

Midwest Environmental
A D V O C A T E S
pro bono publico

**Kickapoo Valley Stewardship Alliance, Northern Thunder,
Sierra Club- John Muir Chapter, Sierra Club Midwest Region,
Wisconsin Environmental Decade, and
Wisconsin Public Interest Research Group**

June 20, 2002

Jeff Johnson
Wisconsin Department of Natural Resources
West Central Region Headquarters
1300 Clairemont
P.O. Box 4001
Eau Claire, WI 54702-4001

**RE: Comments on Draft Title V permit 632022820-P01 for Xcel's French
Island Incinerator**

Dear Mr. Johnson:

Thank you for the opportunity to provide comments on the draft Title V permit for Xcel's French Island Incinerator. Midwest Environmental Advocates (MEA) is a non-profit environmental law center that provides legal and technical assistance to environmental organizations. MEA is commenting on the proposed permit for the French Island Incinerator on behalf of the Kickapoo Valley Stewardship Alliance, Northern Thunder, Sierra Club- John Muir Chapter, Sierra Club Midwest Region, Wisconsin Environmental Decade, and Wisconsin Public Interest Research Group.

I. DEFICIENCIES IN DRAFT PERMIT AND PRELIMINARY DETERMINATION

A. Control Technology

The Clean Air Act sets emission limits for large incinerators. The basis for these emission limits is specific control technology. The French Island facility is not using, nor does the permit require, the control technology that serves as the basis for the emission limits established by 40 CFR Part 60. As such, the French Island facility is currently, and will continue to be, out of compliance with the federal Clean Air Act rules for large incinerators.

The current air pollution control equipment at the facility consists of multi-clone ash collection devices followed by fluidized electrified bed electro scrubbers including a pulsed baghouse to remove ash from the gravel bed media.¹ Xcel is replacing this equipment with “two dry lime injection scrubbers and pulse jet baghouses . . .”² However, the guidelines for existing MWC’s require the installation of the following technology: selective noncatalytic reduction, spray dryer, electrostatic precipitator, carbon injection, and fabric filter.³

➤ Requested Action:

- Require Xcel to install all of the control technology that serves as the basis for the federal emission limits for large municipal waste incinerators.
- Include a compliance schedule in this Title V permit that requires installation of specific control technology within a fixed number of months.
- Prohibit the incinerator from burning RDF until all control technology is installed and functioning.

B. Railroad Ties

Since 1992, the French Island Incinerator has been relying on old railroad ties for a significant portion of its fuel supply. Today these ties represent roughly 25% of the fuel base.⁴ This can pose several potential health impacts based upon the type of ties being burned. Railroad ties are treated with at least one of three compounds: Creosote, Chromium Copper Arsenate (CCA), and Pentachlorophenol (Penta).

It is very difficult to track the specific sources of railroad ties and keep out CCA or Penta treated ties. The basic waste stream for ties is complex because there is no record keeping

¹ Preliminary Determination for French Island at p3.

² Preliminary Determination for French Island at p3.

³ 40 CFR 60 Table 3.

⁴ Reid Magney, Burning of Used Railroad Crossties at Xcel Plant Spawns Pollution Questions, LA CROSSE COUNTY TRIB., § A, at 1 (Feb. 17, 2002).

for individual ties. They are pulled up based on wear and tear and shipped to suppliers. They come from different companies and different parts of the US and Canada.

In Canada they are much more concerned about the combustion of crossties. They just assume that every tie was double treated with both Penta and Creosote and proceed accordingly, which means landfilling, not burning them.⁵ The head of Environment Canada's Industrial Contaminants Section asserts that many of the ties were double treated during the past half century and the potential release of harmful chemicals is risky enough to avoid incineration altogether.⁶

Although no comprehensive study has been done, there are many complaints about medical problems in the residents on French Island. These were described during the public hearing on the draft Title V permit on June 13, 2002. The ties are now kept on a lined platform at RailSystems, but this was not always the case. French Island residents, who mostly rely on well water, worry about potential contamination to the water supply after years of creosote leaching into their soil and groundwater. Well testing was done a few years ago at three sites: the well at the Railsystems yard, the well at the nearby daycare center for children, and the well at the home of an island resident. The well at the Railsystems facility showed heightened levels of metals and is considered unsafe for drinking.

In other areas of the country, creosote contaminated soil has led to severe health problems and declarations of Superfund sites. For example, Kopper's current and former plant locations have been declared EPA Superfund sites and both creosote and Penta contamination have been found.⁷

The draft permit allows the facility to burn creosote-treated ties. Creosote-treated ties are not currently categorized as hazardous waste, despite the fact that they contain hazardous, cancer-causing chemicals. The Agency for Toxic Substances and Disease Registry (ATSDR) categorizes creosote as a possible carcinogen leading to lymphoma, cancer, and tumors. The dust from creosote can get in the eyes and cause retinal scarring.⁸ Despite these potential adverse health impacts, the draft permit allows the incinerator to burn creosote treated ties.

