

CITY OF MANISTEE PLANNING COMMISSION



WORKSESSION AGENDA

Thursday, March 11, 2004 - 7:00 p.m.
Thursday, March 18, 2004 - 7:00 p.m.
Thursday, March 25, 2004 - 7:00 p.m.

I Call to Order.

II Worksession Items:

1. Manistee Saltworks Development Corporation
2. Other

III Adjourn.

All Planning Commission Meetings and Worksessions are open to the Public.

Worksessions are scheduled to allow the Planning Commission the opportunity to discuss in a less formal manner than a regular meeting. No motions or decisions can be made during a worksession.

The Planning Commission does not take public comment during worksessions. Decorum is expected at all times. Applause, shouting, outbursts, demonstrations, name-calling or other provocative speech or behavior is not helpful to the decision-making process and may result in removal. The Public is not allowed to speak, ask questions, or express opinions on items which are being discussed during the worksession.

MEMO

TO: Planning Commissioners

FROM: Denise Blakeslee 
Administrative Assistant

DATE: March 23, 2004

RE: MACTEC Report

Enclosed please find a copy of the report prepared by MACTEC. We wanted to forward this information to you as soon as we received it. We hope this gives you the opportunity to review the report prior to the March 25, 2004 Worksession.

MACTEC will make a presentation at the worksession and answer questions from the commissioners.

:djb

**ENVIRONMENTAL
CONSULTING SERVICES
PERTAINING TO THE
NORTHERN LIGHTS PROJECT
1501 MAIN STREET
MANISTEE, MICHIGAN**

***REPORT PREPARED FOR:*
WADE-TRIM, INC.
MR. BRIAN C. SOUSA, P.E.
7985 MACKINAW TRAIL
CADILLAC, MICHIGAN 49601**

***REPORT PREPARED BY:*
MACTEC ENGINEERING AND CONSULTING, INC.
7985 MACKINAW TRAIL, SUITE 200A
CADILLAC, MICHIGAN 49601**

PROJECT NUMBER 3293041730

MARCH 22, 2004

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1. INTRODUCTION

Manistee Salt Works Development Corporation, located in Houston, Texas, is proposing to construct a 425-megawatt, coal-fueled power plant known as the Northern Lights Project at 1501 Main Street in Manistee, Michigan. Manistee Salt Works Development Corporation is affiliated with Tondu Corporation, which is located at the same address. The proposed site for the Northern Lights Project includes land parcels which were formerly owned by General Chemical Industrial Products, C & E Enterprises, and Seng Dock & Trucking.

As a part of the Northern Lights Project, Manistee Salt Works Development Corporation has submitted a Special Use Permit Application to the City of Manistee Planning Commission. The Planning Commission must review the permit application and evaluate whether a Special Use Permit should be issued.

Some citizens of Manistee have voiced concerns about environmental issues pertaining to the proposed Northern Lights Project. Specifically, they have contacted the Planning Commission with numerous questions regarding potential adverse effects on air quality in the community and the water quality in Manistee Lake if permits are issued for the proposed Northern Lights Project.

2. PROJECT OBJECTIVE

The Northern Lights Project involves very complex environmental regulations and concerns, especially pertaining to air quality issues. Accordingly, MACTEC was retained by Wade-Trim, Inc., on behalf of the City of Manistee Planning Commission, to provide an air quality expert and a water quality expert to address environmental questions pertaining to the Northern Lights Project and to provide detailed answers to these questions in a report format. In addition, MACTEC's air quality expert will participate in one City of Manistee Planning Commission meeting to present the results of the report and to elaborate on the answers as necessary to assist the Planning Commission in coming to an informed decision on the permit application.

3. PROJECT RESULTS

The proposed construction of a coal-fueled power plant facility in Manistee, Michigan, has generated numerous concerns and environmental questions for the City of Manistee Planning Commission and the local community. In order to provide the technical expertise needed to address these environmental issues, MACTEC was retained to prepare detailed responses to several questions which summarize the primary concerns expressed by the Planning Commission and the community. These questions and answers are presented below.

3.1 MAXIMUM GROUND-LEVEL POLLUTANT PARAMETER CONCENTRATIONS

What are the maximum ground-level concentrations of pollutant parameters as determined by a dispersion model analysis? What is the distance and direction from the stack to the ground-level location? Indicate the location of the proposed stack and the maximum ground-level concentration on a map of the area.

As a part of the permit application, the environmental consultant for Manistee Salt Works Development Corporation performed extensive dispersion modeling for various purposes, including an analysis of the potential PM₁₀, SO₂, and NO_x emissions from the proposed 400-foot-high stack which will discharge air emissions from the combustion of coal in the power plant boiler. MACTEC used the emission concentrations of these pollutant parameters as determined from a portion of the dispersion modeling analysis and compared these results to the associated National Ambient Air Quality Standards (NAAQS) threshold. The NAAQS are established by the United States Environmental Protection Agency (USEPA) to represent the maximum allowable pollutant concentrations in the ambient air which are protective of the public health and welfare.

Currently, the USEPA and the state regulatory agency, the Michigan Department of Environmental Quality (MDEQ), focus on particulate matter having a diameter of 10 microns or less (PM₁₀) for regulating particulate matter emissions. The results of the dispersion modeling analysis indicated that the maximum PM₁₀ ground-level concentration (GLC) for the 24-hour averaging period was 14.64 micrograms per cubic meter (ug/m³) and for the annual averaging period the maximum PM₁₀ GLC was 0.97 ug/m³. In English measurement units, the maximum PM₁₀ GLC for the 24-hour averaging period was 9.14x10⁻¹⁰ pound per cubic foot (0.00000000914 lb/ft³) and the maximum PM₁₀ GLC for the annual averaging period was 6.05x10⁻¹¹ lb/ft³. These maximum concentrations are far below the established

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NAAQS for PM₁₀ which allow 150 ug/m³ (or 9.36x10⁻⁹ lb/ft³) for a 24-hour averaging period and 50 ug/m³ (or 3.12x10⁻⁹) for an annual averaging period.

For sulfur dioxide (SO₂), the NAAQS has three standards based on three separate averaging periods: an annual period; a 3-hour period; and a 24-hour period. The maximum SO₂ GLC for the annual averaging period was determined by the dispersion modeling to be 3.94 ug/m³ (or 2.46x10⁻¹⁰ lb/ft³). The maximum SO₂ GLC for the 3-hour averaging period was determined to be 180.03 ug/m³ (or 1.12x10⁻⁸ lb/ft³) and the maximum SO₂ GLC for the 24-hour averaging period was determined to be 65.18 ug/m³ (or 4.07x10⁻⁹ lb/ft³). These maximum concentrations are far below the established NAAQS for SO₂ of 80 ug/m³ (or 4.99x10⁻⁹ lb/ft³) for an annual averaging period, 1,300 ug/m³ (or 8.11x10⁻⁸ lb/ft³) for a 3-hour averaging period, and 365 ug/m³ (or 2.28x10⁻⁸ lb/ft³) for a 24-hour averaging period.

For oxides of nitrogen (NO_x), the NAAQS are based only on an annual averaging period. The maximum NO_x GLC for the annual averaging period was determined to be 2.78 ug/m³ (or 1.73x10⁻¹⁰ lb/ft³). This maximum concentration is far below the NAAQS for NO_x of 100 ug/m³ (or 6.24x10⁻⁹ lb/ft³) for an annual averaging period.

The dispersion modeling also established UTM coordinates, which are similar to longitude and latitude coordinates, for the location of the 1st High Modeled Impact (HMI) for the annual averaging period for the coal-fueled boiler relative to the coordinates of the stack. The 1st High Annual HMI represents the location of the highest coefficient of a pollutant parameter (ug/m³ / gm/sec) based on the average cumulative dispersion effects of meteorological data, stack height, exhaust gas flow rate and temperature and other factors on an annual basis. Conceptually, the highest GLC of any pollutant emitted from the coal-fueled boiler stack would be equivalent to this coefficient times the stack emission rate in units of grams per second and it would have its highest annual impact at this location. The coordinates for the 1st HMI were determined by the dispersion modeling analysis to be 555,151 meters East and 4,897,763 meters North. The coordinates for the stack are 555,551 meters East and 4,897,763 meters North. Using geometric principles, the distance between the stack and the 1st HMI locations can be calculated as 400 meters due west of the stack. In English measurement units, the distance is 1,312 feet or 0.25 mile. A graphical map (Figure 1) of the Manistee area indicating the general location of the stack and the 1st Annual HMI is presented in Appendix A.

3.2 REGULATORY SEPARATION OF PM₁₀ AND PM_{2.5}

Discuss the reasons and implications for the regulatory separation of PM₁₀ and PM_{2.5}.

Particulate matter (PM) is a type of pollution comprised of very small particles in dust, smoke, soot, or other similar materials as well as exhaust gas streams from industrial processes. PM can be present in many shapes, sizes, and compositions, but the USEPA has determined, based on several years of research and scientific study, that two sizes of PM pose a significant health risk when inhaled. These two types of particulate matter are known as PM₁₀ and PM_{2.5}. The number refers to the size of the particle in millionths of a meter (microns). For PM₁₀ the particle size has a diameter of 10 microns or less, and similarly for PM_{2.5} the particle size has a diameter of 2.5 microns or less. For perspective, 10 microns is approximately 1/7th the diameter of a human hair, and 2.5 microns is approximately 1/28th the diameter of a human hair.

Because of their small size, when these particles are inhaled they can evade the respiratory system's natural defense mechanisms and become embedded in the lung's tissues. The movement of the lungs increases the irritation and transfer of the particles within the lung's tissues. Health problems begin as the body reacts to the invasion of these foreign particles. PM can increase the number and severity of asthma attacks, bronchitis, or other lung diseases as well as reduce the body's ability to combat infections. Although PM poses a risk to everyone exposed, children, the elderly, exercising adults, and people suffering from asthma or bronchitis are at a higher risk.

The severity of potential health effects depends on the concentration of the exposure. The NAAQS are established by the USEPA to represent the maximum allowable pollutant concentrations in the ambient air which are protective of the public health and welfare. Accordingly, the USEPA has established NAAQS for PM₁₀ and PM_{2.5}. The established NAAQS for PM₁₀ are 150 ug/m³ (or 9.36x10⁻⁹ lb/ft³) for a 24-hour averaging period and 50 ug/m³ (or 3.12x10⁻⁹) for an annual averaging period. The established NAAQS for PM_{2.5} are 65 ug/m³ (or 4.06x10⁻⁹ lb/ft³) for a 24-hour averaging period and 15 ug/m³ or (9.36x10⁻¹⁰) for an annual averaging period.

Other than industrial activities, primary sources of PM include the following:

- Activity related to, and windblown dust from, construction and agriculture
- Windblown dust from open lands, including beaches and sand dunes
- Outdoor and agricultural burning, including campfires
- Wood-burning stoves and fireplaces
- Motor vehicles

3.3 PROPOSED STANDARDS FOR MERCURY EMISSIONS

What are the proposed standards for mercury emissions USEPA presented in the Proposed Rule for National Emission Standards for Hazardous Air Pollutants (NESHAP) for New and Existing Electric Utility Steam Generating Units? When were the proposed rules issued? When are final rules anticipated to be issued? How does this pertain to the Northern Lights Project?

The proposed mercury (chemical symbol: Hg) emission standards for new and existing Electric Generating Units (EGU) vary depending on the type of coal used as a fuel. The proposed standards are as follows:

For bituminous coal as the only fuel:

Existing Source: 2.0 lbs Hg per trillion BTU (input basis)
21 x 10⁻⁶ lb Hg per megawatt hour (output basis)

New Source: 6.0 x 10⁻⁶ lb Hg per megawatt hour (output basis)

For sub-bituminous coal as the only fuel (**Powder River Basin Coal**):

Existing Source: 5.8 lbs Hg per trillion BTU (input basis)
61 x 10⁻⁶ lb Hg per megawatt hour (output basis)

New Source: 20 x 10⁻⁶ lb Hg per megawatt hour (output basis)

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For lignite coal as the only fuel:

Existing Source:	9.2 lbs Hg per trillion BTU (input basis) 98 x 10 ⁻⁶ lb Hg per megawatt hour (output basis)
New Source:	62 x 10 ⁻⁶ lb Hg per megawatt hour (output basis)

For coal refuse as the only fuel:

Existing Source:	0.38 lbs Hg per trillion BTU (input basis) 4.1 x 10 ⁻⁶ lb Hg per megawatt hour (output basis)
New Source:	1.1 x 10 ⁻⁶ lb Hg per megawatt hour (output basis)

For a blend of coals used for fuel:

The mercury emission limit would be computed as the weighted average of allowable mercury emissions for the individual components based on the proportion of energy output contributed by each coal type burned. The proposed rules provide an equation for this computation.

It is quite apparent by the proposed mercury emission standards that the level of mercury emissions from the combustion of coal varies significantly with the type of coal used as a fuel. In addition, new power plants have more stringent mercury emission limits than existing power plants.

The Powder River Basin (PRB) coal, which is proposed to be the only fuel source for the Northern Lights Project facility, is a sub-bituminous coal. Accordingly, the applicable emission limit standard would be 20x10⁻⁶ lb Hg per megawatt hour. The capacity of the coal-fueled power plant for the Northern Lights Project is stated as 425 megawatts and the maximum number of annual operating hours is 8760. Therefore, under the proposed NESHAP Standard, mercury emissions from the Northern Lights Project coal-fueled power plant would be limited to 0.0085 pound per hour and 74.5 pounds per year. In a permit application amendment for the Northern Lights Project submitted to Mr. John Vial of the MDEQ on January 6, 2004, Manistee Salt Works Development Corporation proposed a mercury emission limit of 80 pounds per year. Until the final rule is published (estimated around December 2004), it is uncertain as to what the compliance requirements will be for the emission limit in the NESHAP Standard (i.e. pound/hour or pounds/month and/or pounds/year).

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In addition, the proposed NESHAP rule requires the owner/operator of a coal-fueled power plant to continuously monitor mercury emissions to demonstrate compliance with the applicable emission limit. Accordingly, the owner/operator of the Northern Lights Project facility will be required to install a continuous emissions monitoring system (CEMS) in the exhaust stack from the power plant boiler to monitor mercury emissions on a continuous basis or establish an equivalent parametric monitoring and record keeping system to verify compliance with the NESHAP Standard.

3.4 PROPOSED AIR POLLUTANT EMISSION RATES FROM NORTHERN LIGHTS PROJECT

What air pollutants are anticipated to be discharged to the atmosphere from the combustion of coal at the power plant and what will be their associated emission rates?

Based on potential emissions estimates presented in the original air permit application submitted to the MDEQ on September 10, 2003 and in the amendment submitted on January 6, 2004, the potential (maximum) emission rates resulting from the combustion of coal at the Northern Lights Project power plant are presented below. Potential emissions are based on a worst-case scenario with the process equipment operating at its maximum capacity on a continuous basis, which means 24 hours per day, 7 days per week, and 52 weeks per year (8,760 hours/year). Actual emissions probably will be less as the boiler will most likely operate for fewer than 8,760 hours per year and at less than its maximum heat input capacity.

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Pollutant	Original Permit	Original Permit	Amended	Amended
	Hourly Emissions (lb/hr)	Total Emissions (tons/yr)	Hourly Emissions (lb/hr)	Total Emissions (tons/yr)
PM ₁₀	174	711	65	267
NO _x	651	2,666	434	1,777
SO ₂	1,086	4,444	651	2,666
CO	651	2,666	651	2,666
VOC	16	61	16	61
Lead	0.10	0.42	0.10	0.42
Mercury	0.049	0.21	0.009	0.04
Hydrochloric Acid	16	61	16	61
Hydrofluoric Acid	1.6	6.1	1.6	6.1

Because the proposed installation of the Northern Lights Project facility is considered a “major source modification” under the regulations and because Manistee County is in an “attainment zone” for all criteria pollutants, it is subject to Prevention of Significant Deterioration (PSD) permitting requirements. One of the PSD permitting requirements is an evaluation of the feasibility of applying the Best Available Control Technology (BACT) for each pollutant exceeding the applicability threshold. Based on various applicability criteria, the applicant concluded that BACT requirements were feasible for addressing sulfur dioxide (SO₂) and oxides of nitrogen (NO_x) emissions. The BACT for a specified pollutant is based on the level of control that equipment manufacturers will guarantee their equipment to achieve under specified operating conditions. These guaranteed control levels can be incorporated into a permit as an emissions limitation.

Accordingly, the applicant proposed an SO₂ emissions limitation of 0.25 pounds per million British thermal units (MMBTU) to be representative of BACT, based on the manufacturer’s performance guarantee for the proposed flue-gas desulfurization equipment and the use of low-sulfur coal. In addition, the applicant proposed an emissions limitation for oxides of nitrogen (NO_x) of 0.15 pounds per MMBTU to be representative of BACT, based on the manufacturer’s performance guarantee for low-NO_x burners and Selective Catalytic Reduction (SCR) control technology. The proposed NO_x limitation is consistent with a limitation issued in an Arizona permit in December 2001 for a similar facility using a similar fuel type to represent BACT. An SO₂ limitation of 0.60 pounds per MMBTU was issued in the same Arizona permit to represent BACT.

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In their permit application amendment of January 6, 2004, Manistee Salt Works Development Corporation proposed reduced emission limitations for PM₁₀, SO₂, NO_x, and mercury based on new BACT determinations. The proposed PM₁₀ emission limit was reduced from 0.04 pounds per MMBTU to 0.015 pounds per MMBTU. The proposed SO₂ emission limit was reduced from 0.25 pounds per MMBTU to 0.15 pounds per MMBTU. The proposed NO_x emission limit was reduced from 0.15 pounds per MMBTU to 0.10 pounds per MMBTU. The proposed NESHAP Standard for mercury emissions from utility boilers for the proposed coal type to be burned equates to a mercury emission limitation of approximately 80 pounds (or 0.04 tons) per year. The original permit application estimated mercury emissions to be 420 pounds (or 0.21 tons) per year. The amended permit application proposes to meet the newly proposed NESHAP standard for mercury emissions.

The permit application also identifies emission rates for several metals and organic toxic air contaminants (TAC), but their values are quite small. They are presented in the permit application to show that they will be below threshold screening level requirements, in accordance with Michigan air permitting regulations.

3.5 FLY ASH POTENTIAL ADVERSE EFFECTS

What potential adverse effects will the fly ash create? Does fly ash pose a health concern as an airborne contaminant?

The chemical composition of fly ash varies somewhat depending upon the types of coal being used as fuel, but a representative composition is as follows:

SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	CaO	MgO	Na ₂ O	K ₂ O	Others
51%	25%	6.5%	4.5%	1.5%	0.5%	1.5%	9.5%

A substantial amount of research has been performed in the Netherlands regarding the occupational health and safety aspects of working with fly ash. The test results indicated worker exposure levels to be well below the established threshold safety levels for the individual chemical components of fly ash. The research further indicated that normal levels of exposure for workers are not likely to cause any significant health effects. This conclusion was substantiated by the results of epidemiological research. In researching the potential health effects of hazardous substances, occupational exposures for workers

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are generally considered a worst-case scenario in that exposures to the general public are expected to be far lower.

The research also indicated that there is no reason to consider fly ash as a “harmful” dust, but it should be treated as a “nuisance” dust. Therefore, fly ash should not pose a health concern as an airborne contaminant if proper nuisance dust standards are implemented and maintained.

The air permit application references a Fugitive Dust Management Plan for addressing fly ash dust and coal dust. It appears that the facility is proposing to manage fly ash dust as a “nuisance” dust.

3.6 COMPARISON OF AIR EMISSIONS WITH OTHER LOCAL SOURCES

Compare the effects of air emissions from the proposed power plant on the local community with air emissions from existing sources in the area.

From a regulatory perspective, the proposed installation of a coal-fueled power plant facility is categorized as a “major stationary source.” To receive a Permit to Install for a major stationary source, the applicant must demonstrate that the proposed emissions will comply with applicable NAAQS and PSD regulations for a facility in an attainment area. As mentioned in Section 3.1, the NAAQS are established by the USEPA to represent the maximum allowable pollutant concentrations in the ambient air which are protective of the public health and welfare. One of the PSD regulations, the PSD Increment Concentrations, establishes the maximum increase in pollutant concentrations allowed from any individual facility. In Michigan, no new source or major modification of an existing source is allowed to take more than 80 percent of the available PSD increment.

As a part of the permit application, potential emissions from the Northern Lights Project facility were modeled in combination with the existing air emissions from major sources in the Manistee and Filer City area (provided by the MDEQ) to determine whether the facility’s proposed emissions would comply with the NAAQS and PSD Increment Concentrations requirements. The dispersion modeling portion of the permit application, which was approved by MDEQ modeling specialists, showed that the proposed emissions will comply with the NAAQS and PSD Increment Concentrations requirements. In addition, the Manistee Salt Works Development Corporation has amended the permit application by proposing further reductions in potential PM₁₀, SO₂, and NO_x emissions.

The proposed power plant may be the highest emitter of air contaminants for an individual facility in the Manistee area. However, it is difficult to compare emissions at this time, because the facility's actual emissions will probably be less than the amounts stated in the permit application. For comparative purposes only, MACTEC assumed the facility's "actual" emissions would be 70 percent of the potential emissions proposed in the amended permit application. These estimated emissions for the Northern Lights Project are listed in a spreadsheet along with the actual 2002 emissions reported by other facilities in the area to the MDEQ. The spreadsheet is presented in Appendix B. A list of the local facilities used for the emission comparison with their corresponding addresses and maps of the area (Figure 2 and Figure 3) presenting their relative locations are also provided in Appendix B.

3.7 ATTAINMENT VERSUS NON-ATTAINMENT FOR MANISTEE COUNTY

Discuss how an attainment versus non-attainment designation status for Manistee County would affect the permitting status of the Northern Lights Project and whether the City of Manistee can influence the attainment status.

