and the FIP under 40 CFR § 62.15130(a) and 40 CFR § 60.1185(a) do not recognize Minnesota's operator training and certification program.

In a Jan. 24, 2006 memo to the Red Wing incinerator, William MacDowell, of EPA Region V provided, in part, the following to address the issue of Operator Training and Certification Requirements.

"The Small MWC FIP does not include any provision under which U.S. EPA can approve an extension to comply with its operator training and certification requirements. Consequently, we cannot extend the date by which the chief facility operator(s) and shift supervisor(s) must obtain provisional or full operator certification under American Society of Mechanical Engineers' (ASME) standard QRO-1-1994. As of this date, MPCA has not submitted Minnesota's § 111(d) Plan for Small MWC Units. However, the Small MWC Plants in Minnesota, including the Red Wing SWBF, have been subject to the operator training and certification requirements in Minnesota Rules 7011.1240, 7011.1280, 7011.1281, 7011.1282, 7011.1283, and 7011.1284 since May 1998. On August 12, 1998, U.S. EPA approved these rules as part of Minnesota's § 111(d) Plan for Large MWCs. We anticipate that MPCA will submit, and that U.S. EPA will approve, these rules for Minnesota's § 111(d) Plan for Small MWCs.

According to your letter, ASME QRO-1-1994 focuses primarily on boiler operation and the Minnesota training and certification program focuses on combustion practices. We do not have any reason to dispute this statement. Further, we have not attempted to quantify the additional environmental benefit that might result from ASME QRO-1-1994 certification. U.S. EPA reviewed Minnesota's operator training and certification requirements for Class C waste combustors, which is equivalent to an existing Small MWC Unit, as those terms are defined or designated in the Small MWC FIP. We found one substantive difference between the applicable Minnesota rules and the Small MWC FIP: The Minnesota rules required Class C waste combustors to comply with the operator training and certification requirements 6 years before the Small MWC FIP.

The remaining issue is federal enforceability. At this time, U.S. EPA cannot enforce Minnesota Air Rules 7011.1240, 7011.1275, 7011.1280, 7011.1281, 7011.1282, 7011.1283, and 7011.1284 at Small MWC Units because they are not part of the approved Minnesota's § 111(d) Plan for Small MWC Units. However, we have not identified any additional environmental benefit that would result from enforcement of the Small MWC FIP's requirement regarding full ASME certification for each chief facility operator and shift supervisor. Provided that the Red Wing SWBF has complied with the operator training and certification requirements in Minnesota Air Rules 7011.1240, 7011.1275, 7011.1280, 7011.1281, 7011.1282, 7011.1283, and 7011.1284, U.S. EPA believes that enforcement action would not produce any environmental benefit that the Minnesota operator training and certification requirements do not already achieve."

3.6. Permit Table B Requirements

The permit includes a section identified as Table B which contains requirements that call for submittals or MPCA notifications. These requirements are set out separately to allow compliance to be tracked using the MPCA's Delta database system. Not all submittals or MPCA notifications, however, are contained in Table B.

The permit contains numerous reporting requirements. The MPCA staff has attempted to consolidate reporting requirements where possible.

requirements. Using the criteria outlined earlier in this TSD, the following table documents the justification why no additional periodic monitoring is necessary for the current insignificant activities.

Table 11.