Penta is a chlorinated pesticide. Burning it creates many new chemicals including dioxin. In fact, the French Island facility has created high amounts of dioxin when burning wood waste. A likely source of this was the combustion of Penta-treated wood. In a July 14, 1997 letter from Northern States Power (now Xcel) to the Wisconsin Department of Natural Resources regarding how the facility was resolving its Notice of Violation for dioxin, the company outlined various experiments it was conducting to discover the source of the high dioxin emissions. NSP stated that it had stopped burning crushed railroad ties in an effort to control dioxin precursors. In the same letter, NSP stated that when the facility conducted a

⁵ Id.

⁶ Id. Barry Munson the lead regulator in Environment Canada for all treated wood issues firmly asserted, "Up here, municipal incinerators do not burn treated wood."

⁷ Reid Magney, Other Wood not Safe for Incinerator Fuel, LA CROSSE COUNTY TRIB. (Feb. 17? 2002).

⁸ ATSDR, ToxFAQs: Creosote, U.S. Department of Health and Human Services, Public Health Service. (Feb. 1999) available at <http://www.atsdr.cdc.gov/toxfaq.html>.

test burn of 100% wood waste at 125,000 lbs/hr of steam, they were still in non-compliance with the dioxin limit in their permit. Yet the draft permit fails to establish an emission limit for dioxin when the facility is burning 100% wood waste.

Moreover, the draft permit fails to prohibit the combustion of Penta-treated ties. Instead, it merely requires Xcel to collect samples of the shredded ties once a month to determine whether or not they contain Penta.⁹ If the crossties are found to contain Penta, Xcel is required to notify the DNR within three days.¹⁰ The permit fails to require anything more, such as a requirement to stop burning the railroad ties at the facility when Penta is discovered. Under this permit, when Xcel tests and discovers they have Penta in their fuel, they can continue burning it. The permit should specifically and clearly prohibit the burning of Penta-treated wood.

CCA treated ties are of concern because burning CCA leads to releases of heavy metals, such as chromium, copper and arsenic, all of which can be toxic to humans. Additionally, copper can be especially detrimental to fish and benthic communities that are sensitive to its effects.¹¹ The Title V permit prohibits burning ties treated with arsenic compounds,¹² but the testing procedures for arsenic are minimal and will not demonstrate compliance with the permit terms. This minimal testing procedure violates Title V's implementing regulations. It appears that the facility will only test for arsenic in the fuel twice during the life of the permit: in the beginning there will be an initial test and then sometime within the next four years a second test will follow.¹³ This is not enough to determine compliance with the prohibition on burning CCA-treated ties.

Moreover, the permit fails to set an emission limit for arsenic.

⁹ Page 82 of the Draft Permit. Reporting and Recordkeeping Requirement #18.

¹⁰ Id.

¹¹ Conversation between Jessica Owley, MEA, and Henry Lowe, epidemiologist from the Wisconsin Public Health Department, in June 2002.

¹² Draft Permit I.D.1.a.(19).

¹³ At I.D.1.a.(20), the Draft Permit states:

(20) Within 180 days after the issuance of this permit or the date of final compliance, which ever comes first, the owner or operator shall conduct an initial performance test for arsenic emissions for boiler B21. B20 shall be tested within 180 days of startup. The date of final compliance, as defined in 40 CFR 62.14108, is when the facility incorporates all process changes or completes retrofit construction as designed in the final control plan and connects the air pollution control equipment or process changes with the affected facility identified in the final control plan such that if the affected facility is brought on line, all necessary process changes or air pollution control equipment are operating fully. The permittee shall also conduct a performance test for arsenic emissions at least 4 years after the date of the initial performance test, but no later than the expiration date of this permit, for both boilers. The EPA Reference Method 0012 for arsenic shall be used. During the month of each scheduled arsenic performance test, the permittee shall collect samples of wood, railroad ties and RDF fed to the combustors four times, a minimum of 5 days apart. The samples shall be composited and the arsenic content shall be determined. [s. 285.65(10), Wis. Stats.]