A county or geographical region of a State is classified in "attainment" when monitoring data for a specific pollutant, such as ozone, PM_{10} , or $PM_{2.5}$, demonstrate compliance on a consistent basis with the applicable NAAQS. If the monitoring data indicate excursions of the applicable standard exceeding the acceptable criteria, the county or region will receive a "non-attainment" designation. Currently, Michigan is in attainment with all existing NAAQS. However, the USEPA established a new 8-hour averaging period NAAQS for ozone in addition to the existing 1-hour averaging period standard. Because of the 8-hour ozone standard, on or about May 15, 2004, several counties in Michigan will be designated in non-attainment for ozone. As mentioned in Section 3.6, Benzie County and Mason County, which have an ozone monitoring site within the county borders, are expected to be designated in non-attainment for ozone. Manistee County does not have an ozone monitoring site and is expected to be classified in attainment.

The attainment versus non-attainment designation has significant ramifications for air permitting requirements. An applicant proposing a major source installation or modification in an attainment area would need to provide Best Available Control Technology (BACT) to the extent that it is reasonable, practical, and economically feasible to minimize air emissions. For any non-attainment pollutants, a different category of federal and state regulations apply (PSD does not apply). A part of these regulations

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require the applicant to provide the Lowest Achievable Emission Rate (LAER) for the process operation and equipment currently being demonstrated by any other facility using similar equipment and materials for the same operation, *regardless of cost*. In addition, the applicant cannot increase emissions in the area and, in fact, must show a decrease by providing “offsets” that were generated in the non-attainment area. The amount of offsets required depends on the severity of the air pollution in the non-attainment area. For ozone, volatile organic compounds (VOC) and, possibly NO_x are the pollutant parameters to be considered because they are classified as “precursors” to ozone.

Michigan’s Air Pollution Control Rule 220 was originally developed more than 20 years ago as a state regulation to address the non-attainment issues of that time (it hasn’t been needed for many years). However, its current language is expected to create significant concerns for establishing offsets in non-attainment areas which will hinder permitting efforts. The MDEQ is working to rescind Rule 220 and to replace it with an updated rule, but the issue is not expected to be resolved until the summer of 2005. Meanwhile, several questions remain unanswered regarding major source permitting in non-attainment areas in Michigan and May 15, 2004 is quickly approaching.

Conceptually, Manistee County could take action to be designated a non-attainment area. The county would need to have a monitoring site installed to provide the data necessary to establish non-attainment status (three years of monitoring data are usually used to establish a baseline for non-attainment evaluation). Presumably, the citizens can petition the Air Quality Division of the MDEQ Cadillac District Office and the Lansing Headquarters to install a monitoring site citing potential health concerns due to ozone resulting from regional transport. Winning the support of local State legislators would probably increase the likelihood and expedite the process. However, it is imperative that the ramifications of this action be carefully considered, because being designated as a non-attainment area may have substantial short-term and long-term effects on many aspects of industrial and municipal operations.

3.8 AIR QUALITY IMPACT FROM REGIONAL TRANSPORT

What air quality impact does the City of Manistee currently see from industrial plants outside the area?

Historically, Manistee County has remained in attainment with all of the ambient air quality standards. However, on or about May 15, 2004, the USEPA is expected to designate certain areas in Michigan to be in non-attainment with the new 8-hour ozone standard. Benzie County and Mason County are expected

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to be designated as non-attainment areas, but Manistee County and Oceana County are expected to be designated as attainment areas. Benzie County and Mason County have ozone monitoring sites which have recorded incidents above the new 8-hour ozone standard resulting in the non-attainment designation. However, the incidents are believed to be due to regional transport of ozone from the Chicago and Milwaukee metropolitan areas.

Manistee County is expected to be designated in attainment with the new 8-hour ozone standard in 2004. However, there is no ozone monitoring site in Manistee County to obtain data to confirm or refute this designation. Given the relatively close proximity of Benzie County and Mason County, counties which have shown to be affected by regional transport of ozone, it is our opinion that Manistee County is likely affected in a similar manner but there are no data to demonstrate these effects.

3.9 ANTICIPATED FUGITIVE EMISSIONS OF COAL DUST

What are the anticipated fugitive emissions of coal dust associated with coal transfer from freighters to coal pile and loading from coal pile to vehicles or conveyors on an annual basis?

The air permit application identifies coal transfer operations as being transfers between ships and coal receiving hoppers and transfers between the main overhead coal conveyors to the coal storage pile. It also stipulates that coal handling operations will be “curtailed” when winds are greater than 30 miles per hour (mph). The uncontrolled fugitive coal dust emissions estimated in the permit application are 1.07 pounds per hour and 2.17 tons per year. The uncontrolled emissions were derived by using an average wind speed of 11.6 mph, an average moisture content for the coal of 4.5 percent, and an annual coal throughput of 2,019,618 tons. The permit application further stipulated that the coal transfer operations would be controlled, and the control efficiency would be 90 percent. Accordingly, the controlled coal dust emissions from the transfer operations are estimated to be 0.11 pounds per hour and 0.22 tons per year.

For comparative purposes, MACTEC used the same formula to calculate uncontrolled fugitive coal dust emissions based on variances in wind speed and moisture content in the coal for each transfer operation. Five values of wind speed were used varying from 5 mph to 25 mph, and five values of moisture content were used varying from 0.5 percent to 4 percent. Emission factors for the 25 variable combinations were calculated as well as an average emission factor. An annual coal handling throughput of 2,000,000 tons was assumed for the calculation of uncontrolled fugitive coal dust emissions. A spreadsheet containing the results of the calculations is presented in Appendix C.

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The worst-case scenario for uncontrolled fugitive coal dust emissions would be when the coal is at its driest and the wind speed is at its highest. Accordingly, the parameters used to estimate the worst-case scenario included the moisture content being 0.5 percent and the wind speed being 25 mph. Under these conditions, an estimated 63.21 tons per year of uncontrolled fugitive coal dust would be released for each of the two coal-transfer operations (a total of 126.42 tons per year).

The best-case scenario for uncontrolled fugitive coal dust emissions would be when the coal has the most moisture and the wind is calmest. For this scenario, MACTEC assumed the coal's moisture content to be 4 percent and the wind speed to be 5 mph. Under these conditions, an estimated 0.42 tons per year of uncontrolled fugitive coal dust would be released for each of the two coal-transfer operations (0.84 tons per year total).

If an equal amount of all 25 parameter conditions, as presented in Appendix C, occurred throughout the year, an estimated 11.28 tons of uncontrolled fugitive coal dust emissions would be released for each operation or a combined 22.56 tons for the two operations. While this value may appear high, it may be helpful to put this amount in perspective: 22.56 tons represents approximately one-thousandth of one percent of the 2,000,000 tons handled. In addition, dust-control activities implemented during coal-transfer operations would further reduce the amount of fugitive dust emissions. Assuming 90 percent control efficiency, as proposed in the permit application, the coal-transfer operations would produce 2.26 tons of fugitive coal dust emissions.

3.10 USEPA INTERSTATE AIR QUALITY RULE

How does the USEPA's proposed Interstate Air Quality Rule for NO_x and SO₂ reductions affect the Northern Lights Project? How will it affect mercury emissions?

On January 30, 2004, the USEPA published in the Federal Register the proposed "Interstate Air Quality Rule" which is designed to dramatically reduce and permanently cap emissions of SO₂ and NO_x from electric utilities. The proposed rule focuses on 29 "eastern" states, including Michigan, in which power plant emissions significantly contribute to fine particulate and ozone pollution in downwind states. Accordingly, the Northern Lights Project will be subject to these proposed rules.

The flue gas desulfurization technology that is required by the proposed rule to reduce SO₂ emissions will also reduce mercury emissions. Similarly, selective catalytic reduction (SCR) control equipment is used

SECTION 3 – PROJECT RESULTS

for the reduction of NO_x emissions, but it also reduces mercury emissions. Combining these two types of air-pollution control technologies is often the most cost-effective way for electric utility power plants to reduce emissions because it not only addresses both SO₂ and NO_x but it controls mercury emissions as a “bonus.”

The Northern Lights Project facility is proposing to utilize both flue gas desulfurization and SCR control equipment. In doing so, the owner/operator apparently will be addressing the proposed Interstate Air Quality Rule, the proposed NESHAP Standard mercury emission limitations, and BACT requirements.

Coal-fueled power plants in Indiana, Illinois, and Wisconsin will also be subject to the proposed Interstate Air Quality Rule. These facilities will also be required to reduce NO_x and SO₂ emissions, which should reduce the amount of air pollutants such as ozone that are transported to Manistee County from downwind areas.

3.11 COMMUNITY INPUT

Will the community have any input or recourse regarding the air permit conditions for the proposed power plant?

Yes, the community will have opportunities to voice its concerns regarding the pending air permit conditions for the proposed Northern Lights Project. The proposed construction of the coal-fueled power plant facility is a major source which is subject to a New Source Review (NSR) permit. The NSR process includes a public-comment period where the draft permit is available for review by the community, usually for 30 days. At the end of the public-comment period, a public hearing is held, if requested by interested parties, to provide a forum for addressing issues related to the proposed project before a construction permit is issued by the MDEQ. The interests of the community can be reflected in the project-specific conditions that the MDEQ incorporates into each permit.

The regulations require a notification for a public-comment period or a public hearing to be published in the local newspaper having the largest circulation in the area. However, the regulations do not stipulate where in the newspaper it must be published, and the notification may go unnoticed. Accordingly, public-comment period and public hearing notifications can be obtained from the MDEQ by accessing the DEQ Calendar via the agency’s Web Site at www.michigan.gov/deq then click on “Information & News” then on “Calendar.” The Calendar will provide a contact person and phone number with a brief

SECTION 3 – PROJECT RESULTS

description of the issue. These notifications can also be obtained by contacting the MDEQ Lansing Headquarters at (517) 373-7917 and asking for the Air Quality Division, Permitting Section or the MDEQ Cadillac District Office at (231) 775-3960 and asking for the Air Quality Division.

If granted a “Permit to Install” by the MDEQ, most power plants are also required to obtain a Renewable Operating Permit (ROP). A public-comment period and public hearing, if requested by interested parties, is also a part of the ROP process. The terms and conditions of the Permit to Install will be incorporated into the ROP as well as any other monitoring, reporting, or recordkeeping conditions the regulatory agency deems appropriate for compliance purposes, or to address any new applicable rules implemented since issuing the Permit to Install, such as NESHAP Standards.

The MDEQ has established and implemented a new pilot program known as Promoting Leadership in Environmental Decision-making to Grow our Economy (PLEDGE) to facilitate and expedite the permitting process. One of the key points of the PLEDGE Program is for the permit applicant to provide “early notification and involvement of local governments, citizens, and environmental groups” into the permit application process.

3.12 POTENTIAL EFFECTS OF WATER DISCHARGE

Please discuss any potential effects of warm water discharge on the receiving waters. What adverse effects may result from the addition of corrosion protection chemicals, biocides, chlorine, or other water treatment additives?

Thermal pollution caused by the discharge of cooling water can result in significant changes to the aquatic environment. Most aquatic organisms are adapted to survive in a specific temperature range. As temperatures increase cold water organisms could be replaced by warm water species, or species may become stressed and be more vulnerable to toxic compounds, parasites, or diseases. Thermal pollution can indirectly affect ecosystems by lowering the amount of dissolved oxygen in a water body. Cooler water can hold more oxygen than warmer water, and low oxygen levels can cause oxygen-sensitive species to die.

Higher water temperatures increase photosynthesis and plant growth, and subsequently more decaying vegetative matter as the plants die and decompose. Bacteria that decompose the organic matter further consume oxygen which can result in a drop in dissolved oxygen levels.

SECTION 3 – PROJECT RESULTS

The metabolic rate of fish and aquatic organisms also increases with higher water temperatures requiring additional oxygen for respiration. The life cycles of aquatic insects may be accelerated due to higher water temperatures. Migratory birds that depend on aquatic insects emerging at specific times during the year could be at risk if the insects no longer emerge during migratory flights.

Manistee Lake is a migratory route for anadrous salmonids, especially King salmon. It is designated a coldwater lake but can support both cold water and warm water fish. Manistee Lake also supports a population of Lake Sturgeon which is an endangered species.

Part 4 of Public Act 451, Public Acts of 1994, the Natural Resources and Environmental Protection Act; specifies temperature standards which must be met for inland lakes such as Manistee Lake. The rules for Part 4 state that an inland lake shall not receive a heat load which would increase the temperature of the “thermocline” (i.e., the layer of water marking the boundary between the warmer surface zone and the colder deep zone) or the “hypolimnion” (i.e., the deepest noncirculating layer of cold water at the bottom of a thermally stratified lake). The rules also state that the heat load shall not decrease the volume of water in the thermocline or the hypolimnion. In addition, the temperature increase of the receiving water at the mixing zone cannot increase by more than three degrees Fahrenheit above natural water temperature. Rule 72 states that the heat load shall not increase the temperature of the receiving water at the edge of the mixing zone to temperatures greater than the following maximum temperatures:

Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
45	45	50	60	70	75	80	85	80	70	60	50

Because Manistee Lake is a principal migratory route for trout, salmon, and Lake Sturgeon, a heat load from cooling water discharge could not be added during periods of migration at locations and in such a manner that would adversely affect the salmon migration.

Manistee Salt Works Development Corporation must obtain existing data or collect new data that characterizes the thermal stratification of Lake Manistee, the migratory times and locations of migratory fishes, and the potential effects of the proposed cooling water discharge on the aquatic life in the lake, including endangered species such as Lake Sturgeon.

SECTION 3 – PROJECT RESULTS

Water treatment additives can also adversely affect the aquatic organisms in Manistee Lake if the discharge is not in compliance with National Pollutant Discharge Elimination System (NPDES) requirements. The MDEQ has data on the acute and chronic toxicity of numerous water treatment additives and they approve the use of specific water treatment additives on a case-by-case basis.

For example, cooling systems can use chlorine as a water treatment additive to reduce biological growth and “fouling” of the cooling water piping system. The MDEQ requires facilities that use chlorine to meet discharge standards that are protective of aquatic life. A cooling water system can continuously discharge no more than 38 parts per billion (ppb) of chlorine to a surface water body. Higher concentrations of chlorine are permissible in the discharge if chlorine treatment is intermittent. If the duration of the chlorine dose is 120 minutes or less per day, then the concentration of chlorine in the discharge can be as much as 200 ppb. If a facility cannot meet these discharge limits for chlorine then dechlorination of the cooling water is required prior to discharge.

3.13 POTENTIAL ADVERSE EFFECTS FROM MANISTEE LAKE WATER REMOVAL

What adverse effects may result from pumping 6 MGD of water from Manistee Lake?

A 6.0 MGD water intake can disrupt the thermocline and hypolimnion and adversely affect native organisms in a lake as well as migratory species. If an intake is not properly located and designed, it could cause a high mortality for fish and shellfish that could be drawn into the intake.

Section 316(b) of the Clean Water Act identifies requirements applicable to cooling water intake structures for new facilities. The requirements would apply to the Northern Lights Project as a new facility that has a design intake flow greater than 2 MGD. New users must comply with Paragraphs 125.84 (b) (1) and (2) of Section 316 (b), or for a facility with an intake flow less than 10 MGD (Northern Lights Project) propose alternatives which demonstrate comparable levels of achievement as these paragraphs. Paragraphs 125.84(b)(1) and (2) of Section 316(b) require:

- Paragraph 125.84(b)(1): a new user to reduce the intake flow, at a minimum, to a level commensurate with that which could be attained by a closed-cycle recirculating cooling water system.

SECTION 3 – PROJECT RESULTS

- Paragraph 125.84(b)(2): a new user to design and construct each cooling water intake structure to a maximum design intake velocity of 0.5 feet per second.

The Northern Lights Project would be required to perform and submit the results of a Comprehensive Demonstration Study (Study), as part of the submittal of an NPDES permit application. The Study would characterize the source water baseline in the vicinity of the intake structure, and confirm that the technologies proposed at the intake structure reduces the impact to fish and shellfish comparable to those that would be achieved if the facility implemented the requirements in Section 125.84(b)(1) and (2). The Study would also be required to demonstrate that the proposed technology would reduce both impingement mortality and entrainment of all life stages of fish and shellfish to 90 percent or greater compared to what would be achieved through the implementation of the requirements stipulated in Paragraph 125.84(b)(1).

A plan must be submitted to the USEPA that details how information would be collected to support the Study. The plan must include a description of proposed technologies to be evaluated; a list and description of any historical studies characterizing the physical and biological conditions in the vicinity of the proposed intake; any public participation or consultation with Federal or State agencies used in developing the plan; and a sampling plan for data that will be collected using actual field studies in the lake.

The Study must also include a “Source Water Biological Study”, evaluation of the potential effects of the cooling water intake structure, evaluation of proposed restoration measures, and a monitoring plan to verify that the impacts are acceptable.

The Source Water Biological Study will contain taxonomic identification and characterization of aquatic biological resources including: a summary of historical and contemporary aquatic biological resources; determination and description of the target populations of concern; and a description of the abundance and temporal/spatial characterization of the target populations based on a collection of multiple years of data to capture seasonal and daily activities (e.g. spawning, feeding and water column migration) of all life stages of fish and shellfish found in the vicinity of the cooling water intake structure. This source water study will also include an identification of all threatened and endangered species that might be susceptible to impingement or entrainment by the proposed cooling water intake structure, and a description of additional chemical, water quality, and other anthropogenic stresses on the lake.

SECTION 3 – PROJECT RESULTS

The Northern Lights Project must also complete an evaluation of potential cooling water intake structure effects. This evaluation will include calculations of the reduction in impingement mortality and entrainment of all life stages of fish and shellfish that must be achieved by their selected technology. An engineering estimate of the efficiency of the proposed technology to minimize impingement mortality and entrainment of all life stages of fish and shellfish would also be completed.

If the Northern Lights Project proposes to use restoration measures such as fish stocking to maintain the fish and shellfish populations, then they would be required to show that they have coordinated with appropriate fishery management agencies. The project developer would also be required to provide a list of the measures to be implemented to ensure that restoration measures will maintain the fish and shellfish in the lake to a substantially similar level as would be achieved under Paragraphs 125.84(b)(1).

A verification monitoring plan would also have to be provided at the time of submission of an NPDES permit application. The monitoring plan would include, at a minimum, two years of monitoring data to verify full-scale performance of the proposed technology operational measures, and to conduct monitoring of restoration measures if these measures were proposed.

After construction of the power plant, the owner/operator will be required to monitor specified parameters to demonstrate compliance with the requirements of Part 316 (b) of the Clean Water Act. Monitoring will include biological monitoring for both impingement and entrainment of the commercial, recreational, and forage base fish and shellfish identified in the Study. Sampling to monitor for impingement rates must be completed no less than once per month. Sampling for entrainment must be completed no less than biweekly during the primary period of reproduction, larval recruitment, and peak abundance identified in the Study. The head loss or velocity across the intake screen system would be monitored at least quarterly, and visual or remote inspections to ensure that the intake is functioning properly would be required weekly. These monitoring frequencies would be required for at least two years, after which time the owner/operator of the facility could request a reduction in the monitoring frequency.

In addition to potential adverse effects to the aquatic life, a concern was expressed regarding the potential hydrological effects of pumping 6.0 MGD of water from Manistee Lake. The Manistee River flows into Manistee Lake from the northeast, and the Little Manistee River flows into Manistee Lake from the southeast. Other significant water sources undoubtedly flow into Manistee Lake. Historically, the average flow rate for the Manistee River entering Manistee Lake is approximately 2,000 ft³/sec (or 1.29

billion gals/day) and the average flow rate for the Little Manistee River is approximately 165 ft³/sec (or 0.11 billion gals/day). Accordingly, the proposed pumping of 6.0 MGD from Manistee Lake represents an estimated 0.4% of the average volume of water that flows into the lake from the Manistee River and the Little Manistee River. In considering the mass balance of water volume for Manistee Lake, the pumping of 6.0 MGD would affect the volume of water flowing from Manistee Lake to Lake Michigan (outflow) not the water level in Manistee Lake (inflow), and the net effect would likely be in the tenths or hundredths of a percent range.

3.14 MERCURY EMISSION CONTROL TECHNOLOGIES

Identify mercury emission control technologies and discuss their applicability to the Northern Lights Project.

Mercury is a difficult air pollutant to control, because it is present in the flue gas as a vapor, in elemental and multiple-ionic form, and as particulate matter as a constituent of the fly ash. Low concentrations of mercury in the flue gas from coal-fueled power plants increase the difficulty of emission control. However, by combining control technologies, significant mercury reductions can be achieved.

Several types of control devices are available for the Northern Light Project to provide some level of mercury control efficiency. They are identified below with a brief description of each device.

Coal Cleaning is a pre-combustion process to remove materials from the coal to reduce the amount of mercury-containing fly ash generated during combustion. This process is used primarily on Eastern and Midwestern bituminous coals to reduce sulfur. It is rarely used for Powder River Basin coal.

Electrostatic Precipitators (ESPs) are used to control fly ash emissions. Although they have low energy requirements and operating costs, ESPs are very limited in removing mercury in vapor form in the flue gas and generally have lower removal efficiencies than other particulate control devices.

Fabric Filter Baghouses are also used to control fly ash emissions. The flue gas passes through the tightly woven fabric but the fly ash particulate is removed. Fly ash dust will form on the filters and act as an adsorbent material which can potentially reduce elemental and ionic mercury emissions.

SECTION 3 – PROJECT RESULTS

Flue Gas Desulfurization (FGD) or “Scrubbers” are installed to remove SO₂ from power plant flue gas. Wet scrubbers are normally more efficient than dry scrubbers and have demonstrated a higher efficiency in removing ionic mercury from utility boiler flue gas than dry scrubbers. Wet and dry scrubber systems can be used simultaneously to remove SO₂ and trace metals, including mercury.