Insignificant Activities

Insignificant Activity	General Applicable Emission limit	Discussion
Materials Recovery Facility	PM, variable depending on airflow or process weight rate Opacity ≤ 20% (Minn. R. 7011.0715)	For these units, it is highly unlikely that they could violate the applicable requirement. In addition, these units are inside a building, so testing for PM or opacity is not feasible.
Fuel use: space heaters fueled by natural gas, less than 420,000 Btu/hr (Furnace with heat input of 135,000 Btu/hr)	PM ≤ 0.6 lb/MMBtu, Opacity ≤ 20% with exceptions (Minn. R. 7011.0510)	For this unit, based on the fuels used and EPA published emissions factors, it is highly unlikely that it could violate the applicable requirement. In addition, these types of units are typically operated and vented inside a building, so testing for PM or opacity is not feasible.
Indirect heating equipment with a capacity less than 420,000 Btu/hour, etc.	PM ≤ 0.6 lb/MMBtu Opacity ≤ 20% with exceptions (Minn. R. 7011.0510)	For these units, based on the fuels used and EPA published emissions factors, it is highly unlikely that they could violate the applicable requirements.
Welding equipment	PM, variable depending on airflow Opacity ≤ 20% (Minn. R. 7011.0715)	For these units, based on EPA published emissions factors, it is highly unlikely that they could violate the applicable requirement. In addition, these units are typically operated and vented inside a building, so testing for PM or opacity is not feasible.
Fugitive Emissions from unpaved roads and parking lots	Requirement to take reasonable measures to prevent PM from becoming airborne (Minn. R. 7011.0150)	The Facility has all paved roads and parking lots. The draft/proposed permit does contain a general requirement that this standard must be met. Moreover, the O&M Plan must specifically address fugitive road emissions.
Infrequent use of spray paint equipment for routine housekeeping or	PM, variable depending on airflow or process weight rate	While spray equipment will have the potential to emit particulate matter, these particular activities are those not associated with

The State of Minnesota, through its MPCA, will implement the Mercury TMDL Implementation Plan. The MPCA implementation of the Mercury TMDL Implementation Plan will include continued implementation of the "Guidelines for New and Modified Mercury Air Emission Sources." Under these guidelines, proposed new or modified sources with a permit limit of greater than 3 lb/year or equivalent must install best available controls for mercury. New or modified sources with actual emission increases greater than 3 lb/yr must provide for additional reductions in the state to account for existing sources or alternative mitigation strategies in lieu of in-state air emission reductions..

PRRF is installing carbon injection on the South Unit (EU 001) to control mercury. The North Unit (EU 002) already employs this control for mercury and other pollutants. These controls are identified as the best available controls for mercury from municipal waste combustors.

PRRF has prepared a plan to reduce mercury emissions elsewhere should annual actual mercury emissions increase by greater than 3 lb/yr. A compliance agreement describing the implementation of the plan and timing of actions, including reporting to the MPCA, has been executed separately from this permit.

3.15. MSW Classification

As part of this permit action, the issue arose as to whether the PRRF MRF processed solid waste would be considered as RDF or MSW. The following is a portion of the Jan. 23, 2012 Agency response letter to that issue.

> As you have provided, the Perham Resource Recovery Facility (PRRF) is proposing to add a materials recovery facility (MRF) at its operation. The MRF will consist of hand sorting the waste stream, a trommel, screening of the fines, and magnet removal of ferrous metals prior to combustion. The PRRF has asked whether the addition of the MRF, to their operation, would allow the mixed municipal solid waste stream to be classified as refuse-derived fuel (RDF).
>
> To begin with, Minn. Stat. 116.90 provides the definition for refuse-derived fuel:
>
> > "Refuse-derived fuel" means a product resulting from the processing of mixed municipal solid waste in a manner that reduces the quantity of noncombustible material present in the waste, reduces the size of waste components through shredding or other mechanical means, and produces a fuel suitable for combustion in existing or new solid fuel fired boilers.
>
> The Minnesota Pollution Control Agency (PCA) interprets this definition as requiring that the mixed municipal solid waste must undergo both a sorting to reduce the quantity of noncombustible material as well as uniform waste size reduction in order to be classified as RDF. Either sorting to reduce the quantity of noncombustible material or uniform size reduction alone does not suffice to meet the RDF classification.

maximum
1-month average for lead. The one-month high concentration for lead is a worst case estimate of the rolling 3-month averaging period.

	Non-facility Background	Total Facility Contribution at PTE	Total	Percent Expanded Facility Contributes to Total
Existing Potential to Emit (60 µg/dscm)	1.7	0.3	2.0	14%
Post-expansion Potential to emit (41 µg/dscm)	1.7	0.2	1.9	11%
Potential change due to expansion				-3%
Existing actual (15 µg/dscm per 2011 stack test)	1.7	0.1	1.8	3%