Because of the inadequacies in monitoring and testing, the DNR will be unable to determine whether the French Island Incinerator is only burning creosote-treated crossties or ties that were treated with CAA or Penta. Once the ties are shredded, they look nearly identical. If Penta or CCA treated ties are combusted in the incinerator, heavy metals and toxic chemicals will be released because the equipment at French Island is not designed to destroy or capture metals and toxic chemicals that result when CAA or Penta is burned.¹⁴

➤ **Requested Action:**

- The DNR should follow Canada and prohibit the combustion of railroad ties at this facility.
- If allowed to burn railroad ties, the permit should specifically and clearly prohibit the burning of Penta-treated wood.
- The permit must be amended to include emission limits for dioxin and arsenic when burning 100% wood waste. BACT for dioxin should be set at the federal emission limit for large incinerators.
- The permit should require daily grab samples and testing for arsenic and Penta-treated wood.
- The permit should only allow Xcel to burn railroad ties that Xcel can demonstrate came from companies that provide a data log showing the history of the wood and the chemicals with which it was treated.

C. Demolition Wood Waste

Demolition wood waste sent to the dump gets rounded up and sent to French Island. Despite sorting of the wood, some treated wood still gets sent to the incinerator. The permit allows for up to 5% of the wood combusted to be stained, treated or laminated.¹⁵ Woods of this type emit toxic substances when burned and could pose a significant impact on public health.

➤ **Requested Action:**

- Eliminate the 5% allowance for stained, treated or laminated wood.

D. Hazardous Air Pollutants

Since the DNR last issued a permit for the incinerator in 1994, the facility has periodically been out of compliance with state emissions limits for carbon monoxide and some of the hazardous pollutants.¹⁶ These hazardous pollutants include (but may not be limited to) dioxin, arsenic and hydrogen chloride.¹⁷ In many situations, these emission limits were set before October 1988, giving the company plenty of time and notice to come into compliance with the state regulations. Yet, the company has failed to meet the limits on many occasions.

¹⁴ Reid Magney, Other Wood not Safe for Incinerator Fuel, LA CROSSE COUNTY TRIB. (Feb. 17? 2002).

¹⁵ Page 81 of the Draft Permit. Reporting and Recordkeeping Requirement #13.

¹⁶ Draft Permit at p3.

¹⁷ Id.

Chemicals emitted by incinerators have significant potential to harm life. The following is a list of the potential health impacts and regulatory concerns about the chemicals that the French Island incinerator is emitting:

1. Dioxin

One of the chief concerns with any waste incinerator is the release of chlorinated dibenzo-p-dioxins (dioxins). Combustion of chlorine and organic material together leads to dioxin emissions. Living near MSW incinerators is one of the chief routes of exposure to dioxins.¹⁸ When released into the air, some dioxins may be transported long distances, even around the globe, making the potential impacts from this incinerator far-reaching.¹⁹ Dioxin concentrations tend to bioaccumulate, meaning that they build up in the food chain, resulting in measurable levels in animals.

There are many possible health effects from exposure to dioxin. The Department of Health and Human Services has determined that dioxins may “reasonably be anticipated to cause cancer.”²⁰ The World Health Organization has determined that dioxin is a human carcinogen.²¹ The most common non-carcinogenic effect is chloracne, a severe skin disease with acne-like lesions that occur mainly on the upper face and body.²² Dioxins can also cause rashes, discoloration, excessive body hair, liver damage, alterations in glucose metabolism, and subtle changes in hormone levels.²³ Animal testing has shown that dioxins can cause weight loss, liver damage, endocrine disruption, weakening of the immune system, reproductive damage, and birth defects.²⁴

The French Island incinerator is a significant source of dioxin. The EPA recently released their Toxic Release Inventory for 2000 showing that nearly half of the dioxins in the state are from the French Island Incinerator, which released 28 grams out of the 61.9 grams of the total statewide release.²⁵ Moreover, since 1995, the French Island Incinerator has been out of compliance with state emissions limits on dioxin,²⁶ and since December 19, 2000, the incinerator has been out of compliance with federal emission limits for dioxin.

¹⁸ Agency for Toxic Substances and Disease Registry (ATSDR) ToxFAQs: Chlorinated Dibenzo-p-Dioxins (CDDs), U.S. Department of Health and Human Services, Public Health Service. (Feb. 1999) *available at* <http://www.atsdr.cdc.gov/toxfaq.html>.

¹⁹ Id.; see also North American Commission for Environmental Cooperation. Study Links Dioxin Pollution to North American Sources. Oct. 3, 2000 *available at* www.cec.org/news/announce/data.cfm?varlan=english&vardate=60&unique_no=291; Philip J. Hilts, Dioxin in Arctic Circle Is Traced to Sources Far to the South, N.Y. TIMES § Science, (Oct.17, 2000).

²⁰ Id.

²¹ Id.

²² ATSDR dioxin, supra.

²³ Id.

²⁴ Id.

²⁵ EPA TRI data charts.

²⁶ DNR documents on compliance from 1995 to present.