Selective Catalytic Reduction (SCR) is used to reduce NO_x emissions from the power plant flue gas. Although SCR can reduce NO_x emissions up to 90 percent, the catalyst material is vulnerable to interference from particulate matter. For a coal-fueled power plant, a baghouse may be needed ahead of the SCR. The SCR technology has been found to increase oxidized mercury downstream, which can increase removal efficiency by a scrubber to as much as 80 percent.

Carbon Injection involves the direct injection of activated carbon into the flue gas exhaust stream from the power plant boiler. The carbon is collected in a downstream particulate control device (e.g., baghouse). The mercury removal efficiency depends on several variables including the amount of carbon used, the flue gas temperature, mercury speciation, flue gas composition, as well as the type of activated carbon used. However, mercury emission reductions have averaged 80 to 98 percent by using carbon injection.

Carbon-circulating, Fluidized Bed Scrubbers are used for removing SO₂ and mercury emissions. Although this technology has seen limited application in the U.S., it has been used in several power plants in Germany and Japan for SO₂ emission control and has achieved more than 90 percent mercury control as a bonus.

Mercury Capture using a Noble Metal Sorbent is a control procedure based on the ability of some metals, gold in particular, to readily form alloys with mercury. The alloy formation is reversible, and the mercury can be recovered from the sorbent material so both materials can be reused. Lab tests of alumina-supported gold sorbent material achieved 95 removal efficiency of gaseous mercury, regardless of its chemical form.

In addition to utilizing add-on control technology to reduce mercury emissions, new technology has been introduced to the electric utility industry as a replacement for the conventional pulverized coal-fueled boiler for reducing emissions, including mercury. These new technologies would be a replacement for

SECTION 3 – PROJECT RESULTS

the boiler design and be independent of the add-on controls discussed above. The two new boiler technologies are discussed below.

Integrated Gasification Combined-Cycle and Pressurized Fluidized-Bed Combustion are two new methods of “clean coal technology” that combust the coal in a different manner than in a conventional pulverized coal-fueled boiler. These technologies can dramatically reduce mercury and other emissions from coal-fueled power plants such as the proposed Northern Lights Project facility.

There are two integrated gasification combined-cycle (IGCC) units currently generating electricity commercially in the U.S. One is near Tampa, Florida and the other is near Terre Haute, Indiana. The Terre Haute facility has been called the “cleanest coal-fired plant in the world” by Phil Amick, a vice president with Global Energy, Inc. Published reports for IGCC claim 99 percent removal of sulfur from the flue gas.

There are approximately 130 circulating fluidized bed boilers operating in the U.S. out of the estimated 1,100 coal-fueled generating units. The boilers operate at a lower temperature to minimize NO_x emissions and they contain limestone to absorb the sulfur from the coal.

4. SUMMARY

The proposed installation of the Northern Lights Project facility will result in a significant source of air emissions, probably the largest source in the area. However, new power plants are subject to numerous permitting and other regulatory requirements that are designed to ensure that air quality, water quality, and other environmental impacts are reduced to levels that are protective of public health and the environment. At each step in the permitting process, there are opportunities for public input. The agencies who issue these permits have the ability to incorporate limiting conditions to address legitimate environmental concerns expressed by the affected community.

The dispersion modeling results provided by the developer with the air permit application indicated that the location of the 1st High Modeled Impact for the annual averaging period for the coal-fueled boiler stack emissions is located 400 meters west of the stack location. These results appear inconsistent with conventional wisdom as the prevailing winds in the area tend to come from a westerly direction. Accordingly, it would seem reasonable to assume that the impact location would be east of the stack. The Planning Commission should request an explanation for these results from the developer and the MDEQ.

The Northern Lights Project facility is proposing to combine two state-of-the-art air pollution control technologies, flue gas desulfurization and selective catalytic reduction, to reduce sulfur dioxide (SO₂) and oxides of nitrogen (NO_x) emissions. In doing so, the owner/operator expects to meet the proposed Interstate Air Quality Rule, the proposed NESHAP Standard mercury emission limitations, and BACT requirements. The potential air emissions from the proposed coal-fueled power plant facility also will comply with the current National Ambient Air Quality Standards (NAAQS) and with the Prevention of Significant Deterioration (PSD) Increment Concentrations requirements, which take into account the combined effect of air emissions from other “major” facilities in the area. Utilizing carbon injection or a circulating-carbon, fluidized-bed scrubber instead of the dry flue gas desulfurization scrubber would be expected to further reduce SO₂ and mercury emissions. The circulating-carbon, fluidized-bed scrubber is expected to achieve higher mercury removal efficiency than carbon injection.

The permit application includes a Fugitive Dust Management Plan which provides control programs and procedures for minimizing fugitive dust emissions from the management and handling of fly ash and coal. During a public comment period or meeting with MDEQ permitting personnel, a recommendation should be made that the implementation of an approved Fugitive Dust Management Plan become incorporated as

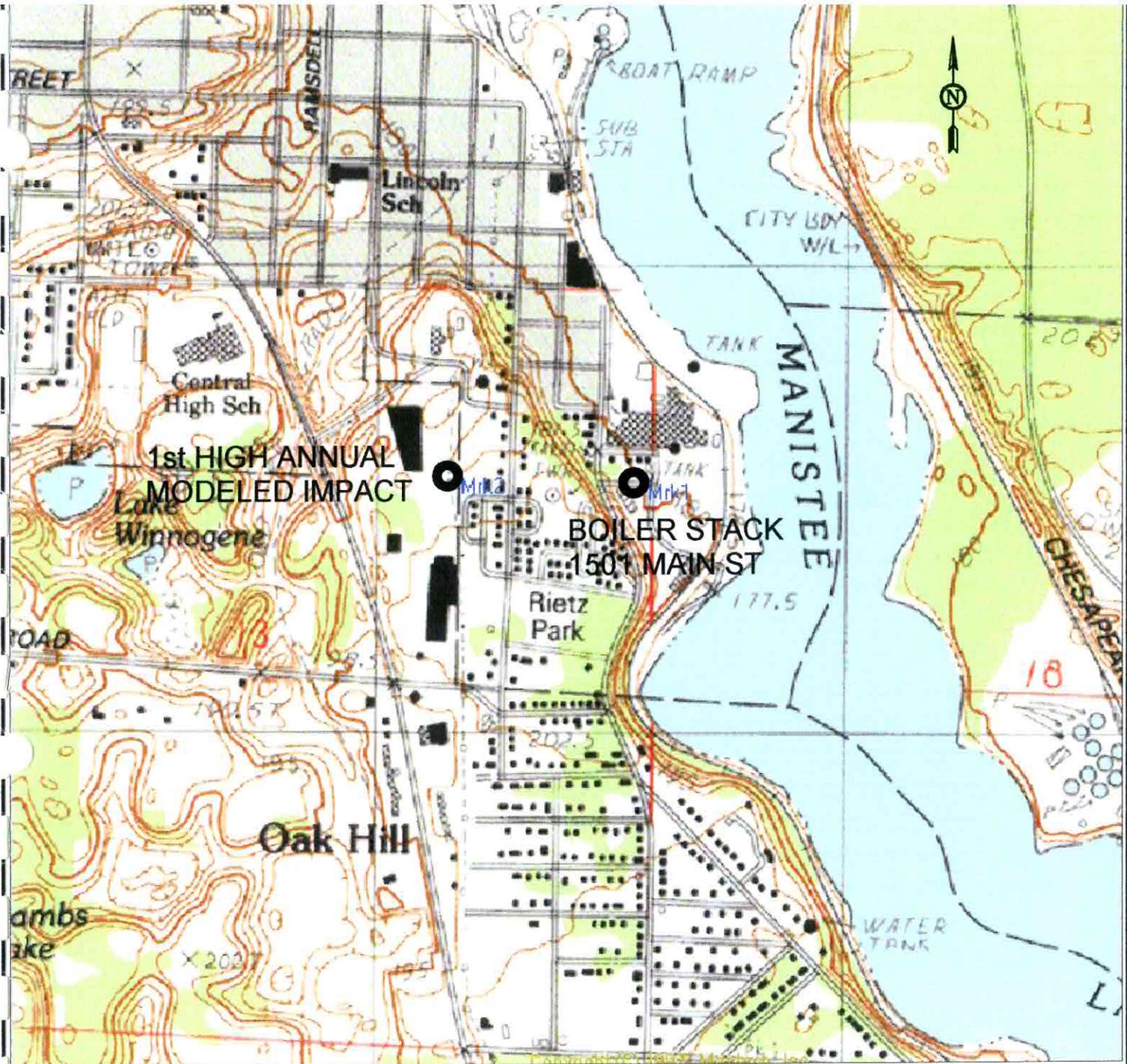
SECTION 4 – SUMMARY

be made that the implementation of an approved Fugitive Dust Management Plan become incorporated as a condition in a permit to install. In doing so, it would make the plan provisions enforceable by the regulatory agencies and subject the applicant to associated compliance requirements. Accordingly, failure to comply with the provisions of the plan would be a violation of the permit condition and subject the owner/operator to potential fines and penalties.

The new NAAQS for ozone is expected to become effective on or about May 15, 2004, and the new standard is expected to cause several Michigan counties to be designated in “non-attainment” status with regard to the standard. Benzie County and Mason County, which have ozone monitoring sites, are expected to be designated as non-attainment areas, most likely due to the regional transport of ozone from the Chicago and Milwaukee metropolitan areas. Manistee County is expected to be designated as an “attainment” zone.

Mr. Brian Myers of the MDEQ, Water Quality Division at the Cadillac District Office informed MACTEC that the developer had not submitted a water discharge permit application as of February 25, 2004. Accordingly, it is difficult to determine the potential adverse effects that the proposed facility may have on Manistee Lake. Before issuing an NPDES permit for water discharges from the proposed power plant, the MDEQ will presumably analyze the potential impacts and establish permit requirements that will protect the ecosystem of Manistee Lake. However, the developer must provide specific information with the water discharge permit application specifying how the facility will protect the aquatic community and the ecosystem.

APPENDIX A
MAP OF BOILER STACK LOCATION AND
1ST HIGH MODELED IMPACT LOCATION



APPENDIX B

LOCATIONS OF SOURCES IN MANISTEE AREA

AIR EMISSIONS FROM SOURCES IN MANISTEE AREA

MAPS OF LOCATIONS OF SOURCES IN MANISTEE AREA

PROPOSED FACILITY LOCATION

Manistee Saltworks Development Corporation
1501 Main Street
Manistee, Michigan 49660

EXISTING LOCAL MAJOR EMISSION FACILITY LOCATIONS (2002)

TES Filer City Station
700 Mee Street
Filer City, Michigan 49634

General Chemical Industrial Products, Inc.
1501 Main Street
Manistee, Michigan 49660

Morton Salt Performance Chemical
180 Sixth Street
Manistee, Michigan 49660

Merit Energy Company
Manistee 15 CPF
Schoedel Road
Manistee Township, Michigan 49660

Merit Energy Company
5704 Collins Road
Manistee, Michigan 49660

Shell Western EP, Inc.
Manistee Sulfur Plant
4000 Fisk Road
Manistee, Michigan 49660

Aztec Producing Company, Inc.
335 Washington Street
Manistee, Michigan 49660

Martin Marietta Magnesia Specialties, LLC
1800 Eastlake Road
Manistee, Michigan 49660

Packaging Corporation of America
2246 Udell Street
Filer City, Michigan 49634

STACK AIR EMISSIONS FROM SOURCES IN MANISTEE

FROM 2002 REPORTS SUBMITTED TO MDEQ

Facility	POLLUTANT PARAMETERS									
	Carbon Monoxide CO (tons/yr)	Oxides of Nitrogen NOx (tons/yr)	Total Particulate PM (tons/yr)	Total PM-10 (tons/yr)	Total PM-2.5 (tons/yr)	Oxides of Sulfur SOx (tons/yr)	Volatile Organic Compounds VOC (tons/yr)	Lead Pb (tons/yr)		
Manistee Saltworks Development Corp.	1870	1244		187		1866	45	0.30		
TES Filer City Station	152.55	1118.72		10.47 (5758.35) #	2.22	483.04	0.00	0.02		
General Chemical Industrial Products	71.24	172.80	161.45	113.12	43.05	511.36	0.66	0.18		
Morton Salt Performance Chem.	123.32	167.22	325.56	121.88	44.69	826.00	0.45	0.27		
Merit Energy Co. Manistee 15 CPF	1.36	9.68	0.03	0.03		0.002	24.56			
Merit Energy Co. Collins Road	8.43	60.02	0.21	0.21		147.95	2.86			
Shell Western Sulfur Plant	31.38	186.77	1.74	1.74		574.00	12.09			
Aztec Producing Company	4.96	34.69	0.14	0.14		98.53	2.46			
Packaging Corp. of America	650.57	487.87	51.56 (3310.33) #	7.45 (761.38) #	3.24 (198.62) #	1328.57	2135.39 (2.33) #	0.02 (0.49) #		
Martin Marietta Magnesia	47.63	171.70	89.70	10.03		159.98	2.11			

NOTE: The emissions for Manistee Saltworks Development Corp. are estimated as 70% of the potential to emit.

FOOTNOTE: # Emissions calculated by MDEQ.



FIGURE 2

LOCATIONS OF SOURCES
IN MANISTEE AREA

MANISTEE, MICHIGAN



MACTEC

46850 Magellan Drive, Suite 190
Novi, MI 48377
248-926-4008

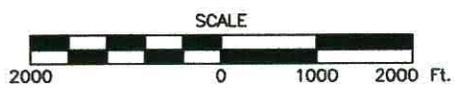
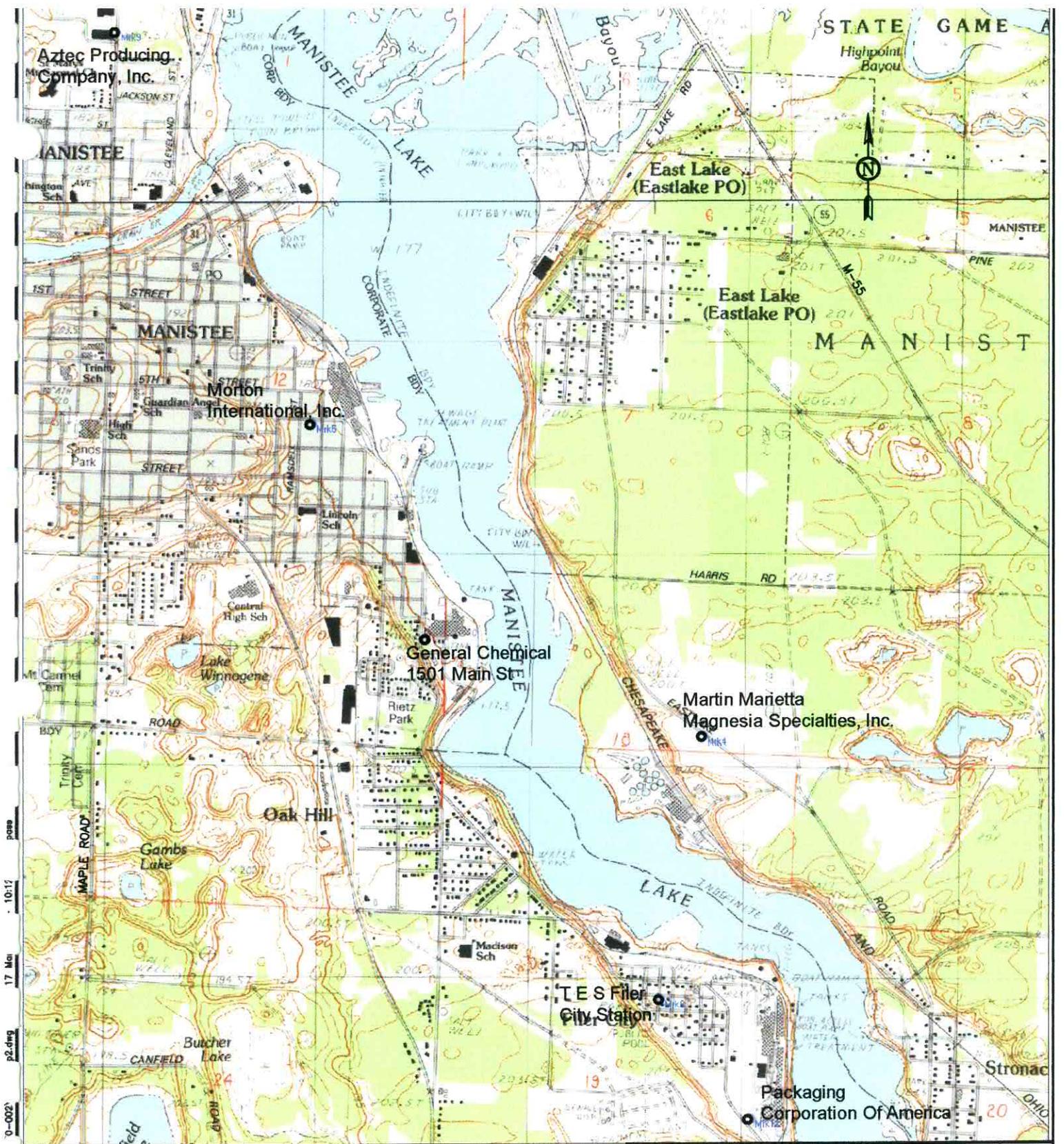


FIGURE 3

LOCATIONS OF SOURCES
IN MANISTEE AREA

MANISTEE, MICHIGAN



46850 Magellan Drive, Suite 190
Novi, MI 48377
248-926-4008

APPENDIX C
COAL HANDLING OPERATIONS
UNCONTROLLED FUGITIVE EMISSIONS

COAL HANDLING OPERATIONS UNCONTROLLED FUGITIVE DUST EMISSIONS PER HANDLING OPERATION

$$EF \text{ (lbs coal dust / ton of coal)} = k (0.0032) ((U/5)^{1.3}) / ((M/2)^{1.4})$$

Where: k = Particle size multiplier = 0.35 (for < 10 um)

U = Mean wind speed in miles per hour

M = Material moisture content in percent

T = Estimated annual coal throughput handled per operation = 2,000,000 tons

EF =	0.001120	U = 5 mph & M = 2%	Fugitive Emissions =	1.12	tons/year
EF =	0.002758	U = 10 mph & M = 2%	Fugitive Emissions =	2.76	tons/year
EF =	0.004672	U = 15 mph & M = 2%	Fugitive Emissions =	4.67	tons/year
EF =	0.006790	U = 20 mph & M = 2%	Fugitive Emissions =	6.79	tons/year
EF =	0.009076	U = 25 mph & M = 2%	Fugitive Emissions =	9.08	tons/year
EF =	0.000635	U = 5 mph & M = 3%	Fugitive Emissions =	0.63	tons/year
EF =	0.001563	U = 10 mph & M = 3%	Fugitive Emissions =	1.56	tons/year
EF =	0.002648	U = 15 mph & M = 3%	Fugitive Emissions =	2.65	tons/year
EF =	0.003849	U = 20 mph & M = 3%	Fugitive Emissions =	3.85	tons/year
EF =	0.005145	U = 25 mph & M = 3%	Fugitive Emissions =	5.14	tons/year
EF =	0.000424	U = 5 mph & M = 4%	Fugitive Emissions =	0.42	tons/year
EF =	0.001045	U = 10 mph & M = 4%	Fugitive Emissions =	1.04	tons/year
EF =	0.001770	U = 15 mph & M = 4%	Fugitive Emissions =	1.77	tons/year
EF =	0.002573	U = 20 mph & M = 4%	Fugitive Emissions =	2.57	tons/year
EF =	0.003439	U = 25 mph & M = 4%	Fugitive Emissions =	3.44	tons/year
EF =	0.002956	U = 5 mph & M = 1%	Fugitive Emissions =	2.96	tons/year
EF =	0.007278	U = 10 mph & M = 1%	Fugitive Emissions =	7.28	tons/year
EF =	0.012329	U = 15 mph & M = 1%	Fugitive Emissions =	12.33	tons/year
EF =	0.017920	U = 20 mph & M = 1%	Fugitive Emissions =	17.92	tons/year
EF =	0.023951	U = 25 mph & M = 1%	Fugitive Emissions =	23.95	tons/year
EF =	0.007800	U = 5 mph & M = 0.5%	Fugitive Emissions =	7.80	tons/year
EF =	0.019206	U = 10 mph & M = 0.5%	Fugitive Emissions =	19.21	tons/year
EF =	0.032536	U = 15 mph & M = 0.5%	Fugitive Emissions =	32.54	tons/year
EF =	0.047291	U = 20 mph & M = 0.5%	Fugitive Emissions =	47.29	tons/year
EF =	0.063207	U = 25 mph & M = 0.5%	Fugitive Emissions =	63.21	tons/year
AVE=	0.011279			11.28	tons/year
					0.000566%

APPENDIX D
LIST OF ACRONYMS

LIST OF ACRONYMS

PM_{2.5} – Particulate matter having a diameter equal to or less than 2.5 microns.

PM₁₀ – Particulate matter having a diameter equal to or less than 10 microns.

SO₂ – Sulfur dioxide.

NO_x – Oxides of nitrogen.

USEPA – United States Environmental Protection Agency.

MDEQ – Michigan Department of Environmental Quality.

GLC – Ground level concentration.

NAAQS – National Ambient Air Quality Standards.

HMI – High modeled impact.

NESHAP – National Emission Standards for Hazardous Air Pollutants.

EGU – Electric generating unit.

BTU – British thermal unit.

MMBTU – Million BTU (M – Roman numeral for 1000).