The draft permit uses inhalation tests as a basis for determining not to regulate dioxin when burning 100% wood waste.²⁷ There are numerous problems with relying solely on inhalation tests. They do not take into account multiple routes of exposure, impacts on children or the elderly or the possibility of synergistic effects as dioxins interact with other chemicals. The inhalation procedure cited in the permit is especially troublesome because the DNR's residential monitoring site is not in the area of highest impact. The DNR must give considerable weight to the significantly higher risk posed by ingestion due to the fact that as much as ninety-five percent of dioxin exposure comes from dietary sources.²⁸ This includes calculating maximum risk based on an exposure scenario where individuals obtain 100% of their vegetables, milk and beef from a subsistence farm as well as including other exposure pathways such as infant breast milk consumption, child soil ingestion, and soil dermal contact.²⁹

➤ **Requested Action:**

- Work with the Department of Health to conduct a more comprehensive risk assessment that looks beyond risk due to inhalation and assess all the routes of exposure.
- Require stack testing for dioxin instead of allowing the facility to use Carbon Dioxide as a proxy to show compliance with the dioxin emission limit when burning RDF.
- Require stack testing for dioxin once every six months in order to assure the public and regulators that the facility is in compliance.
- Require a dioxin emission limit when burning only wood waste. Use the federal emission limits for large incinerators as BACT for dioxin when burning wood waste alone.

2. Formaldehyde

Formaldehyde breaks down into formic acid and carbon monoxide. Inhaling formaldehyde can cause irritation of the eyes, nose, throat and skin. Some studies show that exposure to formaldehyde can lead to cancer.³⁰ Only 25% of the counties in the U.S. have higher formaldehyde emissions than La Crosse County.³¹

Formaldehyde emissions by the facility must be controlled by the Best Available Control Technology (BACT). This is an emission limit "based on the maximum degree of

²⁷ Preliminary Determination at p13.

²⁸ D. Winters, et.al. A Study of the Mass Balance of Dioxins and Furans in Lactating Cows in Background Conditions, US EPA 4 6: 534-37 (2000).

²⁹ M. Lorber, et. al. A Screening Level Risk Assessment of the Indirect Impacts From the Columbus Waste to Energy Facility in Columbus, Ohio. SOLID WASTE MGMT.: THERMAL TREATMENT & WASTE-TO-ENERGY TECHNOLOGIES, VIP-53. 262-78 (1996).

³⁰ ATSDR for Formaldehyde

³¹ 1996 EPA National Air Toxic Data *available at* HYPERLINK

<http://www.epa.gov/ttn/atw/nata/natsalim2.html> www.epa.gov/ttn/atw/nata/natsalim2.html (Oct. 2001 version)

reduction practically achievable as specified by the department on an individual case-by-case basis taking into account energy, economic and environmental impacts and other costs related to the source.” Ch. NR 445.02(4). The draft permit uses CO as a stand-in for regulating the levels of Formaldehyde. Because CO is a clear indicator of combustion efficiency, this might at first appear to be a sensible choice, but there is no information in the Preliminary Determination or draft permit that indicates what levels of formaldehyde will be released. This interferes with the public’s right to know which pollutants they are being exposed to and at what quantity. When Midwest Environmental Advocates specifically asked the DNR about formaldehyde emissions levels, the DNR’s answer was vague. According to the permit drafter, formaldehyde can not easily be calculated based on CO emissions.³² Given this admission, the DNR should not use CO as an indicator for emissions of this pollutant.

The DNR proposes BACT for Formaldehyde to be the limitation of CO emissions to 600 ppm on an hourly average when burning wood only.³³ The BACT analysis is not based on current information, but on past submissions from the early 1990s. BACT must be set based on the “maximum degree of reduction practically achievable,” and it is unreasonable to use submissions that are a decade old to determine the maximum degree of reduction that this facility could achieve.

➤ **Requested Action:**

- Conduct a BACT analysis based on current data and technology.
- At a minimum, if CO emissions are used as BACT, then require the facility to limit emissions of CO to 100ppmv.

3. Benzene

Benzene evaporates quickly and is highly flammable.³⁴ It is a component of acid rain, but does not build up in plants or animals. Breathing high levels of benzene can cause dizziness, drowsiness, rapid heart rates, headaches and many other problems that can result in death.³⁵ Similar effects result from eating food or drinking water with high benzene levels. A known human carcinogen, long-term exposure can damage bone marrow and cause anemia and even leukemia.³⁶ In women, exposure can cause irregular menstrual periods and a decrease in ovary size.³⁷

This facility is required by Ch. NR 445 to meet the Lowest Achievable Emission Rate (LAER) for benzene. This means that the DNR must create a permit limit for benzene that reflects the more stringent of the following:

- (a) The most stringent emission limitation for the hazardous air contaminant which is contained in the air pollution regulatory program of

³² Johnson e-mail to MEA on June 10, 2002 responding to questions about the draft permit.

³³ Draft Permit I.A.14.

³⁴ ATSDR for Benzene.

³⁵ Id.

³⁶ Id.

³⁷ Id.

any state for this class or category of source, unless an applicant for a permit demonstrates that this limitation is not achievable.

(b) The most stringent emission limitation for the hazardous air contaminant which is achievable in practice by the class or category of source.

Ch. NR 445.01(8)(a)-(b) (emphasis added).

The DNR proposes LAER for Benzene to be the limitation of CO emissions to 600 ppm on an hourly average when burning wood only.³⁸ This LAER is outdated and unreasonable. It was established based on a facility report that is 13 years old. The DNR must review current data and other states' programs to determine LAER. At a minimum, if LAER is to be based on CO emissions, it should be established by following the federal emission limit for large incinerators. The facility has the burden of proving that this emission limit is not achievable.

➤ **Requested Action:**

- Amend permit to based on a LAER analysis that reviews current data and the most stringent restrictions of any state program.
- In the alternative, establish LAER for this facility based on CO emissions limited to 100ppmv.

4. Arsenic

Arsenic releases can result from the incineration of several compounds including CCA-treated wood. Many arsenic compounds can dissolve in water where they accumulate in fish and shellfish.³⁹ Breathing in arsenic can give you a sore throat and irritated lungs.⁴⁰ Ingesting high levels of arsenic can result in death.⁴¹ Lower levels can cause nausea and vomiting, abnormal hearth rhythms and damage to blood vessels among other things.⁴² Exposure over time can lead to a darkening of the skin and the development of corns or warts.⁴³ Arsenic causes birth defects in some animals.⁴⁴ Only 25% of the counties in the US have higher arsenic emissions than La Crosse.⁴⁵

The French Island Incinerator in the past has been out of compliance for arsenic and had to get a variance from the DNR. The Preliminary Determination states that BACT for arsenic is

³⁸ Draft Permit I.A.14.

³⁹ ATSDR for Arsenic

⁴⁰ Id.

⁴¹ Id.

⁴² Id.

⁴³ Id.

⁴⁴ Id.

⁴⁵ 1996 EPA National Air Toxic Data *available at* [HYPERLINK](#)

<http://www.epa.gov/ttn/atw/nata/natsalim2.html> www.epa.gov/ttn/atw/nata/natsalim2.html (Oct. 2001 version)

going to be a PM limit. Yet, the draft permit fails to include any restrictions on arsenic emissions. The Preliminary Determination is inconsistent with the Draft Permit.

Moreover, Xcel only has to monitor arsenic levels in fuel twice during the life of the permit.⁴⁶

➤ **Requested Action:**

- Require the facility to meet an emission limit for arsenic during all hours of operation.
- Conduct a BACT analysis based on recent stack test data representative of current operating conditions.

5. Beryllium

Beryllium is one of the many pollutants regulated by federal emissions requirements for incinerators. Inhalation of beryllium emissions can be harmful to human health.⁴⁷ High levels can cause lung damage and a disease that resembles pneumonia.⁴⁸ Some people are especially sensitive and can develop inflammatory reactions to low levels.⁴⁹ Certain Beryllium compounds may reasonably be anticipated to be carcinogens based upon laboratory studies. Only 25% of the counties in the US have higher beryllium emissions than La Crosse.⁵⁰

6. Barium

Barium can affect humans and the environment in multiple ways. If dissolved in water harmful health effects can result. Barium can also contaminate the soil. If ingested via contaminated food or water, barium can cause breathing difficulties, increases in blood pressure, muscle and organ damage and changes in heart rhythm.⁵¹ It has not been classified as carcinogenic, but this is largely due to lack of testing.⁵² There is also no clear procedure for determining whether or not someone has been exposed to barium.⁵³ The only federal standards for barium involve workers who come in direct contact with the substance regularly.⁵⁴

7. Cadmium

⁴⁶ Draft Permit at I.D.1.a.20.

⁴⁷ ATSDR for Beryllium.

⁴⁸ Id.

⁴⁹ Id.

⁵⁰ 1996 EPA National Air Toxic Data *available at* [HYPERLINK](#)

<http://www.epa.gov/ttn/atw/nata/natsalim2.html> www.epa.gov/ttn/atw/nata/natsalim2.html (Oct. 2001 version)

⁵¹ ATSDR for Barium

⁵² Id.

⁵³ Id.

⁵⁴ Id.