CEMS – Continuous emission monitoring system.

PRB – Powder River Basin (coal).

PSD – Prevention of Significant Deterioration (attainment area).

BACT – Best Available Control Technology (attainment area).

LAER – Lowest Achievable Emission Rate (non-attainment area).

SCR – Selective Catalytic Reduction.

TAC – Toxic air contaminants.

NSR – New Source Review.

ROP – Renewable Operating Permit.

NPDES – National Pollutant Discharge Elimination System.

MGD – Million gallons per day.

**Items forwarded to the
City of Manistee Planning Commission
at the March 25, 2004
Worksession relating to the
Manistee Saltworks Development Corporation**

Letter from John Gretzinger dated 3/18/04 RE: Planning Commission Issues

Letter from John Gretzinger dated 3/18/04 RE: Environmental Impact of Tondu Application

Correspondence:

Testimony of Williams Brooks, 385 River Street, Manistee

e-mail from Charles O'Brien, 15400 Coates Hwy., Brethren

Letter from Daniel W. Behring, 3695 Lakeshore Drive, Manistee

Barbara Bernier, 2520 Manistee Street, Manistee

Jim Sluyter, 3480 Potter Road, Bear Lake

Copies of Post Cards in Support submitted by Meagan Kempf 3/23/04

David Kamaloski, 483 Oxford Ct, Manistee w/attachment

Kurt Edenburn, 2857 Old Maple Road, Manistee

Douglas R. Jackson, 3211 Applewood, Midland

Elaine McWatt, 730 Harbor Drive, Manistee

e-mail from Meagan Bobier Kempf

Michael Bajtka, 2405 Nelson Street, Manistee

Jim Maturen, Michigan Wild Turkey Hunters Association, 4111 Wild Turkey Trail, Reed City

Environmental Issues of Concern with Regard to Construction and Operation of the Northern Lights
Power Plant; Powell & Associates, Robert Powell

NANTZ, LITOWICH, SMITH & GIRARD

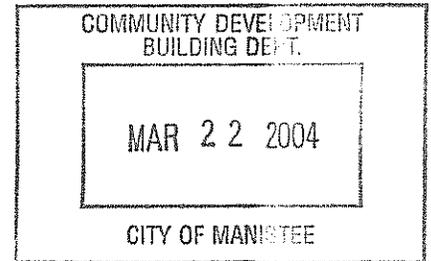
ATTORNEYS AND COUNSELORS

A Professional Corporation

2025 East Beltline, S.E., Suite 600, Grand Rapids, Michigan 49546 • (616) 977-0077 • Facsimile (616) 977-0529

JOHN H. GRETZINGER
Direct Dial: (616) 954-2546
Email: john@nlsg.com

March 18, 2004



Mr. Jon Rose
Community Development Director
City of Manistee
70 Maple Street, P. O. Box 358
Manistee, MI 49660

Re: Planning Commission Issues

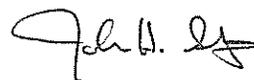
Dear Mr. Rose:

The Manistee Planning Commission is composed of nine members. Under Section 3.5 of the By-Laws of the Manistee City Planning Commission, "Five members shall constitute a quorum for the transaction of business and the taking of official action for all matters except for the adoption of a master plan, or any part of a master plan. Under this provision, action can be approved by a majority vote of those present when a quorum of five is present. This is consistent with the general rule that a majority vote of members attending a meeting at which a quorum is present can transact business in the absence of a specified higher vote requirement. See, 1977 OAG No. 5238 (November 2, 1977). Accordingly, it will take three votes to approve an action if 5 members are present; 4 votes if 6 or seven members are present; and 5 votes if 8 or 9 members are present. In the event that a member abstains, that member will be counted as being present for purposes of a determining if a quorum is present but not for determining if a majority has approved a particular action.

If you have any further questions regarding this issue, please contact me.

Very truly yours,

NANTZ, LITOWICH,
SMITH & GIRARD



John H. Gretzinger

JHG/λ

NANTZ, LITOWICH, SMITH & GIRARD

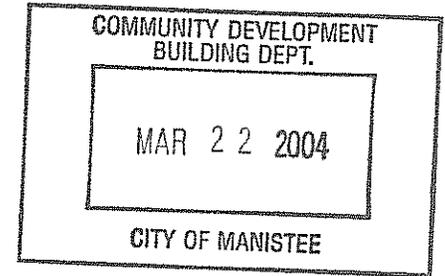
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JOHN H. GRETZINGER
Direct Dial: (616) 954-2546
Email: John@nlsg.com

March 18, 2004



Mr. Jon Rose
Community Development Director
City of Manistee
70 Maple Street, P. O. Box 358
Manistee, MI 49660

Re: Environmental Impact of Tondu Application

Dear Mr. Rose:

The City of Manistee Planning Commission is presently considering a special use permit to allow the Tondu Corporation to construct a coal-fired power plant. Under Section 8609 B, one of the standards to be considered is whether the proposed use is "reasonable and designed to protect the health, safety and welfare of the community." Section 8610 further provides that special use permits may be granted with additional requirements imposed by the commission, provided that these additional requirements are rationally related to a valid permit criteria. One of the common concerns raised in the public comments is that mercury emissions from the proposed coal fired power plant may adversely impact the health of individuals living in the City of Manistee and surrounding areas.¹ You have requested our opinion regarding whether the City of Manistee can impose environmental restrictions as a condition of the approval of this special use permit.

As a general rule, "where state law expressly provides that the state's authority to regulate in a specified area is exclusive, municipal regulation in the same specified area is preempted. *People v Llewellyn*, 401 Mich 314 (1977). Michigan has adopted the Natural Resources and Environmental Protection Act (NREPA) which regulates many aspects of environmental concern. Part 55 of the NREPA is a comprehensive air pollution control statute which authorizes the DEQ to issue rules to establish standards for ambient air quality and to issue permits to regulate permissible emission standards. Section 5542(1) provides however that:

- (1) Nothing in this part or in any rule promulgated under this part invalidates any existing ordinances or regulation having requirements equal to or greater than the minimum applicable requirements of this part or prevents any political subdivision from adopting similar provisions if their requirements are equal to or greater than the minimum applicable requirements of this part. MCL 324.5542(1).

¹ The current permit issued for the Filer City plant has no restrictions on mercury emissions.

This section makes it clear that state regulatory provisions regarding air pollution were not intended to be exclusive. See, 1998 OAG 6992 (August 13, 1998) where the Attorney General held that "federal and state air pollution control laws preempt local air pollution ordinances only to the extent that such ordinances are less stringent than corresponding federal and state requirements. The area of air pollution control is therefore different from water pollution control, where the state intends to have exclusive control. See, *City of Brighton v Township of Hamburg*, __ Mich App 2004 (Case No. 234703, January 15, 2004).

In view of these factors, it is our opinion that the City of Manistee is not prevented from regulating air pollution as long as its standards are more stringent than those required by the state or federal government. This regulation can take the form of a condition to a special use permit, if the Planning Commission considers that such a condition is reasonable and designed to protect the health, safety and welfare of the community. The basis for any standards imposed would however be required to be supported by appropriate record evidence. As an alternative, it could also rely upon the current DEQ permitting process to create such protections. In this regard, it should be noted that while power plants are permitted uses in the area under consideration, power plants come in many different types with coal fired, oil fired and natural gas fired plants all having different levels of environmental risks.²

It should be noted that there are no current state or federal standards for the emission of mercury, which was defined in a regulatory finding of the EPA published on December 20, 2000 as being "highly toxic, persistent, and bioaccumulates in food chains." This regulatory finding noted that "Fish consumption dominates the pathway for human and wildlife exposure to mercury." See, 65 FR 79825. As a result of this finding, the EPA determined to regulate coal and oil fired electric utility steam generating units for mercury emissions.

On January 30, 2004, the EPA issued a notice of proposed rulemaking under Section 112 of the Federal Clean Air Act (CCA) to set national emission standards for mercury for new and existing coal fired electric utility steam generating units. That proposed rule would require these plants to meet certain hazardous air pollutant emissions standards, because exposure to mercury "above identified thresholds has been demonstrated to cause a variety of adverse health effects." Coal fired plants for which construction begins on or after January 24, 2004 will be required to meet more strict standards than existing plants. These standards also differ based upon the type of fuel source to be burned (Bituminous, subbituminous, lignite, IGCC or coal-refuse fired).

² There are different levels of risk within coal fired plants depending upon the type of coal to be burned.

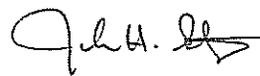
These rules are presently in a comment period through March 30, 2004, and a final rule is expected to be implemented prior to December 15, 2004.

These proposed rules also confirm that a state can adopt more stringent standards if that state determines that such regulations are necessary. The proposed regulation also addressed the concern that "Mercury emissions from power plants sometimes are deposited locally nears the plant. Nearby lakes may be a source of fish consumption for recreational/subsistence fisherman, and thus local Hg deposition in nearby lakes could be a source of what are called hot spots. In this discussion, we are assuming that a power plant may lead to a hot spot if the contribution of the plant's emissions of Hg to local deposition is sufficient to cause blood levels of highly exposed individuals near the plant too exceed the Rfd." The EPA assumed that the states would have the ability to address local health based concerns. In this regard, the Michigan DEQ has in place permitting procedures that will take into consideration health-based screening and is requiring Tondu to submit information on this issue as part of the permitting process. Reliance upon this permitting process may adequately protect City interests.

If you have any further questions regarding the authority of the Planning Commission to impose conditions to the special use permit relating to air quality issues, please contact me.

Very truly yours,

NANTZ, LITOWICH,
SMITH & GIRARD



John H. Gretzinger

JHG/\

To the Manistee City Planning Commission and
Manistee City Council

Testimony of William Brooks, 385 River Street, Manistee, MI 49660

Re: Application for Special Use Permit by Manistee Saltworks Development Corporation

Thank you the opportunity to present written testimony addressing the Special Use Permit requested by the Manistee Saltworks Development Corporation to construct a 425 megawatt coal-fired plant on the former General Chemical site in the City of Manistee.

I again want to especially thank the Commission members for the diligence and patience you have demonstrated in addressing the issue before you and for taking the time to listen to countless hours of testimony during this public hearing process.

Because of its sheer size and complexity, the Project before you is probably the most important decision the City of Manistee has faced in several decades. As the City's Master Plan recognizes, the City is at a cross-roads in its development and this Project - again, because of its size and complexity - has the potential to alter and define the character of the City of Manistee for some time.

Like you, I have spent literally hundreds of hours gathering and reviewing documents, including:

- * Documents provided the Applicant to the Commission (i.e. Application for Special Use Permit; Environmental Assessment; responses to questions posed by the Planning Commission or its consultants);
- * Documents prepared by the Applicant which have only recently been provided to the Commission or its consultants (i.e. Application for Air Permit);
- * Documents discussing the nature of the applicant's relationship/negotiations with other entities in connection with this Project that were obtained pursuant to Freedom of Information Act Requests to various public entities (i.e. negotiations between the Applicant and the City of Manistee regarding Community Service Fee; Phase I Business Plan prepared by Tondou Corporation for the Northern Lights Project; contractual agreements and reports describing the Applicant's relationship with the Michigan Public Power Agency (MPPA) and Michigan South Central Power Agency (MSCPA));
- * Documents referenced (but not provided) in the Applicant's Environmental Assessment detailing environmental/contaminant issues on the General Chemical site (Phase I Environmental Assessments; Baseline Environmental Assessments);
- * Other environmental reports not identified and studies relating to environmental controls and impacts of emissions from coal fired electric power plants (i.e. EPA Proposed Mercury Regulation; background information at www.epa.gov/mercury; Draft Wisconsin Mercury Sourcebook; Consumers Energy "Report on First Periodic Fish Contaminant

Monitoring for Au Sable, Manistee and Muskegon River Hydroelectric Projects -
Summary of 2000/2001 Data and Comparison with 1990 License Application Data”);
* Reports prepared by the Little River Band’s biologists and consultants.

Over the last several months as I’ve tried to understand the issues related to this Project, I have had the benefit of being able to consult with numerous experts, including environmental scientists, biologists and environmental attorneys. Even with all of those resources, our efforts to obtain documents from relevant agencies, review and analyze that information and draw any conclusions related to this Project have been taxed. If anything, our review of this information has only raised more questions. I can only imagine that the Planning Commission is facing similar concerns as it attempts to carry out its responsibilities within the time remaining within which you are required to render a decision on the current application before you.

A. THRESHOLD LEGAL QUESTIONS THAT MUST BE ANSWERED FOR THE PLANNING COMMISSION.

Before discussing the specific reasons why, based upon the record before the Planning Commission, this applicant has failed to meet its burden of demonstrating that the conditions for granting a Special Use Permit are met, I want to address a number legal questions which I believe must be answered for the Planning Commission as a matter of record in rendering its decision on this Application.

First, attorneys for Citizens for Responsible Development have raised the issue of whether approval of this Project, which will become part of the infrastructure for municipal utilities requires amendment of the City’s Master Plan.

It is has been suggested that no amendment is needed because power plants are authorized uses under the Industrial Zoning classification.

However, the requirements of the Municipal Planning Act recognize that there is a critical distinction between private, industrial projects and public utility projects. To put this issue in context, I’d ask the Commission to consider what their answer to this question would be if, for example, the Michigan Public Power Agency put its name on the application (as opposed using a private, developer as a proxy) or if another municipality was proposing to build a regional waste water treatment plant in a location not identified in the Master Plan?

We believe the Planning Commission must, in rendering its decision, **on the record**, on the following questions:

1. Would a power plant owned in whole, or in part, by the Michigan Public Power Agency or its constituent municipal utilities, constitute public utility facilities as defined in the Municipal Planning Act?

2. Would approval of such a project require amendment of the Master Plan in accordance with the Municipal Planning Act?

Second, attorneys for Manistee Citizens for Responsible Development have provided the Planning Commission with a letter which cites legal authority which mandates that the Commission independently evaluate the environmental impacts associated with this Project and to apply community specific standards - both with respect to the Commission's determination as to whether the "use is reasonable and designed to protect the health, safety and welfare of the community" and by imposing conditions in any Special Use Permit which may impose more protective standards than those required under applicable Department of Environmental Quality (DEQ) and federal standards - or whether the Commission will defer to the determinations and standards of the DEQ or other permitting agencies.

The answer to this question is critical to guide the Planning Commission in several important areas: (1) how much contamination will the Applicant actually clean-up and remove from the General Chemical site?; (2) given the fact that mercury emissions are not currently regulated at the DEQ and EPA level - the EPA regulations cited by the Applicant are only "proposed" regulations and it will likely be several years before any final standards are adopted - will the Planning Commission **require** the Applicant to demonstrate and attain the 80% reduction in mercury emissions that the Tondu Corporation's representatives are claiming they are "committed to"?

B. THIS "USE" DOES NOT MEET THE STANDARDS FOR ISSUANCE OF A SPECIAL USE PERMIT?

While only certain aspects of this project are what triggered the Special Use Permit (SUP) requirement, your task is to determine if the proposed "use" - meaning a 425 MW coal plant - meets the standards for issuance of a SUP.

8609. Special Use Permit Standards

1. A. Within sixty (60) days following the receipt of a complete application (unless a formal extension is mutually agreed to between the applicant and *Commission*), the commission shall either grant or deny the application. The decision shall be in writing and reflect the reasons for the decision.

B. The general standards for determining if a Special *Use* Permit is granted or not are:

1. Is the *use* reasonable and designed to protect the health, safety and welfare of the community,
2. Is the *use* consistent with the intent and purpose of the Land *Use* District,
3. Is the *use* compatible with adjacent land uses,
4. Is the *use* designed to insure that public services and facilities are capable of accommodating increased loads caused by the land *use* or activity, and

5. Does the *use* comply with all applicable regulations of this Ordinance.
6. Does the *use* comply with all specific standards found in the respective Land *Use* District, Section 1601 *et. seq.*, and

As the Planning Commission is aware, it is the Applicant for a Special Use Permit who bears the burden of proof and who must produce the documentation demonstrating that its proposed "use" meets the standards prescribed in the Ordinance.

With a project of this magnitude, one would expect an applicant to produce volumes of documentation to assist the Planning Commission in making this determination. **Detailed documentation and analysis is also essential to permit the Commission to impose appropriate conditions on any SUP that is approved - conditions which assure that the "use is reasonable and designed to protect public health, safety and welfare" and the "use is designed to insure that public services and facilities are capable of accommodating increased loads"**.

It appears that this Applicant has played what can only be described as a game of hide-and-seek with the facts. This Applicant has failed to provide the Planning Commission with critical information that the Commission would need to properly carry out its responsibilities under the City's Zoning Ordinances with respect to a project of this size with such broad-ranging impacts.

A more cynical person could surmise that the Tondu Corporation was attempting to withhold information that would assist the Planning Commission in its effort to identify the questions/issues it should be concerned with and, if permit approval is warranted, to impose the appropriate conditions on the issuance of that permit. While that strategy certainly makes business sense for the Applicant, it handicaps the Planning Commission in its ability to prescribe conditions on the SUP approval which may increase the Project costs for the Applicant.

I have had the benefit of receiving chronological responses to Freedom of Information Act requests and so I know what documents have been part of the Planning Commission's records on this application.

It is quite disturbing to me that, despite the large number of questions submitted by Planning Commission to this applicant - including a request for an environmental assessment, this applicant has provided very little information - or at least, incomplete/non-responsive or misleading information to the Commission.

Much of this information, like the Phase I Report Mr .Tondu prepared for the City of Holland, the Application for Air Permit and other environmental reports, have been available since November 2003 or before but are only now being provided to the Commission and its staff and consultants. In addition, much of the information contained in these source documents contradicts the

statements Mr. Tondu has made to the Planning Commission.

I don't know if the Planning Commission and its staff have had the opportunity to review and digest this information; however, a review of the actual documents, as opposed to the conclusory statements and assurance provided by the Tondu Corporations in its power point presentations, raise serious questions which should be addressed and which **must** adequately answered in order approve this application.

Focusing just on just a few examples pertaining to two criteria for issuance of a Special Use Permit, I'd like to discuss why this applicant has failed to present an "complete application" which would permit the Commission to approve this application. At a minimum, the Planning Commission should deny this Application on the grounds that this Applicant has failed to carry its burden of producing sufficient documentation to permit the Commission to make an informed decision as to whether this Project meets the standards for issuance of a SUP. Perhaps more importantly, Commission members comments at the first Work Session to review this Application confirm that the Applicant's failure to provide detailed responses to questions previously raised by members of the Commission and public, will make it impossible for the Planning Commission to prescribe appropriate (and enforceable) conditions that might be included in any SUP that might be approved by the Commission.

I. Is the Use Designed to Insure that Public Facilities are Capable of Accommodating Increased Loads Caused by the Land Use or Activity?

The Tondu Corporation has continued to skirt the whole issue of whether the project, when completed will be owned by tax-exempt entities. Even at the Feb. 19th hearing Mr. Tondu continued to claim that he's shopping the power from this project to utilities/users all across the state.

In fact, documents obtained from the Michigan Public Power Agency demonstrate that Tondu has had an agreement to develop this project on behalf of municipal utilities and that this project would be wholly owned by the municipalities. A summary report prepared for the Holland Board of Public Works on November 17, 2003 note: "It is intended that the unit will fully owned by the participating municipal agencies. Tondu will not have an ownership interest in the plant. Rather, Tondu will have a thirty-year purchased power contract for two hundred megawatts." (Source: Holland Board of Public Works, Power Resources Department, "Base Load Resource Options Report", November 17, 2003) Other documents confirm note that: "According to Tondu's attorney, the current ownership structure will not require the Project to pay property taxes. Tondu does not intend to discuss this issue with the local government officials until the MPPA and MSCPA have finalized their agreement with Tondu." (Northern Lights Project Independent Engineering Review of Phase I Project Development Activities, R.W. Beck, Inc., 11/12/03)

You have heard testimony from others concerning the are significant, unanswered questions about the extent to which City public services (fire; emergency; wastewater; roads) will be impacted by

this project and the additional costs that will be incurred by the City: while it is up to the City to negotiate the amount of the community service fee it is this Planning Commission's responsibility to determine if the level of services that can be provided by those fees are reasonable (and whether the impact on public health, safety and welfare acceptable) given this project's anticipated impacts.

In a December 29, 2003 letter to the Tondu Corporation, City Manager, Mitch Dietsch, noted - and I quote: **"By its nature and size, the proposed Northern Lights Project will impact every department in the City of Manistee, along with all of the City's environs and citizens. These impacts will be both short and long term."**

In recent days, Tondu representatives have indicated that the project will offer a community service fee in the \$1 to \$1.5 Million Dollar range. More recently, the Tondu Corporation issued a Press Release promising a payment of \$2 Million Dollars and other enticements - but no enforceable commitments - attempting to sway public opinion (do doubt including the opinions of members of this Commission).

The Planning Commission should be aware that City officials have investigated the community service fees paid by other municipally-owned utilities in the State of Michigan. The payment proposed by the Applicant represents only about one-fourth of the amount City officials have requested. The analysis conducted by Manistee officials indicates that the average community service fee paid by comparable municipally-owned power plants is \$12,577.00 per megawatt, which would translate to a community service fee for Northern Lights Project of \$5,345,225.

Presumably the community service fees negotiated in other communities - while variable - reflect the measured analysis of the impact facilities such as these have on local services. Given the huge impact this facility will have on the future of this community, the City of Manistee should not accept less.

Commissioners are reminded that no impact analysis has been done to measure the actual burden this facility will place on City services (roads; bridges; fire department; emergency services) and what the cost will be to the City to provide/maintain the level of service this facility requires. The potential increased costs to the City's Fire Department and emergency response capabilities alone should give one pause.