Cadmium dissolves in water, but does not break down in the environment. It merely changes form. Fish, plants and animals take up cadmium from the environment. It stays in the body a long time and can build up from many years of exposure to low levels.⁵⁵ Breathing high levels of cadmium severely damages the lungs and can cause death.⁵⁶ Eating food or drinking water with cadmium severely irritates the stomach leading to vomiting and diarrhea. Long-term exposure can cause kidney disease, lung damage and fragile bones.⁵⁷ Only 10% of the counties in the US have higher cadmium emissions than La Crosse.⁵⁸

E. Fly Ash

The ash from the incinerator is landfilled at a special section of the La Crosse County landfill known as the monofill.⁵⁹ With new technology leading to cleaner smoke stack emissions, the ash is likely to become more toxic. The leachate from the landfill is tested every other year for the presence of dioxins.⁶⁰

However, the Title V permit should require testing of the ash before it is sent to the landfill, and there are fugitive emissions of the ash that need to be controlled by this permit. When Midwest Environmental Advocates visited the facility in 2000, Melissa Scanlan witnessed ash blowing out of the facility in the area where it is deposited into trucks. Residents of French Island have complained about ash falling out on their cars, lawn furniture, and homes.

➤ Requested Action:

- Amend the Title V permit to require testing of the ash prior to sending it to the landfill.
- Work with the Department of Health to test the ash that is falling onto neighboring properties.

F. Compliance Certification

The French Island Incinerator has a history of noncompliance with multiple emissions requirements.⁶¹ There seems to be an inherent contradiction where the permit admits that

⁵⁵ ATSDR for Cadmium.

⁵⁶ Id.

⁵⁷ Id.

⁵⁸ 1996 EPA National Air Toxic Data *available at* HYPERLINK <http://www.epa.gov/ttn/atw/nata/natsalim2.html> www.epa.gov/ttn/atw/nata/natsalim2.html (Oct. 2001 version)

⁵⁹ Reid Magney, Ash – NSP’s Incinerator Byproduct – Has Recycling Potential, LA CROSSE COUNTY TRIB. §A at 1 (Aug 30, 1999).

⁶⁰ Id.

⁶¹ Preliminary Determination at p3 states: “Since these permits were issued, the facility has periodically been out of compliance with emission limitations for carbon monoxide and some of the hazardous pollutants, such as hydrogen chloride and arsenic.”

the facility has been out of compliance with air quality standards, but then states that the facility will meet the standards.⁶²

Additionally, federal law states that when facilities are not in compliance, the permit should lay out a clear schedule for bringing the facility into compliance with precise deadlines, goals and ways to ensure that the facility is meeting its goals and deadlines.⁶³ This permit does not appear to contain any such language. The permit should be amended to include specific information, requirements and compliance schedules for those pollutants that have been out of compliance in the past.

Moreover, for the most part, the permit only calls for annual testing.⁶⁴ The permit also lays out alternative testing procedures for most of the pollutants. These alternative procedures allow the facility to monitor the carbon dioxide emissions instead of actual emissions for cadmium, lead, mercury, sulfur dioxide, hydrogen chloride, nitrogen oxides, and dioxin. Although 40 CFR Part 60 allows a facility to request the use of carbon dioxide, it does not require an agency to grant that request.

Given the history of non-compliance by this facility and the federal requirement that the facility provide an Annual Compliance Certification,⁶⁵ the DNR should not allow Xcel to use carbon dioxide as a proxy to show compliance. According to Title V requirements, Xcel must submit a statement every year that gives its compliance status with respect to each permit term. The facility will not be able to adequately certify compliance if they are only testing carbon dioxide emissions to determine compliance for seven different pollutants.

➤ **REQUESTED ACTION:**

- Given the history of non-compliance by this facility, the permit should require Xcel to use stack tests for specific pollutants rather than rely on measurements of carbon dioxide.
- Amend the permit by removing all references to allowing the facility to use carbon dioxide tests to show compliance with other pollutants.

G. Model Reliance

⁶² Preliminary Determination at p11 states: “In addition, emissions, based on AP42 average emission factors, of these hazardous air pollutants are below the respective table values. The controlled emissions of these compounds are expected to remain below table values. The permit will not include emission limits for these compounds.” So despite the fact that the facility has a record of exceeding these emission limits, this leads one to believe that they will not be specifically regulated. However, to confuse matters further, Part I of the Permit does include some standards for regulating mercury and hydrogen chloride.

⁶³ The Earth Day Coalition in Cooperation with the U.S. Env'tl. Protection Agency, Training Manual for Reviewing Title V Permits, 13 (June 24, 2000).

⁶⁴ Part I of the Draft Permit lays out the emissions requirements for all of the regulated emissions. It describes annual testing requirements for nearly all of the pollutants including dioxin, particulate matter, cadmium, lead, mercury and hydrogen chloride.