If it has not done so to this point, the Planning Commission should request, and require, disclosure of the anticipated costs that the City's Fire Department would be required to absorb in order to adequately respond to risks associated with the huge amounts of coal and hazardous chemicals that would be stored at this facility. Mr. Tondu recently testified that the western coal he proposes to use at the Northern Lights facility "spontaneously combusts much more easily so you have to have higher safety requirements." (Deposition of Joseph Tondu, August 30, 2002, T.E.S. Filer City Station v. Township of Filer) City officials have explored the risks associated with this project and have received information other jurisdictions which the Planning

Commission should require be part of the record and considered in developing conditions for any SUP it may grant. Reportedly, City officials have been informed that the increased costs to the fire department alone will be approximately \$1 Million dollars.

Other impacts which may not have been considered relate to the huge volumes of waste steam from the plant's cooling towers. During winter months, steam from the cooling towers will increase icing on local roads near the plant, which will require additional sanding and other maintenance activities by the City and County Road crews.

The direct impact on the City's ability to accommodate increased loads to City services and facilities caused by the Northern Lights Project does not consider the possibility that any community service fees received from this project will also be offset by declines in property values.

Accordingly, the Planning Commission must deny this request for Special Use Permit because the Applicant cannot meet its burden of demonstrating that its proposed "use [is] designed to insure that public services and facilities are capable of accommodating increased loads caused by the land use or activity". For the same reason, the Commission must deny this Special Use Permit as the Applicant has failed to demonstrate that the "use [is] reasonable and designed to protect the welfare of the community."

II. The Applicant Has Failed to Demonstrate that the Northern Lights Project Is "Reasonable and Designed to Protect the Health, Safety and Welfare of the Community."

Since its November 20, 2003 Hearing, the Planning Commission has faced the monumental task of requesting, compiling and digesting a mountain of technical and other data related to the Northern Lights Project. The Planning Commission has submitted numerous questions to the Applicant, including requesting preparation of an environmental assessment. Incredibly, despite the massive size of this Project and numerous environmental issues raised by the Planning Commission, the Tondu Corporation produced only a thirteen (13) page "environmental assessment" document.

For the most part, the "assessment" submitted by the Applicant consists of self-serving, conclusory statements which did not respond to the questions raised by the Planning Commission in any meaningful way. Although the Applicant's response acknowledged that more detailed information was available from other sources (i.e. Air Permit or other DEQ files), the Applicant chose not to provide those documents to the document and, in nearly every case, failed to provide the Commission with even a summary of those documents ,

The Planning Commission's decision to retain independent consultants to evaluate some (but not all) of the environmental impacts associated with this project is laudable; however, it appears that the Planning Commission has only recently received critical documents detailing the

environmental impacts that have received so much attention.

This information is absolutely critical to the Planning Commission (and to the citizens who wish to provide input on this project) for 2 reasons:

First, this information is essential to permit the Planning Commission to decide if a Special Use Permit should be issued based on the standard which requires the Commission to determine if the proposed use is "reasonable and protects the public health, safety and welfare of the community", including the environmental and aesthetic values that define the City of Manistee.

Second, this type of documentation provides the Planning Commission with the information it needs to prescribe appropriate conditions on any Special Use Permit granted.

A Speaker at February 5th Public Hearing quoted the eloquent language which this Commission approved in Manistee's Master Plan, which speaks of preserving the environmental qualities and small town characteristics which define Manistee's identity.

A critical issue, which is raised in a letter from MCFRD's attorney to the Planning Commission is the extent to which the Commission intends to make independent judgments about these issues or the extent to which the Commission will simply defer judgments to the DEQ or other permitting agencies. We have referred the Commission to specific legal authority which mandates the Commission to independently evaluate all of these issues and to set standards and conditions that reflect community specific standards that may be stricter than those set by the DEQ.

The Planning Commission must remember that the DEQ/EPA standards represent compromises that are meant to apply state-wide. In reviewing this project, the Commission must ask whether the same emissions standards or other impacts that would be acceptable for a project in Detroit or Grand Rapids are appropriate in Manistee, in light of the Master Plan's emphasis on preserving Manistee's small town, victorian character and protecting the environmental qualities - which have greatly improved in recent years - that currently define Manistee.

The Planning Commission cannot simply condition the Special Use Permit on Tondou's receipt of various DEQ/EPA permits. The Commission has the right and obligation to impose conditions above and beyond those set forth in those permits in the exercise of its discretion to assure that community standards, as defined in part, in the zoning ordinance and Master Plan are met.

The Tondou Corporation's failure to provide the Planning Commission with vital information has impaired the Commission's ability to make an accurate and informed determination as to whether this project meets the standards for a Special Use Permit. Perhaps more critically, the Tondou Corporation's failure to provide this information to the Planning Commission makes it impossible

for the Commission to place appropriate conditions on any Special Use Permit.

A couple of examples will illustrate this point:

- a. The Tondu Corporation has consistently promoted this project on the grounds that they will clean up the contamination on this site and eliminate this "brownfield" site.

Clean-up of the contaminants on this site has clearly a major concern of the Planning Commission. The Commission has every right to expect that this Applicant will improve the site and not leave the City with a different kind of "brownfield" in 40 years. The Planning Commission has, on several occasions, asked the Applicant to describe what existing contaminants/environmental conditions exist on the site, and what clean-up activities the Applicant proposes to take. (See, e.g. Question #3 from the Planning Commission's Environmental Assessment Request)

Rather than provide the Commission with the information it requested, the Applicant merely referenced documents on file at Michigan DEQ. Notably, in response to the Planning Commission request that Applicant describe the type and level of contamination it was proposing to clean-up, Applicant provided no response except to admit that "numerous and specific environmental conditions do exist" on the site.

To date, the Applicant has provided no enforceable assurances to the Planning Commission that it will, in fact, clean up the contamination on the General Chemical site other than demolition of buildings/structures and removal of demolition waste. Statements made by representatives of the Tondu Corporation seem to confirm that the Applicant does not intend to clean-up most of the contaminated soil and groundwater contaminants that present the greatest environmental risks, and which limit the re-development potential of this site.

It is important for the Planning Commission to understand that the DEQ will not require the Applicant to remediate or clean up most of the existing contamination on this site. The Applicant has indicated that intends to conduct a Baseline Environmental Assessment (BEA) after it receives the Special Use Permit. The purpose of a BEA is to identify contamination to protect a new owner from having to assume clean up costs for pre-existing contamination. In all likelihood, the DEQ will allow the Tondu Corporation to leave most of the existing contamination on-site without liability.

Much of the contamination that makes the General Chemical site a Brownfield will still be there when this power plant reaches the end of its useful life in 30-40 years. Absent a letter of credit or establishment of a reclamation fund to require Tondu and the Municipal owners to fully reclaim this site following closure of this Project (including demolition of the 20 story power plant, cooling towers, 400 foot stack and other equipment) this site will pose a much larger redevelopment challenge.

Consistent with the Planning Commission's charge to ensure that a proposed use is "reasonable and protects the public health and safety", the Planning Commission has the authority to require the Applicant or any assignee of the Applicant's interest to take actions to actually remove contaminants from the site as a condition of the SUP.

The Planning Commission also has the authority to require the Applicant to take specific measures to prevent the release of contaminants during construction and during the time Project operates occupies the site; however, the Planning Commission can do neither without having all of the relevant information describing the nature of contamination existing on site and an analysis of the exposure/release pathways and risks associated with the activities the Applicant is proposing. I would urge the Planning Commissioners to review the list of issues and more detailed recommendations that have, or will be, provided by Robert Powell.

This Applicant has chosen not to conduct its own Baseline Environmental Assessment and has failed to provide the Planning Commission with the DEQ documents that are available (despite a very clear request for that information), leaving the Planning Commission without the information that would be necessary to impose appropriate conditions necessary to protect the public health, safety and welfare during the construction and operation of the Project. In addition, absent enforceable assurances from the Applicant that it will, in fact, resolve many of the contamination problems on this site, approval of the this SUP for this use is not "consistent with the intent and purpose of the Land Use District" or the City's Master Plan, which encourage industrial development which is more compatible with mixed use land use patterns.

- b. Secondly, the Applicant has provided incomplete or misleading information to the Planning Commission regarding air quality impacts.

As the Planning Commission is aware, the Applicant originally estimated that the mercury emissions from the Northern Lights Project would be approximately 420 pounds per year. That estimate is supported by documents contained in the Applicant's submission to the DEQ. (See attached Manistee Salt Works Development Corporation PC Boiler Trace Metals Emissions). The Applicant has recently claimed that it is committed to meeting the emissions standard proposed by the EPA and claims that it will reduce its mercury emissions by 80% to a projected 80 pounds per year.

This 80% reduction in mercury emissions to 80 pounds per year was emphasized by the Tondu Corporation's consultant, Mr. Del Rector of NTH Consultants, Ltd., during his February 19th presentation to the Planning Commission. Mr. Rector also made a number of factual assertions regarding the anticipated impact the emissions from this project would have on the health of local citizens and the environment.

Having had the benefit of reviewing the documents submitted by the Manistee Salt Works Development Corporation to the Michigan Department of Environmental Quality, as well as reports prepared by the U.S. Environmental Protection Agency and other agencies/organizations,

the statements made by the Applicant only raise more questions that I hope the Planning Commission and its consultants will review:

For example, despite the Applicant's unqualified assertion that it's mercury emissions will be reduced by 80% to *only* 80 pounds per year, the Applicant's supplemental submission to the DEQ in January 2004, states:

Earlier in December 2003, the EPA released the draft MACT standard for mercury emissions from Utility Boilers. The proposed emission limitations are based primarily on the type of coal that is used. The proposed emission limitation for the MSWDC project is equivalent to an emission rate of 80 pounds per year - excluding the potential mercury contribution from the reagents used to reduce SO₂ levels. This represents a *potential* mercury emission rate reduction of 340 pounds per year, compared to our initial estimate. MSWDC understands the need to meet the MACT standard and is committed to do so. This proposed emission limitation cannot currently be met using available control/reagent technology (as expressed in EPA's draft MACT proposal), and these technologies may or may not be available before this facility begins construction. In the event the proposed MACT emissions levels for mercury become less stringent in the final rule, as additional research data are generated and analyzed, MSWDC reserves the right to amend the issued Permit to Install for the mercury emission limitation consistent with the final rule.

Why does the Applicant state that it will achieve emissions reductions of 80% when its own documents state that those emissions "cannot currently be met"?

Why does the Applicant state that it is "committed" to meeting these emissions limits when its own application "reserves the right to amend" its Permit for "less stringent" emissions limits?

In fact, in documents submitted to the DEQ, the Applicant acknowledged that the very control/reagent technologies which the Applicant's consultant represented as meeting the new MACT standard - implying that these controls will achieve the 80% reduction in emissions to 80 pounds - will only achieve a 25% reduction in mercury levels.

The mercury removal achieved of the proposed new PC boiler will largely be dependent upon the combined performance of the SCR, FGD and fabric filter. These performances will be dependent on the flue gas chemistry generated by the sub-bituminous coal. Fuel mercury and chlorine composition for this power plant cannot be precisely determined over the life of the power plant at this time, but it has been estimated that the proposed combined control system will achieve 25% mercury removal efficiency.

(See, Permit to Install Application For One (1) 425 MW, Coal Fired Utility Power

Plant, Manistee Salt Works Development Corporation, September 10, 2003,
Section 7.3.3.5, pg. 59)

It should be emphasized that the Applicant's original estimate of 420+ pounds reflects this 25% reduction. (See document entitled "*Manistee Salt Works Development Corporation PC Boiler, Trace Metal Emissions*" and Meeting Notes from MDEQ Permit Review file)

Why was the Applicant and its consultant so unequivocal in their representations regarding mercury emissions when their own documents to the DEQ suggest that they will not meet the 80% emission reductions claimed, nor are they committed to those reductions.

Mr. Rector also cited a number of reasons why he believes the Planning Commission should not concern itself with the mercury emissions from the Northern Lights Project:

1. Mercury levels in fish most commonly caught and eaten by local anglers - citing walleye as an example - are below health advisory levels.

In fact, more recent data collected by Consumers Energy Company indicates that, in contrast to every other type contaminant measured (i.e. Dioxin, PCB's), mercury levels in most fish species tested on the Manistee River system - as well as other rivers in the Michigan - are increasing. In fact, although Mr. Rector is correct in stating that mercury levels in walleyes tested by MDEQ in the late-1990's were below the health advisory level of 0.5 ug/g, the walleye tested by Consumers Energy in 2000/2001 tested at or above the 0.5 ug/g level. (See, Consumers Energy Company Fish Contaminant Study Comparison of Contaminant Concentrations, 1990 vs. 2000/2001)

Mr. Rector also claimed that very little of the mercury emissions from the Northern Lights Project could be expected to present local health risks because 90-98% of emissions will be elemental mercury vapor as opposed to divalent mercury which would deposit locally. Mr. Rector also stated the elemental mercury emissions would harmlessly become "part of the global mercury cycle", seemingly implying that this represents something that should not concern the Planning Commission.

In fact, NTH Consultant's own submission to the DEQ acknowledges that EPA's Mercury Study Report to Congress requires that modeling analyses of local impacts for coal fired boilers of the size proposed for the Northern Lights Project, assume that 30% of the mercury emissions will be mercury in its divalent form. EPA's guidance documents require impact modeling to assume that only 50% of mercury emissions will be in the elemental vapor form.

NTH Consultants also acknowledges "should be more readily deposited in a local area through both the dry and wet deposition." Higher rates of deposition of the divalent vapor form of mercury is probably reasonable since the Applicant has previously acknowledged that the reagents used to reduce sulfur dioxide emissions will contribute the oxidation of elemental mercury to its divalent

form. Additionally, studies have shown that oxidation of elemental mercury to the divalent form also results from exposure to ozone and that the rate of oxidation of elemental mercury is higher when emissions occur over or near water bodies. Manistee County is known to be in a region with some of the highest recorded ozone levels.

These local environmental conditions are more important because the Applicant apparently requested, and received from the DEQ, a waiver from pre-construction air quality monitoring. To keep the magnitude of this project in perspective, it is worth pointing out that this single project will increase the total level of ozone causing NOx emissions and other criteria pollutants emissions from all industrial sources in Manistee County by an estimated 50-67%. Unfortunately, there is no baseline air quality or meteorological data specific to Manistee County or the City of Manistee with which to accurately estimate the impact this Project will have on local air quality.

Conclusions

You have been given the impossible task of having to make a decision based on incomplete, non-responsive and misleading information provided by this Applicant. Based on the information you have been provided by this applicant, I don't know how you can determine that this project meets the standards under the Zoning Ordinance. While it appears that the Commission was provided some of the more detailed environmental documents (i.e. Air Permit), the Applicants actions have left you with very little time to analyze that information. Additionally, other critical information concerning the type, amount and location of contaminants on the former General Chemical site and in the sediments that would be disturbed during dredging operations have still not been provided to the Commission.

At a minimum, I don't see how the Planning Commission or its consultants could, with any degree of confidence, be able digest the information it/they have only recently received and develop appropriate conditions for inclusion in any Special Use Permit that might be approved given the information you have been provided.

The magnitude of this project and the broad-ranging, long-term impacts this project will have on the community - for better or worse mandates that the Commission be given much more complete information and analysis. This is a \$700 Million Dollar project. It is only responsible to require the developer/proponent of a project of this magnitude to spend a few hundred thousand dollars to assure that local planning officials have all of the information they need to evaluate and weigh the impacts - both positive and negative - from a project of this magnitude. There are also companies out there - such as RW Beck, who did an analysis for the City of Holland - who can assist you in evaluating the information the Applicant provides you and can give you an unbiased assessment of impacts and assist you in developing appropriate conditions (if necessary) to mitigate any negative impacts.

Because the Applicant has not seen fit to provide you with the kind of detailed information one

would expect for a Project of this magnitude, the Applicant has not given you (or your consultants) enough time to properly evaluate the impacts associated with this Project. **More importantly, the Applicant's failure to provide you with the necessary documentation that a project of this magnitude warrants, has severely limited your ability to develop clear, technically appropriate and legally-binding conditions that would be necessary to assure that this Project can be developed consistent with the standards for approving a Special Use Permit and in accordance with the long-term vision for the City of Manistee described in the Master Plan.**

For these reasons, I urge you to deny the Manistee Salt Works Development Corporation's (a/k/a Tondou Corporation) request for a Special Use Permit.

To echo the words of one of the final speakers at last Thursday's Public Hearing, if the Michigan Public Power Agency does indeed want this project in Manistee, they will be back even if you deny the application submitted by the Tondou Corporation. Deny this application and require this Applicant or the Municipal power agencies behind this Project to come back with the kind of detailed information that you and the residents of this City need to make a truly informed decision. You deserve better and the City of Manistee deserves better.



*Handed to
Recording Secretary
at 3-18-04 Worksession*

Mitch Deisch

From: Jerry O'Brien [grampob@tc3net.com]
Sent: Friday, March 19, 2004 3:46 PM
To: Mitch Deisch
Cc: Jerry O'Brien
Subject: Northern Lights Power Plant Proposal

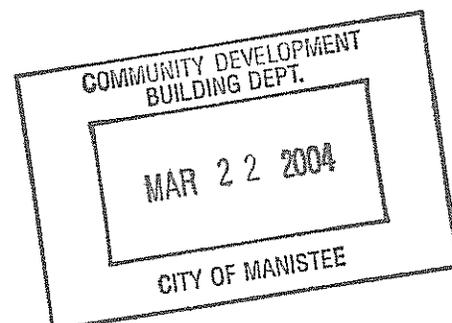
My name is Charles O'Brien, I have a home in Brethren, and I am opposes to allowing a coal fired power plant , or any other coal fired plant in the area.

I am not anti growth, and wouldn't object to a gas fired or oil fired power plant, something that wouldn't emit the pollutants into the air.

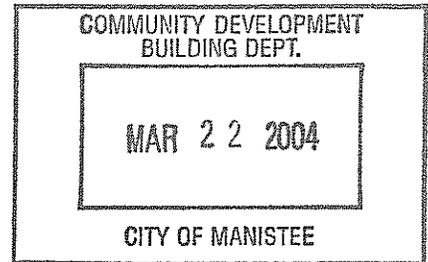
Pleas take into consideration the harm that would be done to this beautiful area by allowing this proposal to go forward.

Respectfully

Charles I'M Brien
15400 Coates Hwy.
Brethren, Mich
49619
Phone: 231-477-5435



TO: The City of Manistee Planning Commission
FR: Daniel W. Behring, Ph.D.
CC: City Council of Manistee
Little River Band of Odawa Indians
Manistee Citizens for Responsible Development
Aurora Association



After observing the last two work sessions, it appears to me, and by your own admission, you believe you do not have the data you need to address some of the questions that have been raised in your deliberations and that you require to be able to make a decision on the special use permit. Often the questions you raised, for example, asking for a reason for the height of the structures in the proposed plan, or asking for the procedures that will be used in the restoration of the General Chemical site, are questions that should have been raised and answered before the Planning Commission accepted the consultant's recommendation that the application was complete.

Other questions that you raise about length of bridge openings, the nature of chemicals stored on site, the frequency of coal fires, the latest technology for the control of mercury, the impact on property values, the potential threat of cooling water on the fishery, etc. have all been studied and addressed by citizens at your public hearings. They are resources that can be used for answers or for directing the members of the commission to the reputable sources from which data was retrieved.

It is apparent to me therefore, that a number of members of the planning commission may not have been able to digest and synthesize the amount of material and implications that the complexity of this application requires. By the chairperson's and Mr. Fortier's comments, both of whom have indicated that the task is just too complex, we may see why there has been so much deference to the consultant for direction, explanation and interpretation. The consultant, who is not a member of this community nor a member of the planning commission should not be involved in interpreting, summarizing, clarifying or negating the discussion of the planning commission, which has been done on a regular basis. It is the responsibility of the commission to demonstrate that they understand the issue and that they have fully addressed all the data that is before them. It also is not the responsibility of the consultant to attribute to the applicant what the applicant might do in situations the planning commission raises as concerns without knowledge of how the applicant would respond. This has been done regularly.

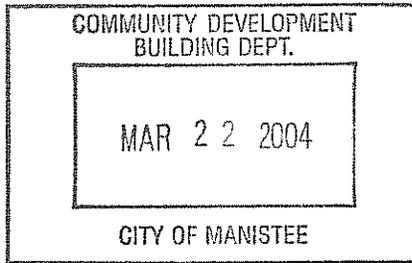
Because it appears to me while I observe the process and listen to the comments of the members of the commission that the commission is not prepared to make a thoroughly explored and considered decision by April 1, 2004, I ask that you immediately ask the applicant for an extension of the sixty day period of deliberation and that under the provisions of your by-laws, Section 4.3 Citizen

Committees, you immediately form an advisory committee from among the citizens of Manistee, to provide the knowledge and expertise you need to address this complex application. Personally, I would be willing to serve on such a committee and would be able to provide you with recommendations for qualified persons who have studied coal-fueled power plants, mercury controls, criteria air pollutants, the environmental load already on our air and water, economic impact issues, tax law, financial structuring of businesses, property tax revenue, etc.

Because of the seriousness of this decision that is before you and because of the concerns which I have expressed above, and because of my recommendation, I ask that I be informed of your action on my request.

Thank you for your consideration.

Daniel W. Behring
3695 Lakeshore Drive
Manistee, MI 49660



March 20, 2004

Barbara Bernier
2520 Manistee Street
Manistee, MI 49660

Manistee City Planning Commission
70 Maple Street
Manistee, MI 49660

RE: Tondu Northern Lights Coal Burning Power Plant

Manistee Planning Commission:

Enclosed is a copy of a "letter-to-the-editor" that I sent to the *Manistee News Advocate*. It was published on Friday, March 19, 2004.