⁶⁵ 40 CFR 70.6(c)(5)(iii) also see 40 CFR 70.5(d)

There are several places where the permit relies on modeling. According to the DNR, some pollutants are only required to pass modeling parameters.⁶⁶ Modeling gives a picture of how the plant will operate under future conditions. It can provide a picture of whether or not pollution prevention technologies are likely to be effective, but models are never a guarantee. Instead of stating what models show, the permit should firmly state allowable emission levels, how those levels are going to be met, and how the facility will monitor the emissions. Just because the models show that a certain technology if used correctly is likely to give a certain result, does not mean that it is the only thing that Xcel needs to do. Given the history of non-compliance at this facility, the DNR must require more to assure the community that this facility is meeting all federal and state laws.

H. Start-up, Shut down Exception

The draft permit does not require the incinerator to follow the emissions guidelines during periods of start-up, shut-down, and malfunction. Although federal law allows for up to three hours of noncompliance for each instance of start-up, shutdown or malfunction, the start-up process at French Island only takes an hour and fifteen minutes and the shutdown process takes less than an hour.⁶⁷ The DNR should define the start-up and shut down periods more precisely to reflect reality at this facility and reduce the amount of time that the facility can be out of compliance with the federal emission limits.

Moreover, although the facility is exempt from federal emission limits during these periods, the facility should be required to follow state emission limits.

➤ **Requested Action:**

- Use state authority to define start-up, shut down and malfunction more narrowly.
- Create emission limits under state law that apply during periods of start up, shut down and malfunction.

I. Reliance on Old Permits

One of the driving forces behind permits is supposed to be a push to reduce emissions over time. When burning wood only, this permit does not specifically require any reductions on previous pollution requirements for many of the chemicals. Instead, the permit uses calculations and levels from previous permits (usually 92-POY-146).⁶⁸ Significantly, the draft permit is weaker than past permits in that it fails to require the facility to meet dioxin or arsenic emission limits when burning 100% wood waste.

⁶⁶ Personal Communication from DNR representative Jeff Johnson on June 10,2002.

⁶⁷ Reid Magney, Plant Complies with State Permit Levels, LA CROSSE COUNTY TRIB. §A at 7 (Aug 29, 1999).

⁶⁸ For example: Page 9 of the draft permit contains the following statements: The limitation shall be 22.0 pounds per hour of SO₂, adopted from permit 92-POY-146. The limitation shall be 91.0 pounds per hour of NO_x, adopted from permit 92-POY-146. The limitation shall be 0.29 pounds per hour of lead, adopted from permit 92-POY-146.

J. Total Pollutants from the Entire Facility

When comparing the table on page seven of the Preliminary Determination to the table on page 17 and 18 showing total emissions for the facility, it appears that emissions for sulfur dioxide and PM are higher than that allowed by federal law. For example, the table shows that emissions of PM from Boiler 20 are 16.04 TPY when they should only be 13.98 TPY. For the same boiler, emissions of sulfur dioxide will be 41.8 TPY when they should only be 39.94 TPY. The situation for Boiler 21 is the same.

The Title V regulations require permits to contain “emission limitations and standards . . . that assure compliance with all applicable requirements at the time of permit issuance.” 40 CFR 70.6(a)(1). This draft permit appears to fail to comply with this provision when estimates of emissions are higher than those allowed by federal law.

II. PUBLIC PARTICIPATION CONCERNS

A. Communication with the community on French Island

French Island is a small community. This easily defined group should have received information about the draft permit and a notice of the public hearing. This community is directly affected by the facility and has a vested interest in the process. Although not required by law, at the very least, the DNR should have made the effort to contact the local politicians on the Campbell Town Board.

B. Communication with Midwest Environmental Advocates

We commend the permit drafter for his efforts to respond to questions by Midwest Environmental Advocates about the permit.

We are, however, concerned that we did not receive all of the relevant materials. It appears that the DNR did not send the entire draft permit when Midwest Environmental Advocates requested it. In email correspondence with the EPA, the staff person made reference to a Part II of the permit. MEA never received Part II of the draft permit. If there is a Part II of the draft permit, please explain why the DNR did not send it to MEA.

C. Clarity for the General Public

When Congress amended the Clean Air Act in 1990, it created the Title V permitting program.⁶⁹ A central purpose of the program is to improve compliance with existing regulations. Before this requirement, the public often had trouble knowing whether sources

⁶⁹ The Earth Day Coalition in Cooperation with the U.S. Env'tl. Protection Agency, Training Manual for Reviewing Title V Permits, (June 24, 2000).

were obeying regulations. Title V permits are supposed to reduce confusion by consolidating all facility emissions requirements in one place in an accessible format. To meet these goals, a permit must first and foremost be understandable to the general public. The draft permit and preliminary determination are not very accessible. It is eighty-eight pages long and contains multiple lists of emissions requirements that appear at times to contradict, it uses different units of measurement, and it fails to calculate total emissions for the entire facility.