Although we are residents of Filer Township, my family and I will certainly be affected by the enormous amounts of pollution produced by the proposed *Northern Lights* coal burning plant. Since this plant will negatively impact not only our entire community, but neighboring counties as well, I feel you have a greater responsibility on your shoulders than you realize.

For the health and safety of the people of Manistee and the surrounding area, and of children yet unborn, please do not allow this plant to be built in Manistee.

Sincerely,


Barbara Bernier

Cc:
Fred LaPoint, *Citizens for Responsible Development*
Gerard Grabowski, *Aurora Association*

Bernier

From: "Bernier" <bernier@manistee-net.com>
To: <dlbarber@pioneergroup.net>
Sent: Tuesday, March 16, 2004 12:43 PM
Subject: Northern Lights

March 16, 2004

Barbara Bernier
2520 Manistee Street
Manistee, MI 49660
Phone: 231-723-4823

Dear Mr. Barber;

I hope that Mr. LaPoint and the *Citizens for Responsible Development* have the same opportunity to visit Connie Josvai's fifth grade class as Mr. Tondou was given. And, when that happens I hope the News Advocate gives their visit front page coverage.

It is a shame that Mr. Tondou is allowed to use our children's innocence for his own means. It is a downright lie that the pollution spewed by a mammoth coal burning plant won't hurt them or the people of Manistee. Jim Tondou and Megan Kempf know they can make these statements because time is on their side. It will take time for the insidious effects of this assault on Manistee to become apparent. The minute particles that escape pollution control devices are breathed in and bury themselves deep within the lungs where they accumulate waiting to do their damage years from now.

We don't seem to see the connection between the diseases our loved ones acquire and the environmental pollution we live with. It is a shame that our air is not monitored here in Manistee, that would have ended this discussion, but what we don't know doesn't hurt us, right? Unfortunately, I believe that concern over lung disease and mercury poisoning will take a back seat to the one power we cannot deny --- the power of the Almighty Dollar. Money talks!

My prediction is that the city planners will accept Tondou's proposal "with conditions." Mr. Tondou knows that a list of conditions, and all that it promises, will eventually end up in a file drawer where no one will pay much attention to it in the future. He also knows that the EPA's guidelines are no real problem for him. What we need to realize is that they are so lax they offer no real protection to us.

If that were not enough, we should be aware that the DEQ is so understaffed, because of their own budget restraints, that once they rubber stamp this project, they won't have time or personnel to keep tabs on the day to day operations of this plant.

It has been said that the "activists" in Manistee are against everything. I believe that the "activists" are not against **positive** development and progress. It just seems, however, that Manistee is the dumping ground for every negative project that no other community wants. As I said, money talks. In our desperation it is easy to make mistakes. I hope the Manistee Planning Commission proves me wrong.

Sincerely,
Barbara Bernier
Phone: (231) 723-4823

JIM SLUYTER

3480 Potter Rd
Bear Lake, MI 49614
231-889-3216 • Email csafarm@jackpine.com

March 19, 2004

Manistee Planning Commission

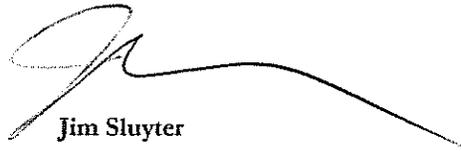
PO Box 358

Manistee, MI 49660

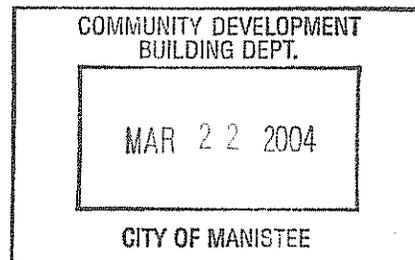
Good Day:

At the Planning Commission work session last night I heard one of the consultants suggest that in a conversation with the DEQ he was told that there is no better technology than that proposed by Tondy for burning coal for electricity in the Northern Lights Plant. In a conversation with Richard Smith, Traverse City Power and Light this morning on the radio program Points North, Interlochen Public Radio, he talked about circulating fluidized bed technology. This will allow for considerable reduction in pollutants and offers the option of burning multiple fuels in addition to coal (up to 30% biomass, or wood chips). This is a technology that, according to the European Network of Energy Agencies, "the technology is close to commercial availability for ordinary (world-traded bituminous) coal" and furthermore that "In North America, the 170 units operating in 1995 have a total capacity of 6,000 MW." With this technology available, or soon to be, the question of a better way seems to have an answer of "yes," at an added cost of about 10% according to Smith I urge you to look into the allegation from your consultant that there is no better way to design this plant..

Sincerely,



Jim Sluyter



NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

I support the development of the Northern Lights Project here in Manistee. This \$700 million investment will:

- Create much needed, high paying, permanent jobs and many more.
- Provide millions of dollars in added revenues for local businesses and local public services.
- Transform an unused, contaminated site into a productive, environmentally sound local asset.
- Be the cleanest coal power plant ever built in Michigan.
- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS: THE CITY OF GRAND HAVEN BUILT A COAL-FIRED PLANT IN THE MIDDLE OF THE GRAND RIVER IN THE EARLY '80'S. THERE TOURIST BUSINESS HAS ONLY GROWN IN THE YEARS FOLLOWING ITS INCEPTION.


NAME: Guy Finout

3600 PINE CREEK RD
ADDRESS: MANISTEE, MICH

723-5325
PHONE NUMBER:

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS: Manistee needs jobs! This is not a tourist town! We have ~~tourists~~ tourists for about 2 months of the year. If you live in this town year-round, then you know what I'm talking about.


NAME: Mari Lindeman

301 Third St
ADDRESS: 231-723-8061

PHONE NUMBER:

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS: I believe all the citizens of Manistee County will benefit from this project in some way or another. This county has been 20 yrs behind times for long enough. Open the gates and create some good paying jobs for the rest of the people that reside here year around.

NAME: Sam ONSTOTT ADDRESS: 1405 28TH ST Manistee PHONE NUMBER: 231-690-2440

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS: The coal boats going to the plant are a tourist attraction. People line the river banks to watch them. It will encourage other manufacturers to build in and around Manistee. Their taxes help keep the city & beaches nice for tourists, which creates more jobs. We need reliable jobs year around to keep Manistee a nice place to live.

NAME: Lela Clements ADDRESS: 885 Confield Rd. PHONE NUMBER: 723-3836

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS: I CAN'T TELL YOU HOW MANY TIMES I HAVE HEARD PEOPLE SAY.

Now THAT my "SON OR DAUGHTER," HAVE FINISHED SCHOOL THEY WILL BE LEAVING HERE TO FIND A JOB. THE REASON IS ALWAYS THE SAME. "WELL, THERE ARE NO GOOD PAYING JOBS HERE." NOW THERE IS AN OPPORTUNITY FOR SOME JOBS THAT PAY WELL ENOUGH TO TAKE CARE OF A FAMILY. DON'T MISS THIS EXCELLENT OPPORTUNITY.

Herb Buckner 2004 Merkey Rd. Manistee 231-723-5822

NAME:

ADDRESS:

PHONE NUMBER:

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS: I THINK THIS PLANT WILL BE GOOD FOR MANISTEE FOR THE JOBS IT WILL CREATE. MANISTEE CANNOT LIVE BY TOURIST AND CASINO TRAFFIC. THE LAWS NOWADAYS ARE SO STRICT, THAT THERE IS VERY LITTLE AIR CONTAMINATION. WE NEED THIS PLANT FOR THE JOBS AND THE ENERGY.

Phyllis Buckner 2004 Merkey Rd.

NAME:

ADDRESS:

PHONE NUMBER:

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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COMMENTS:

I FEEL THAT THE PEOPLE THAT ARE AGAINST THIS PLANT SHOULD DISCONNECT THEIR ELECTRICAL SERVICE. I THINK THAT SOME FEEL LIKE "I GOT MINE THE HECK WITH THE REST." OTHERS JUST WANT THE PROPERTY FOR THEMSELVES.

Robert Lindeman

NAME:

Robert Lindeman

1939 STEINBERG RD.

ADDRESS:

723-2823

PHONE NUMBER:

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS:

THIS IS A WIN, WIN DEAL FOR THE CITY AND PEOPLE LOOKING FOR A GOOD JOB. WE BETTER NOT LOSE THIS ONE. THIS IS BETTER HERE THAN IN LUDINGTON.

ROBERT SKIEAA

NAME:

295 7TH ST,

ADDRESS:

7236714

PHONE NUMBER:

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Be the cleanest coal power plant ever built in Michigan.
- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS:

PLEASE DON'T GIVE UP. WE NEED

THIS PLANT IN OUR COUNTY.

THANKS

JACK D. BALL

NAME:

2665 RED APPLE RD.

ADDRESS:

723-7466

PHONE NUMBER:

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Provide, clean, reliable, and affordable energy for Michigan citizens.

THIS IS WHAT THIS TOWN NEEDS

COMMENTS:

I am glad someone wants to add jobs to our area

James M Mahanick Jr

NAME:

386 4th ST

ADDRESS:

398 9249

PHONE NUMBER:

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS:

1 JOB MEANS ALOT

THE TOWN NEEDS THIS.

Jerome Thebault
NAME: **Jerome Thebault**

806 UNWEST - MANISTEE
ADDRESS:

723-3472
PHONE NUMBER:

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS:

*We lost 150 a jobs in 1981
Nobody cared how it turned.*

We need jobs

Jack Carlson
NAME: **Jack Carlson**

239 3RD AVE
ADDRESS:

Manistee
PHONE NUMBER:

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Be the cleanest coal power plant ever built in Michigan.
- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS:

This Town Needs Northern Lights Project

Reta Racine
NAME:

225 E. Polen Rd
ADDRESS: *Manistee, MI 49660*

231-723-5021
PHONE NUMBER:

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Provide millions of dollars in added revenues for local businesses and local public services.
- Transform an unused, contaminated site into a productive, environmentally sound local asset.
- Be the cleanest coal power plant ever built in Michigan.
- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS:

Ronald Gregorski
NAME:

1760 Vine St
ADDRESS:

723-2863
PHONE NUMBER:

Ronald Gregorski

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

I support the development of the Northern Lights Project here in Manistee. This \$700 million investment will:

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- Be the cleanest coal power plant ever built in Michigan.
- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS:

Joy Edmondson

NAME:

4417 Pine Creek Rd

ADDRESS:

Manistee, MI 49660

(231) 723-4736

PHONE NUMBER:

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Transform an unused, contaminated site into a productive, environmentally sound local asset.
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- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS:

I am for this plant to my mind
would like to work on this job.
and retire

Kurt Edmondson

NAME:

2857 OLD MAPLE RD.

723-6825

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

I support the development of the Northern Lights Project here in Manistee. This \$700 million investment will:

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- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS:

NORTHERN LIGHTS

Ed S Livingston 561 Mee St 723-7049
NAME: ADDRESS: PHONE NUMBER:

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Transform an unused, contaminated site into a productive, environmentally sound local asset.
- Be the cleanest coal power plant ever built in Michigan.
- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS:

Everyone wants electricity but nobody wants what is needed to make it. If our forefathers thought like that we still would be burning whale oil to see to read.

Roger Reckow 296 Rose Lane, Manistee 231-723-6654
NAME: ADDRESS: PHONE NUMBER:

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Transform an unused, contaminated site into a productive, environmentally sound local asset.
- Be the cleanest coal power plant ever built in Michigan.
- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS:

I am definitely for this plant. We sure do need some-
thing in this town.. They may as well hang a crepe on
each end of River St. Why are the outsiders having such
a big say about this.. They have not lived here all their
lives, as we here on top of the hill where the plant should
be. I hope we can get the power for our use. Good luck
Carol Gutowski

NAME:

ADDRESS:

PHONE NUMBER:

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Provide millions of dollars in added revenues for local businesses and local public services.
- Transform an unused, contaminated site into a productive, environmentally sound local asset.
- Be the cleanest coal power plant ever built in Michigan.
- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS:

I THINK THIS IS A WIN-WIN
DEAL FOR JOE & MANISTEE!!

NAME:

ADDRESS:

PHONE NUMBER:

ROGER G. SCHRAOER 1906 RAMONA 723-3148

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

I support the development of the Northern Lights Project here in Manistee. This \$700 million investment will:

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- Transform an unused, contaminated site into a productive, environmentally sound local asset.
- Be the cleanest coal power plant ever built in Michigan.
- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS: I live 2 blocks from where Tom will be - the factories here before never proved a problem until Tom wants to come here. The factory is more proper than these Lillian Bladzik 1515 Vine 723-2211

NAME:

Lillian Bladzik 1515 Vine, Manistee

PHONE NUMBER:

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Transform an unused, contaminated site into a productive, environmentally sound local asset.
- Be the cleanest coal power plant ever built in Michigan.
- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS:

ALL PROJECTS THAT HAVE COME TO MANISTEE, HAD BEEN OPPOSED TO SOME DEGREE. (OAKS CORRECTIONAL, AMBAR CHEMICAL BROMINE PROJECT, LITTLE RIVER CASINO) THEY WERE ALL APPROVED

NAME:

ADDRESS:

PHONE NUMBER:

CHRISTINE L. POLENCIEWICZ 716 PINE ST. MANISTEE 231-723-0314

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Transform an unused, contaminated site into a productive, environmentally sound local asset.
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- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS:

George Edmondson
NAME: **George Edmondson**

4417 PINE CREEK RD
ADDRESS:

231-723-4736
PHONE NUMBER:

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Transform an unused, contaminated site into a productive, environmentally sound local asset.
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- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS:

Denny Henderson

4031 High Bridge R

477-5561

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Transform an unused, contaminated site into a productive, environmentally sound local asset.
- Be the cleanest coal power plant ever built in Michigan.
- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS:

Manistee needs jobs!! Building this will bring business to restaurants, hotels, etc. My husband has been in 3 plant closings ^(in Manistee). We don't want to leave — ~~but~~ looking for jobs elsewhere. This will build Manistee w/ year round residents.

Irma Kaminski 357 4th St. 7232709
NAME: ADDRESS: PHONE NUMBER:

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Be the cleanest coal power plant ever built in Michigan.
- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS:

WE AGREE WITH THE ABOVE ISSUES. ↑

A GOOD MOVE FORWARD FOR THE CITY OF MANISTEE AND THE COUNTY!!

ALAN THOMAS 529 MAPLE ST. 723-3224
REGIS THOMAS MANISTEE PHONE NUMBER:

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Transform an unused, contaminated site into a productive, environmentally sound local asset.
- Be the cleanest coal power plant ever built in Michigan.
- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS:

We need more jobs for the people who LIVE in Manistee. Our children have to leave this lovely area to seek gainful employment elsewhere while those who have made their fortunes come here to retire. Please give careful consideration to the need of those who want to remain here and raise families.

NAME:

ADDRESS:

PHONE NUMBER:

Case P. Sullivan 418 Second St Manistee 23-0146

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS:

Joseph A. Pienta 500 5th Ave Manistee 723-8318

NAME:

ADDRESS:

PHONE NUMBER:

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Transform an unused, contaminated site into a productive, environmentally sound local asset.
- Be the cleanest coal power plant ever built in Michigan.
- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS: Good JOBS, GOOD PAY

GOOD for MANISTEE

NAME:

Gustad & Perkins 1761 Olson Road, Manistee

PHONE NUMBER:

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Transform an unused, contaminated site into a productive, environmentally sound local asset.
- Be the cleanest coal power plant ever built in Michigan.
- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS:

L

**John W. Long
102 Lighthouse Way N
Manistee, MI 49660-1598**

NAME:

ADDRESS:

PHONE NUMBER:

723 2195

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS:

Randy Lindeman *301 Third St* *723-8061*
NAME: ADDRESS: PHONE NUMBER:

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS:

I support this project completely
Lawrence White *1516 Hill Rd Manistee* *1-231-723-6316*
NAME: ADDRESS: PHONE NUMBER:
Lawrence White

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS:

Good Luck With The Project!

TEO MONTGOMERY

NAME:

441 2nd ST MANISTEE

ADDRESS:

398-0049

PHONE NUMBER:

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Be the cleanest coal power plant ever built in Michigan.
- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS: I fully support the project. The entire country is lacking in generated power and this will be a huge boost for the Manistee Area.

Andy Richards

Andy Richards

NAME:

1865 Blossom Trail

ADDRESS:

Manistee

723-8769

PHONE NUMBER:

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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COMMENTS:

MANISTEE has had Full time employees
Looking for permanent good paying industrial
jobs for our area. Now they have a
good opportunity to acquire good jobs and
now they don't want them.

My wife and I both support your project

STEVEN & SALLY BLANK 4020 SKOCEKAS Rd

NAME:

ADDRESS:

PHONE NUMBER:

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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COMMENTS:

LARRY LINDROTH

NAME:

PO BOX 69 EASTLAKE

ADDRESS:

MI. 49626

7236344

PHONE NUMBER:

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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COMMENTS:

Please don't come up!!

JEROME WRZESINSKI 700 MARLAWN DR
MANISTEE

JEROME WRZESINSKI 700 MARLAWN 723-4802
NAME: ADDRESS: PHONE NUMBER:

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS:

ONLY IN A LITTLE TOWN LIKE MANISTEE, CAN YOU
GET SO MUCH NEGATIVE IMPACT SO FAST. WHERE
WERE ALL THESE AMBASSADORS FOR THE CITY WHEN THEY
TURNED THE MOST BEAUTIFUL FORTY ACRES ON LAKE
MICHIGAN INTO AN INDUSTRIAL PARK? WE HAVE FOUR PLANTS
AND A RAILROAD NOW, I WELCOME ONE MORE!

JERRY DUCHON 476 4TH ST. MANISTEE 231-723-7350
NAME: ADDRESS: PHONE NUMBER:
OWNER OF
COLDWELL BANKER A.L.M. REALTY IN MANISTEE

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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COMMENTS:

We need jobs for the people in Manistee

NAME:

Mary Tiefenthal 255 1st St Manistee 723-9421

PHONE NUMBER:

Mary Tiefenthal 255 1st, Manistee

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS:

I support this project and feel that Manistee would benefit from the additional revenue and jobs.

NAME:

Mike Zimmerman 11477 N. Zip Rd Manistee 3982573

PHONE NUMBER:

Mike Zimmerman 11477 N. Zip Rd., Manistee

NORTHERN LIGHTS & MANISTEE — A WINNING PARTNERSHIP

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- Provide, clean, reliable, and affordable energy for Michigan citizens.

COMMENTS:

It would be nice to have an opportunity for better employment, a eye sore cleaned up, more money to the community. This will go on well past the construction phase. This plant will always give back.

Robert Carlson

704 High St.

398 0284

NAME:

ADDRESS:

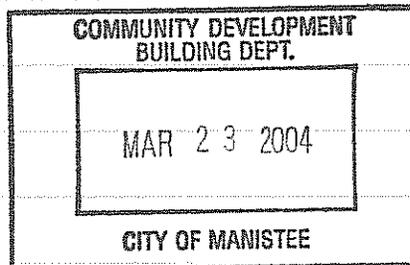
PHONE NUMBER:

3-23-04

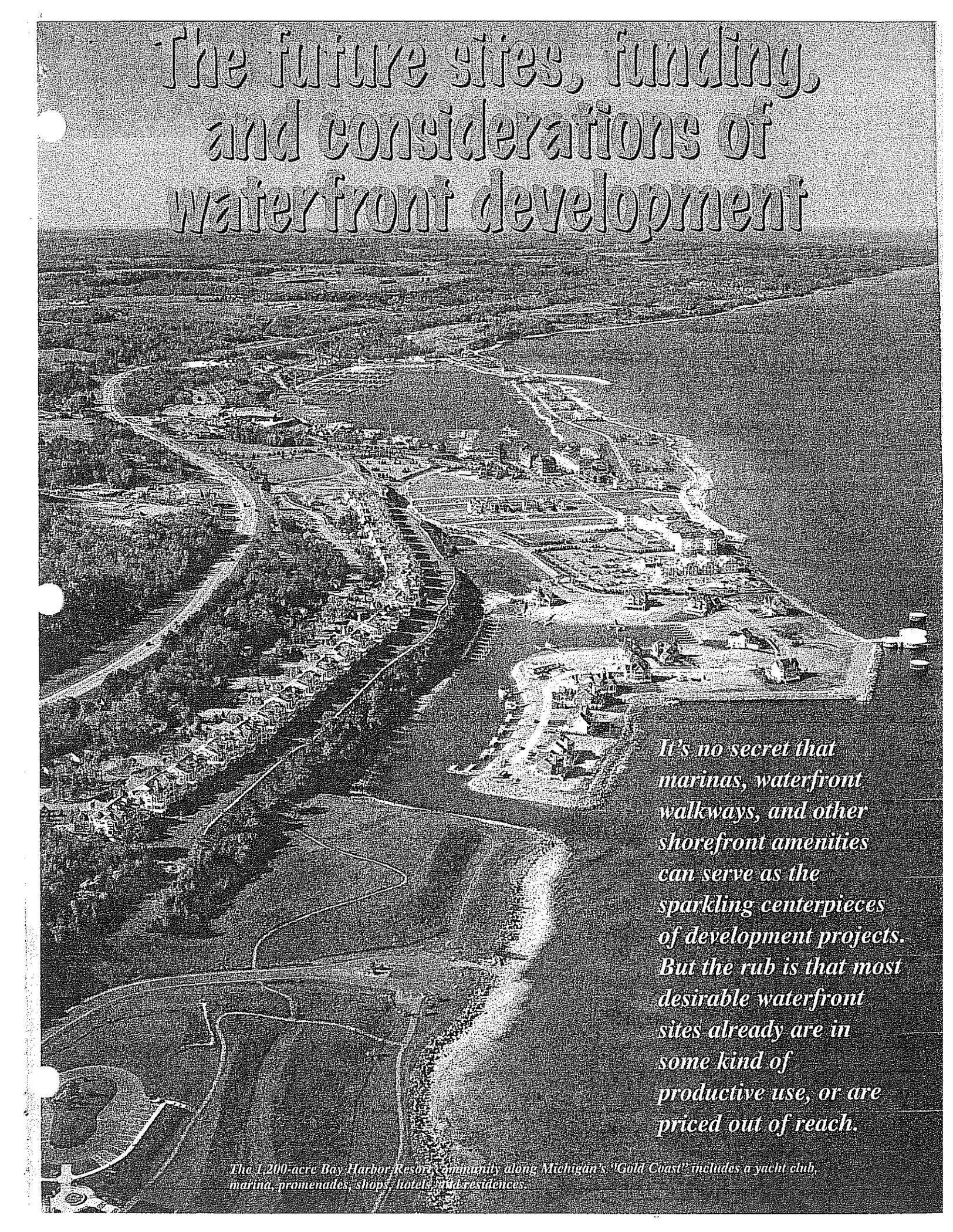
I would like the Planning Commission
to consider the attached article on
brownfield developments into review.

Thank you.

David Kamalaski
483 Oxford Ct.
Manistee MI 49668



The future sites, funding, and considerations of waterfront development

An aerial, black-and-white photograph showing a large-scale waterfront development project. The image captures a complex network of roads, walkways, and structures along a curved shoreline. In the foreground, there are several large, rectangular plots, some of which appear to be under construction or recently completed. The middle ground shows a dense cluster of buildings, including what looks like a hotel or resort complex. The background features a wide expanse of water, possibly a bay or harbor, with a few boats visible. The overall scene conveys a sense of active urban planning and infrastructure development in a coastal or waterfront setting.

It's no secret that marinas, waterfront walkways, and other shorefront amenities can serve as the sparkling centerpieces of development projects. But the rub is that most desirable waterfront sites already are in some kind of productive use, or are priced out of reach.

The 1,200-acre Bay Harbor Resort Community along Michigan's "Gold Coast" includes a yacht club, marina, promenades, shops, hotels, and residences.

BY FRED KLANCNIK AND
TINA LASSEN

Is it still possible to create successful developments along the waterfront? The answer is a resounding yes. The key is to look in unexpected places.

As railroads and highways steadily replaced waterways, cities large and small slowly turned their backs on waterfronts, leaving behind a clutter of ramshackle warehouses, derelict ports and other industrial remnants. Today, limited access, dilapidated neighborhoods, deteriorated marine structures, and overall neglect characterize many of these sites.

Despite the obstacles, these former industrial waterfronts present great opportunity. They not only offer available shoreline for redevelopment; successful waterfront projects can become the catalysts for greater improvements in an entire area.

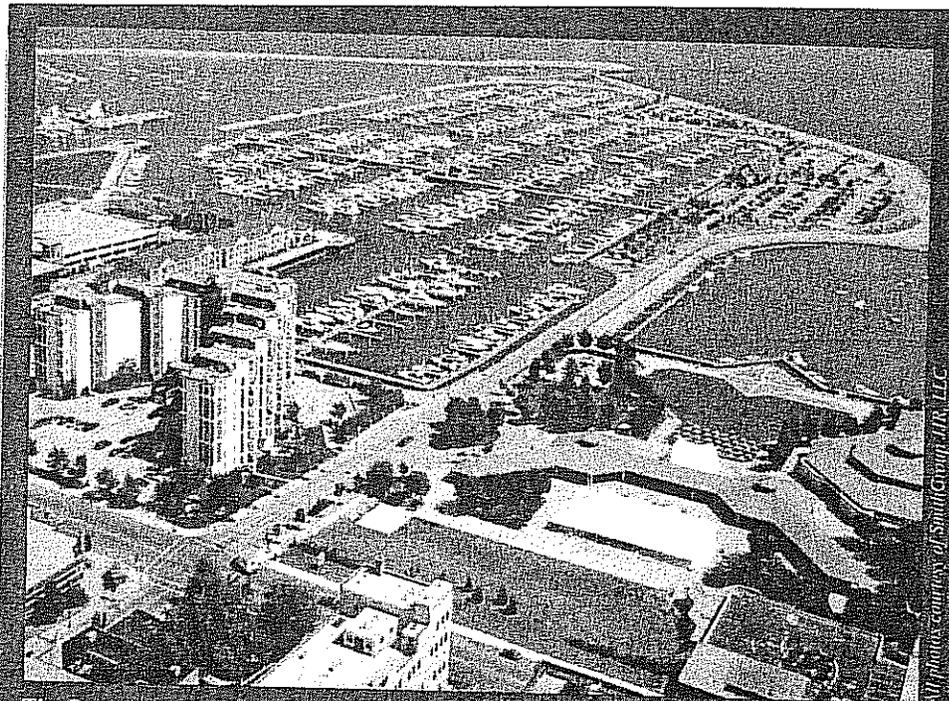
Racine: From ghost town to phenomenon

In Racine, Wisconsin, for example, declines in Great Lakes shipping had left much of the city's Lake Michigan waterfront a ghost town of vacant warehouses and rusting gas tanks. In the early 1980s, a waterfront master plan reinvented Racine's harbor area with a 921-slip marina and a two-acre festival plaza/park that links the waterfront to downtown.

It was a plan that has withstood the test of time. For more than two decades now, the response to development—encompassing Racine County's lakefront park, Reespoint Marina and the city's Festival Park—has been nothing short of phenomenal. The marina continues to operate at a high permanent occupancy rate, and offers transient boaters a place to spend the weekend, frequenting local restaurants and other businesses.

Boaters return again and again, pouring more than \$20 million into the local economy each year. Festival Park—which includes a 25,000-square-foot multi-purpose center and 400-foot colonnade—is perennially booked with community events, trade shows, and summer festivals. In-water boat shows have become major regional tourism events.

The \$25 million spent in public and private funds for the project served as valuable seed money, spurring more than \$200 million in private development along the Racine waterfront. New



The Downtown Racine Harbor redevelopment is a private/public sector venture including the 921-slip Reespoint Marina, 16 acres of park land, and the city's Festival Park, situated along a separate 12-lane boat launch basin.



Ocean Pointe, Oahu's newest master-planned community, features recreational amenities, including a 1,000-boat marina, a golf course, parks and walking paths.

housing now flanks Festival Park, several historic buildings have been renovated for business use, and the Case I-H corporate headquarters and other office complexes have been built within walking distance of the marina. More retail and service businesses have resulted in turn.

"The whole thing came together in an absolutely magnificent way," remarks Sam Johnson, Chairman Emeritus of S.C. Johnson Company of Racine, and a major catalyst for the downtown's redevelopment. "This is what can be done when dedicated members of the public and private sec-

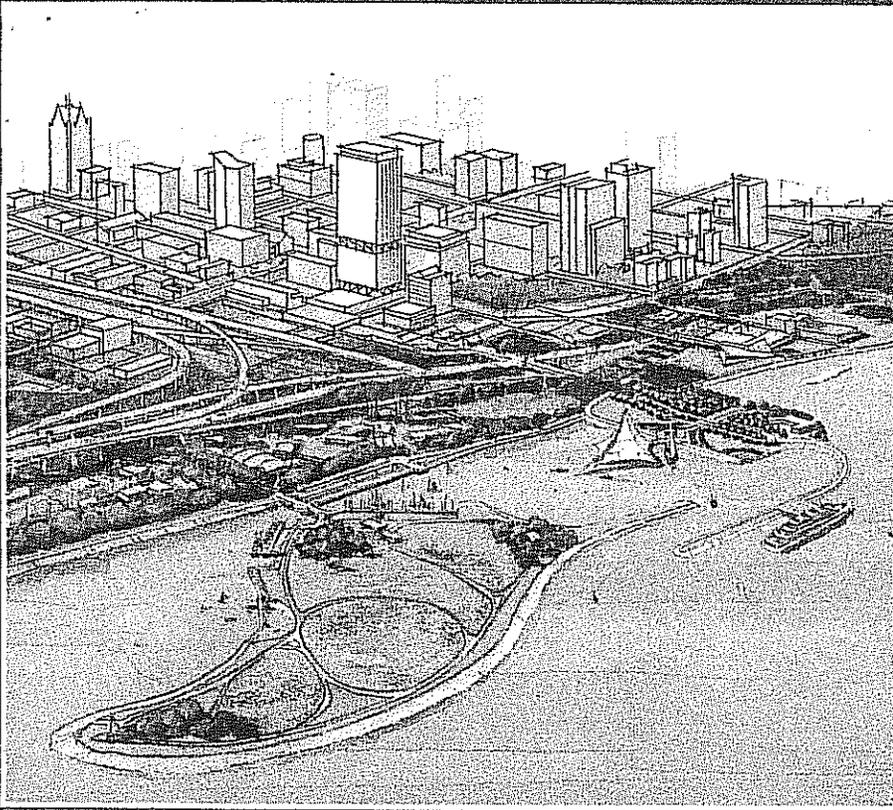
tors come together on a single objective and then go ahead and accomplish it."

Racine dramatically exemplifies the new frontier for waterfront development. Rather than looking at blighted, brownfield waterfronts as a hindrance, urban planning professionals should learn to view them as redevelopment diamonds in the rough.

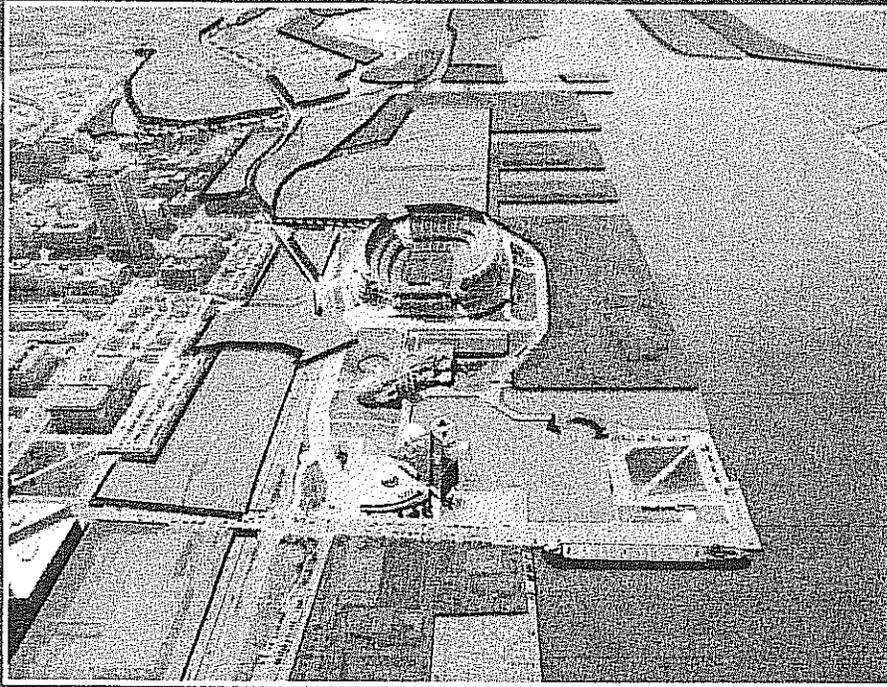
A new priority for states

It takes a shift in thinking to get past traditional definitions of what is and is not a viable site for a new marina. Most of the "good" waterfront is gone—natural harbors and other environmentally

ALL PHOTOS COURTESY OF SOUTHWEST LLC



Lakeshore State Park in Milwaukee, Wisconsin, is being designed with two boar basins accommodating recreational craft, historic schooners, cruise ships and visiting research vessels.



An ambitious plan is being developed for Cleveland, Ohio, in which its adjacent neighborhoods will be connected to the lakefront.

suitable shorelines already have been developed for commercial, residential, and recreational purposes. Today developers must consider lands previously thought to be undesirable or even those deemed “undevelopable.”

The good news is many of these sites are becoming more feasible for rede-

velopment. Cities such as Milwaukee and Cleveland are realizing that, in order to survive, they need to focus on opportunities for adaptive reuses of their formerly industrial waterfront sites. Federal and state agencies, too, are beginning to understand they must address the cleanup of these areas. As a

result, reclamation of blighted urban waterfronts is now a top priority in many states.

More government entities are addressing the development deadlock created by overlapping governmental jurisdictions, complex permit requirements, and fragmented land ownership. They are also relaxing the extremely tough clean-up standards for non-residential uses, and sometimes, they’re offering financial incentives to encourage property owners to take action in waterfront revitalization.

The challenge now is to take these sites and create waterfront developments that can be built and operated as profitable on their own. In many cases, well-designed marinas serve as catalytic projects that can make a difference in how a waterfront is perceived by the public. With a good plan, strong demand for waterfront recreation, and sophisticated design solutions, it can indeed be done.

Community is key

Since it’s never wise to develop any project in a vacuum, it’s perhaps most important to involve the community in waterfront redevelopment. Recent history has shown that people really care about their waterfronts.

Even when faced with obstacles such as poor access, and few attractions, people still seek out waterfront settings. This was exactly the case in San Pedro, California, a metro-Los Angeles port city that was the subject of a 2002 Urban Land Institute (ULI) advisory services panel report. “That visitors find their way there in the face of confusing access, poorly maintained physical structures, and virtually no attention to grounds maintenance is a testament to the powerful draw of the waterfront,” the panelists noted.

“This is a community that could really capitalize on its role as a gateway to the waterfront,” adds Ed Freer, a ULI panelist and principal designer with SmithGroup JJR, LLC. “With its history as a fishing village and commercial port, San Pedro is an example of a city that could build on its heritage with an expanded marina, and adjacent residential and commercial development.”

To move forward successfully with a waterfront project, the design must provide for plenty of public access, even in high-density areas. In Honolulu, the 1,100-acre Ocean Pointe Community includes plans for nearly 5,000 residential units. It also incorporates oceanside

public promenades, a 20-acre park, a small-craft harbor with launching facilities, and public parking. It is all centered around the community's focal point: a 1,000-slip marina.

Along with strong visual and physical access to the water, development plans should also link community residents to a waterfront project through early involvement in the planning process. Focus groups and stakeholder interviews serve a valuable role. As part of the conceptual framework for redeveloping an eight-mile stretch of Cleveland's downtown lakefront, public workshops drew more than 500 attendees in three neighborhoods—a testament to the value of that site to the city. For Ocean Pointe, the permitting and public-hearing process stretched out for more than 10 years, involving dozens of community meetings and approval from city, county, state and federal entities. It's wise, therefore, to build plenty of flexibility into waterfront master plans.

"Even after a decade of permitting, the Ocean Pointe planning and approval process has proven flexible enough to meet today's demands for a major recreation facility," acknowledges Nelson Lee, Executive Vice President for Haseko (Ewa), Inc., Honolulu, Hawaii, and the master developer for Ocean Pointe. "It's a unique success. I doubt such a project could ever be replicated again in Hawaii."

Community involvement provides a better understanding of local assets, needs and issues. It also empowers residents with a sense of ownership and involvement, turning them into allies for waterfront projects. Supportive local residents will be among the first to take a chance on a blighted area, by opening retail establishments, frequenting public spaces and adding invaluable life and vitality to a long-forgotten site—providing the momentum necessary to encourage further investment by the private sector.

Public/Private Partnerships

Community support and clear community benefits provide a strong foundation for public financing of marinas. With the expense required to clean up waterfront brownfield sites, public dollars are a key component of these projects. There is a trend toward combining the benefits of civic leadership and public funding available to municipal and state governments with the finan-

cial strength and flexibility of the private sector to produce a first-rate, large-scale project that has a positive effect on the surrounding community.

It is important to examine every potential source of funding. In many cases, public moneys fund infrastructure improvements like harbor and shoreline protection and roads, while private funding is spent on things like boat slips that can become a source of revenue. If properly structured, for each dollar spent by the public sector, more investment dollars can be used by the private sector for profitable real estate development. Once a project is operating, much of the original cost of public improvements can be recouped by project-related financing. This can include lease payments for land to the government entity and tax-incremental financing.

Under this public/private scenario, the shoreline typically remains open to

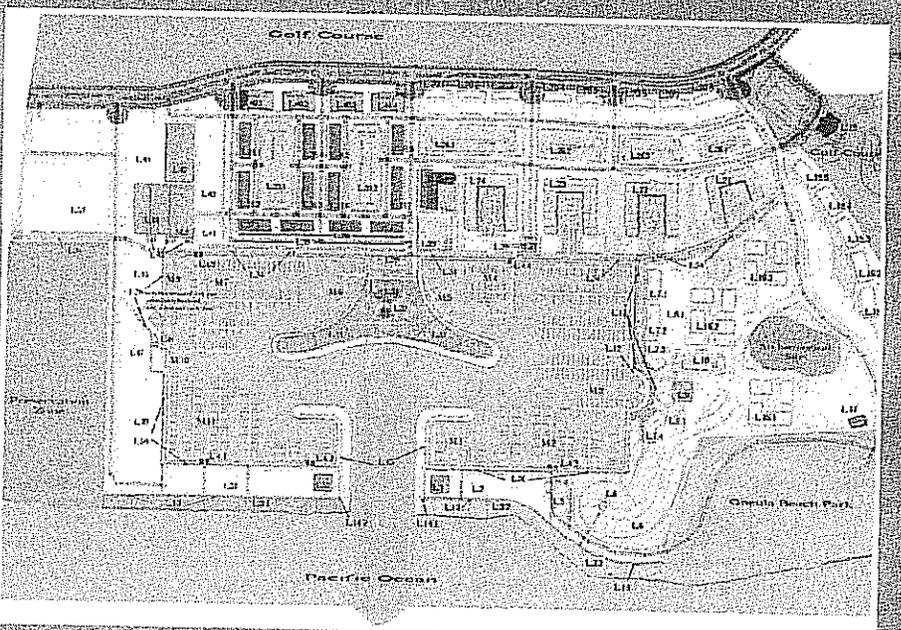
the public: Waterfront walkways often provide public access to the water's edge, and parks or plazas serve as public gateways to the project. Plans should incorporate creative solutions (such as gating, keyed entrances or parallel shoreline walkways) to delineate between public spaces and private areas in marinas.

Successful waterfront developments require careful cooperation between the design of public improvements such as parks, roads and promenades, and the design of privately financed projects such as marinas, housing, restaurants and shops. The architectural design of the individual projects should be harmonious with the rest of the development and, if possible, also respect the character of the surrounding neighborhood. In Bay Harbor, Michigan, the Bay Harbor Resort Community blends into the century-old Little Traverse Bay resort area by mirroring the area's

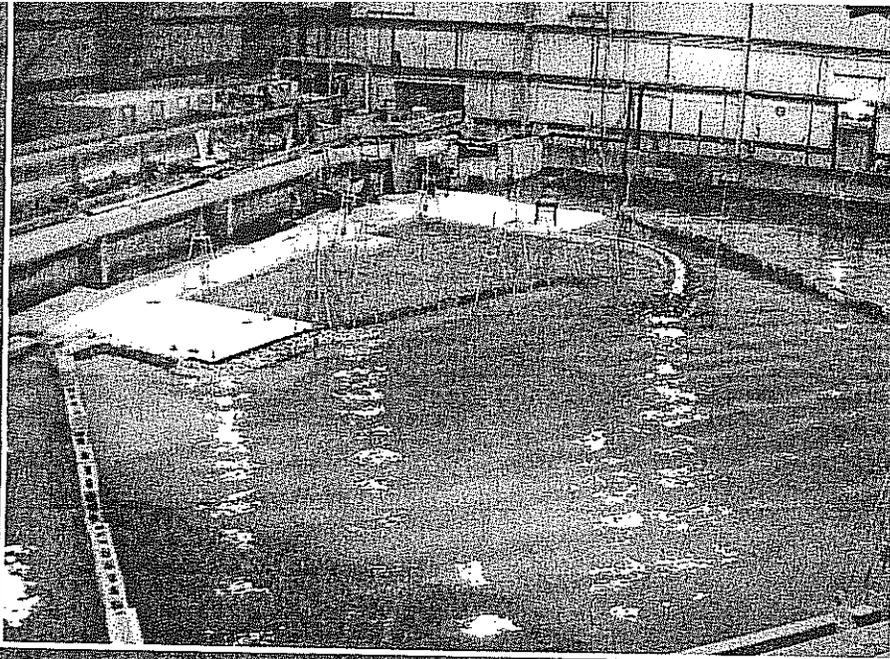
Typical basin dredge depths (below mean low water) for harbors serving power and sail boats.

Location		Dredge Depth	
		Feet	Meters
Main entrance channel		10 to 20	3.0 to 6.0
Access aisles		10 to 15	3.0 to 4.5
Berthing Area		Feet	Meters
Feet	Meters	Feet	Meters
30	9	8	2.5
40	12	10	3.0
50	15	12	3.5
Maxi		15	4.5

Ocean Pointe Marina, commercial center, shops & fully entitled and in approval include a marina, hotels, timeshare units, and adjacent commercial uses.



FOURTH WORLD WATERFRONT DESIGN 2008 11 22



The harbor at Clinch Marina was designed using a state-of-the-art hydraulic laboratory facility at Queen's University in Kingston, Ontario.

Victorian-style architecture and making extensive use of native landscaping.

Understanding Specific User Needs

Once the demand for a marina has been determined, it's important to understand what kinds of boat traffic can be expected. This will help to determine the boat basin's appropriate size, amenities and exact location.

Typically, metropolitan marinas tend to serve more powerboats, those interested in fishing excursions and touring the shorelines, and those who patronize local shops and restaurants. Rural marinas, situated in scenic bays and inlets, are more frequented by sailboats. A good example of this is the Waterford on the Bay development, located on Lake Superior near the Apostle Islands National Lakeshore. The marina complex provides vacation housing, dockage and boater support facilities for the Twin Cities sailing community who frequently spend long weekends sailing among the Apostle Islands.