One example of the lack of clarity in these documents is that the permit defines actual emissions as “the total emissions generated by the emission sources identified below over the specified time period taking into account any reductions made by a control device or technique.”⁷⁰ That description makes it sound like those are the emissions that we should expect from the facility after control technologies are in place. However, the actual emissions do not match regulated emissions levels. In fact, the actual emissions are based off data obtained during past operation.⁷¹

Another example is that NR 445 limits for benzene, dioxin and formaldehyde are given in lbs/yr, yet the estimate of emissions in the Preliminary Determination are not given in these units, but in TPY or lbs/hr.

III. UNANSWERED QUESTIONS IN THE PERMIT DOCUMENTS

A. Table I describes the characteristics of fuels burned at the French Island Facility. It describes fuels based upon sulfur ash and moisture content. There is no information in the permit, however, listing parameters for these elements. There do not appear to be any rules about the amount of allowable sulfur for example, only limits on the emissions of sulfur. According to Jeff Johnson of the DNR, there are no sulfur content standards for the fuel itself. There are only emissions limits. When the incinerator is burning RDF, sulfur levels must be at or below 29ppmv.⁷² During the combustion of wood waste each boiler is restricted to 22.0 lb/hr.⁷³ The burning of fuel oil need only adhere to an emissions limitation of 541.7lb/hr.⁷⁴ Under this draft permit, sulfur emissions could legally reach an alarming 1127.4 lb/hr from the facility.⁷⁵

- **Why is the DNR allowing such high emissions of Sulfur Dioxide?**

⁷⁰ Preliminary Determination at p15..

⁷¹ Personal Communication from DNR representative Jeff Johnson on June 10,2002.

⁷² 40 CFR 62.14103(b)(1), and s. 285.65(13), Wis. Stats. See also Draft Permit I.A.5

⁷³ NR 417.03 Wis. Adm. Code see also Draft Permit I.A.15

⁷⁴ NR 417.025 Wis. Adm. Code see also Draft Permit I.B.1

⁷⁵ Sulfur dioxide is merely one of many pollutants that follows this same pattern of units that are hard to compare and large emissions levels when looking at the smokestacks in aggregate. See also Nitrogen Oxides, lead, carbon monoxide et al.

B. The Combustion Turbines are listed as being uncontrolled.⁷⁶ The permit also describes the turbines as being significant emitters of particulate matter, nitrogen oxide, sulfur dioxide, carbon monoxide and volatile organic compounds.

- **Why is the DNR not requiring controls on the combustion turbines?**

C. The permit inadequately addresses the problems of fly ash. At a community meeting on June 6, 2002, and later at the public hearing on June 13, 2002, residents of French Island complained about ash on their windows, cars, and lawn furniture. They told stories about not being able to hang clothes outside, open their windows that face the facility, and problems of ash damaging paint on cars and outdoor furniture. We were told of a local restaurant that even closed their outdoor patio because of the ash from the incinerator. The fugitive ash limitations that are included in the permit are not in effect for periods of start-up, shutdown, malfunction, or the burning of wood wastes.⁷⁷

- **Why is the DNR allowing the existence of what appears to be a public nuisance?**

D. The Preliminary Determination states that emissions estimates for the RDF Processing Building P99 are based on data obtained from one stack test performed on March 2, 2000.

- **What is the scientific basis for estimating emissions based solely on data from a stack test on a single day?**

E. The Preliminary Determination lists pollutants for which this facility has had a history of noncompliance. These include carbon monoxide, hydrogen chloride and arsenic.⁷⁸

- **Why has the DNR left out mention of Xcel's history of noncompliance with permit limits for dioxin and PM?**

⁷⁶ Draft Permit at p6. There are emissions restrictions on the facility, but there is no pollution control technology on the fuel oil turbines.

⁷⁷ Draft Permit I.A.11.

⁷⁸ Preliminary Determination page 3.

IV. CONCLUSION

Given the history of noncompliance by Xcel's French Island incinerator, the DNR should significantly amend the draft permit to require control technology that will assure compliance with permit terms, clarify permit limits, reduce allowable emissions, and clearly require testing that will demonstrate compliance with the permit terms.

We respectfully request that the permit be amended as requested in this letter. We reserve the right to bring future legal challenges if the DNR issues the permit substantially unchanged.

Sincerely,

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