Local demographics are key in determining the appropriate number and mix of boating slips. The Great Lakes area remains the leader in recreational boating, accounting for one of every five boats registered in the nation. The Pacific is the fastest growing region, with a nearly five percent increase in boater registrations in 2001. In California and Hawaii, a simple lack of suitable, environmentally acceptable

coastal sites has prevented the construction of new marinas; waiting lists for existing slips continue to grow. Here, any new waterfront projects will likely rely extensively on dry-stack and on-trailer land storage.

Boats are getting larger. Recent slip projects accommodate a range from 30 to 150 feet, with the majority in the 35- to 40-foot category. Although some states permit marina developers to sell docking rights at individual slips fee simple, other states prohibit this practice. These "dockominiums" provide a way for developers to recoup initial capital expenditures. Long-term leases

of 50 to 99 years are another option. Because state laws vary, marina developers should check local regulations regarding permitting, zoning and entitlements.

Transient dockage facilities are also becoming important components of waterfront projects. Many marinas are reserving five percent of their slips for short-stay traveling boaters. These boaters provide a steady source of revenue in dockage fees and by frequenting local shops and restaurants.

SmithGroup JJR has designed two new marinas—in Traverse City, Michigan and Sheboygan, Wisconsin—with these markets in mind. What's more, both the state and federal governments also are helping to fund these projects: The new Federal Boating Infrastructure Grant program has already provided more than \$32 million to states to provide facilities for transient, non-trailerable boats 26 feet or more in length.

Marina basin configuration should follow time-proven standards for harbor entrance and channels, dockage, breakwaters, shore protection and sufficient maneuvering space. (See charts). Floating docks provide a major advantage in areas where significant water level fluctuations exist. Whether the choice is a floating system or a pile-supported, fixed-elevation dock, all utilities (water, electricity, lighting, fire protection, etc.) should be integrated into the system.

A successful marina plan must include a variety of basic boater services: fuel, a ship's store, restrooms and showers, laundry facilities and maintenance areas.

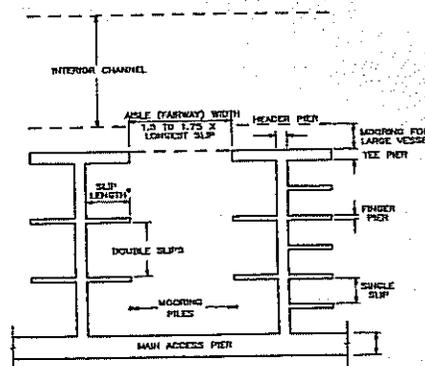
Marina planning ratios (to convert to metric: 1 acre U.S. = 0.4 ha)

Item	Density	Assumption
Wet Slips	15 to 25 boats/acre (water)	Includes entrances, aisles, turning areas (35-40 F [10.5 to 12 m])
Dry Stack	80 to 100 Boats/acre (land)	Includes buildings, maneuvering, and parking
Auto-Trailer Parking	25 to 30 Auto Trailers/acre (land)	Includes parking, maneuvering, and minimal landscaping
Auto-Only Parking	80 to 100 Cars/acre (land)	Includes parking, aisles, and landscaping
Winter Storage	55 to 65 Boats/acre (land)	Includes storage, aisles, and maneuvering (35-40 ft [10.5 to 12 m]) Average Boat Length

**Typical schedule for boat slip dimensions in feet (source: SmithGroup JJR, LLC)
(to convert to metric: 1 ft U.S. = 0.305 m)**

Slip length	Single Slip Clear Width	Double Slip Clear Width
25	13	26
30	14	29
35	16	33
40	18	36
45	19	39
50	20	41
55	22	44
60	23	46

**Typical boat slip arrangement
(courtesy of: SmithGroup JJR, LLC)**



In addition, today's increasingly sophisticated boating community is demanding more amenities. Restaurants, swimming pools, health clubs, and upscale shopping areas are becoming common. Although the marina will serve as the visual focal point, these other recreational facilities within the complex may become the activity center.

Technical Challenges

The very nature of waterfront sites makes them uniquely challenging: The destructive potential of wind, waves and currents demand protective measures. Couple that with the aforementioned detritus of former industrial areas and all their problems, and it's a wonder anything gets built on these sites at all.

On the positive side, many former waterfront industrial areas were wisely sited locations—protected areas with good access, natural harbors and deep, navigable waters. In many cases, property that has been historically used for maritime activities is less costly to develop. In general, the site that requires the least amount of extra work and bureaucratic finagling will probably be the preferred site for marina development.

Even some of the most complicated projects can become a waterfront dream. Today, the Bay Harbor Resort Community along northwest Michigan's "Gold Coast," is a thriving 1,200-acre freshwater resort community with two busy harbors, a 27-hole championship golf course, a 400-slip yacht club, a 120-slip marina, popular shops and promenades, a grand Victorian-style inn, and a neighborhood of luxury homes, many of them along the water with private dockage. Yet only a decade ago, the site was an industrial wasteland, scarred with the remnants of an old cement plant and abandoned quarry.

The Bay Harbor project certainly presented several imposing environmental challenges, from an 80-foot-deep quarry with a loose face of rock, to piles of kiln dust threatening to leech or slump into Lake Michigan. Yet with careful environmental and engineering analysis, coupled with a little creativity, those challenges became blessings. Rock was removed between the old quarry and Little Traverse Bay, creating a 90-acre deep-water harbor with 9,000 feet of shoreline and thriving fish populations that migrate freely back and forth to Lake Michigan. The worrisome kiln dust piles were capped with layers of limestone from the quarry, where they would slowly solidify from groundwater moisture. Though not appropriate for building foundations, they provided spectacular rolling topography for some of the waterfront holes of the Bay Harbor Golf Club.

"Bay Harbor not only capitalizes on the beauty of Little Traverse Bay, it enhances it," suggests Bernie Fekete, principal engineer for SmithGroup JJR. "It's a great example of adaptive reuse—providing both sorely needed environmental protection and desirable recreational amenities."

Many waterfront projects call for sophisticated science. Some firms are employing specialists, including fisheries biologists and water resource engineers, to address the complexities inherent in these projects. Hydraulic modeling can be a valuable tool to test engineering and design ideas. The physical modeling undertaken by SmithGroup JJR—done by replicating lake bottom topography, shoreline contours and proposed structures in a 100-foot by 100-foot wave tank—has proven both invaluable and cost-effective in the development of several Great Lakes projects.

"The tangible nature of physical

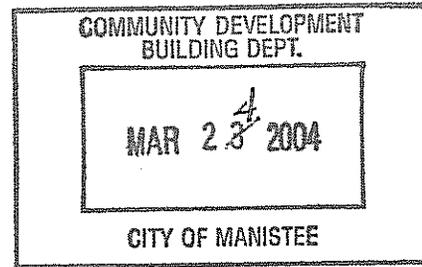
models provides a physical perspective on the performance and integrity of shore protection structures," explains Bill Brose, principal engineer for SmithGroup JJR. "We can measure and quantify wave data, analyze the use of locally available material and minimize the geometry of costly coastal protection structures."

In Traverse City, infrastructure improvements to the 30-year-old Clinch Marina raised concerns that structures designed to mitigate wave action would block views of Grand Traverse Bay. Physical modeling offered proof that low-crested breakwaters would sufficiently protect the boat basin. In Milwaukee Lakeshore State Park, this system helped design shoreline protection structures that addressed the concerns of waves striking the foundation of a proposed Great Lakes Schooner Education Building and maritime basin.

There are many unceasing challenges in waterfront redevelopment projects. But by setting aside traditional ways of thinking and engaging in some creative approaches, it's possible to turn the tide. Marinas and other waterfront improvements can be the catalysts—indeed, the shining stars—of urban redevelopment. We turned our backs on these sites a half-century ago. It's time to turn around and embrace them. There are shorelines everywhere ripe for a waterfront renaissance. ⚓

Fred Klanck, P.E., F.A.S.C.E., is president of SmithGroup JJR, LLC, a national consulting firm in Madison, Wisconsin specializing in waterfront design and is the editor/co-author of the American Society of Civil Engineers Manual 50 Planning and Design Guidelines for Small Craft Harbors. Tina Lassen is a Hood River, Oregon-based freelance writer.

March 7, 2004



Dear Planning Commissioners:

I am writing in support of the proposed Northern Lights power plant. Some people have really tried to downplay the jobs this facility will create in our community. In addition to around 60 permanent jobs, the amount of contract work that large, industrial facilities such as this create is very significant. For the last 35 years, I have worked in area plants – PCA, Morton's, Martin Marietta, TES Filer City and Hardy Salt – not as an employee, but providing services when needed as a subcontractor. The wages and benefits I have earned have been spent here in the community - paying for groceries, health care, gas and entertainment, thus creating another round of employment opportunities.

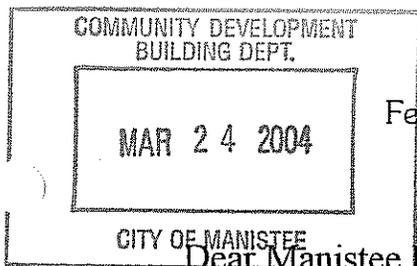
While I am not a direct employee of any of these facilities, I've made my living from their existence here in our community. I've raised my family in Manistee, only to watch my four children choose to move away because of the lack of opportunities that exist here.

Many people have expressed concerns about the environmental issues of bringing in a new power plant. I am concerned about the health of our community too, but having worked in newer facilities, I've also witnessed the evolution of the technology used to control emissions. This project will be held to a higher standard than its predecessors. I see many of the illnesses that opponents to this project blame on the current industry as being self-inflicted. Lung cancer, heart disease, obesity, diabetes and alcohol related illnesses plague our community, but most of them can be attributed to the choices people make on their own. Manistee County has a smoking rate of nearly 50%; almost double that of the rest of the state.

In order for older plants to be shut down, or taken offline and retrofitted with updated environmental equipment, there has to be power available to replace what these older facilities have been providing. With the shortage of power that exists in Michigan, this hasn't happened. We need this plant for Michigan's long-term energy needs and stability. We need this plant for Manistee – for the jobs, the revenues it will provide to the city and county and to keep the old Hardy Salt site active and viable.

Sincerely,

Kurt Edenburn
2857 Old Maple Road
Manistee, MI 49660
723-2551



Douglas R. Jackson, M.D., P.C.

Fellow of American Academy of Orthopaedic Surgeons

March 21, 2004

Dear Manistee Planning Commission,

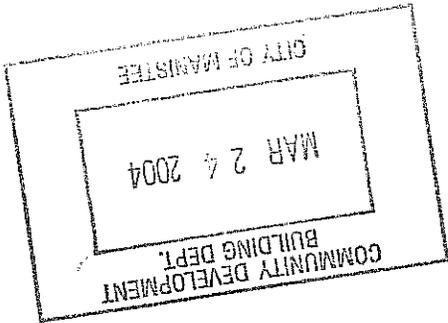
I have for many years enjoyed your wonderful waterfront community as a summertime fisherman and enjoyed the fine Manistee area restaurants.

I am concerned for your community as I read the following news items.

1. There is a proposal to build a 425 megawatt generator on Manistee Lake which will not be required to have emission controls equal to other non-utility industries.
2. The developer has made a deal with cities outside of Manistee to sell the completed project so these outside municipalities could claim ownership and thus make the facility exempt from paying ANY local taxes.
3. This project would put an additional strain on your water and sewer system and require additional expenditures, while the project makes little or no contribution to the expenses incurred by the community.
4. The project developer is already 12 years in arrears for real estate taxes on a smaller project in your community.
5. The DNR already has Mercury Advisories on fish caught in Lake Michigan (and other areas), and the leading problems with coal fueled generation plants is the mercury that is put into the water, atmosphere or area landfills.

This deal smells very bad for Manistee residents. You will get some short term construction jobs then some low wage operational jobs if the plant becomes operational. It will also become well known as the most contaminated, polluted and short sighted towns on Lake Michigan. Can the community afford to loose a large portion of the fishing population to other area communities? Does the community want to loose a large number of the new retirees moving into northwest Michigan? People have many choices on where to live and you have done a splendid job with the River Walk and such, please don't take a short sighted decision that will move to make your community like the area surrounding Gary and Hammond, Indiana.

3211 Applewood • Midland, Michigan 48640
Phone (517) 835-1556 • Fax (517) 837-1288
989 989



Sincerely,
Laurie McCall

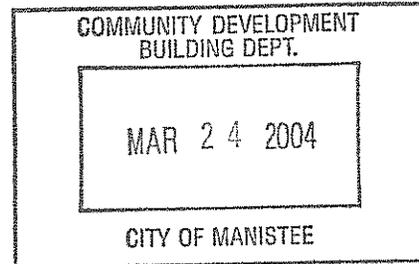
Thank you

I would like this letter
to go in the record of the
Planning Com. and the City
Council. Would you please
see that nothing there City
leaders receive a copy.

John Rose

Mar 23, 2004

730 Harbor Drive
Manistee, MI 49660
March 22, 2004



Editor
Manistee News Advocate
75 Maple Street
Manistee, MI 49660

Neither the Planning Commission nor the City Council has taken any action to determine the true "attainment status" of our local air quality. This is very disturbing to me. Both Mason and Benzie County's are "non-attainment" areas as proven by the EPA air monitoring systems. I continue to wonder how Manistee can be between those counties and not have that same air standard. The proposed Northern Lights power plant could not be sited in those counties without impacting public health.

Manistee County does not contain EPA air quality monitoring equipment and is therefore classified as an "attainment" area by default. It is absolutely essential that our community leaders require that the EPA determine our true air quality classification.

If that is not done, our community leaders, (Planning Commission and City Council) will be risking public health by allowing plant construction. Lack of this information is no excuse for allowing this project to go forward.

Lack of "attainment" status along with many other valid reasons fully justifies the denial of a Special Use Permit by the City Council and the Planning Commission.

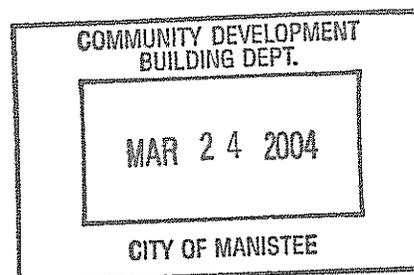
Sincerely



Elaine McWatt

Jon Rose

From: Meagan Bobier Kempf [mbk@chartermi.net]
Sent: Thursday, March 18, 2004 11:30 AM
To: Jon Rose; Mitch Deisch
Cc: Jim Ford; Jim Tondu; Joe Tondu; Beverly Baker
Subject: Questions on CFB's & Carbon Injection Systems



Mitch & Jon –

We are currently in the process of updating our website.

Questions have come up regarding two different types of technology as they relate to the design of the Northern Lights plant – the activated carbon-injection system for mercury control, and the circulating fluidized-bed boiler (CFB).

I would like to take the opportunity to provide you with answers to these questions as they will appear in the Frequently Asked Questions section of the website. Please share this information with the Planning Commission and consultants.

Will carbon injection be used to meet the new mercury emission limits?

The best answer for now is maybe. The current plant layout has allocated the necessary spacing to install activated carbon injection should it be determined that this is the best option for mercury control in the Northern Lights plant.

Mercury control technology is still evolving and more testing data is becoming available every month. While carbon injection systems appear to be an effective way of reducing mercury emissions, some of the data is indicating that carbon injection may not be the most effective choice for the type of coal this project is using. When the project moves into final design, the engineers will recommend the most effective mercury control technology based on all the latest information.

Why aren't you using CFB technology?

There are a number of good reasons:

- The largest commercial circulating fluidized-bed boilers (CFB) in the U.S. range between 200 and 350MW. A 425 MW unit would be considered experimental. An arrangement that used two smaller boilers would make the project prohibitively expensive.
- CFBs use limestone as the fluid bed material. This results in double the amount of solid waste generated in comparison to the proposed Northern Lights project – which would in turn double the amount of truck traffic and reduce the amount of landfill life.
- CFBs have higher construction costs, higher annual costs, are slower to start-up and less responsive to changing output levels on demand.
- CFBs are justified when burning poor quality fuels, especially fuels high in sulfur content. Northern Lights will use low sulfur, Powder River Basin coal which is not typically burned in a

CFB boiler.

- It is important to note that the permitted emission limits would not change if CFB technology were utilized in place of a pulverized coal boiler system in the Northern Lights project.

The City of Holland is currently looking at CFB technology if they build another plant. The main reasons for this selection have nothing to do with emissions. They have selected a CFB system because they plan on co-firing the wastewater treatment plant sludge with the coal and want to do it with little or no drying. This cannot be done with a pulverized coal unit. Additionally, they have very little space available on their site for the new plant and the CFB unit is more compact since it eliminates the need for a scrubber.

Please do not hesitate to contact me should you or any of the Planning Commissioners have any further questions or concerns.

Meagan Kempf
TONDU Corporation
231.723.5310 office
231.723.5303 fax
mbk@chartermi.net
www.tonducorp.com

3/18/2004

3-24-04

PLANNING COMMISSIONERS,

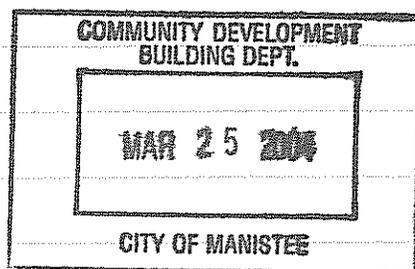
FIRST OFF, THANK YOU FOR YOUR TIME AND WORK INVOLVED IN THIS NORTHERN LIGHTS PROPOSED PROJECT.

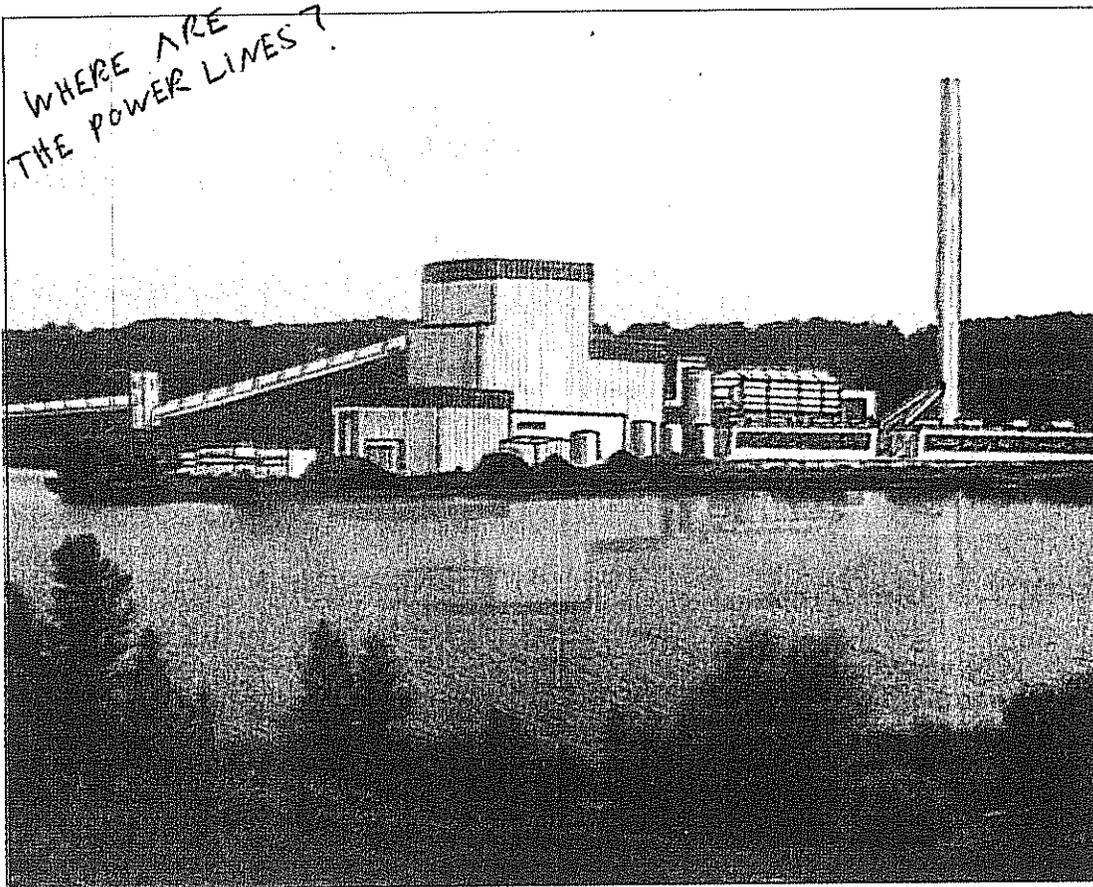
I DON'T HAVE A LOT TO SAY, BUT LIVING IN FILER TOWNSHIP WE HAVE PUT UP WITH THE POLLUTION, NOISE, AND STINK FROM THE SMALL TONDU PLANT. THIS AREA DOES NOT NEED ANY MORE POLLUTANTS ADDED TO OUR AIR WE ALL BREATHE. WE AS A PLANET CANNOT GO ON LIKE THIS. WE HAVE TO START CHANGING THE WORLD.

I ALSO BELIEVE A PICTURE IS WORTH A THOUSAND WORDS. SO SHOULD YOU O.K. THIS PROJECT, I'VE SUBMITTED A NEW LOGO FOR MANISTEE.

THANK'S FOR YOUR TIME

Michael Boyth





Tondu Corporation rendering of the Northern Lights project as viewed from East Lake.

Michigan Wild Turkey Hunters Association



3/24/04

Jon Rose
Manistee Planning Commission
P.O. Box 358
Manistee, Mi. 49660

Dear Mr. Rose:

On behalf of our organization, I am responding to the issue of the establishment of the Northern Lights Power Plant. Although our state wide organization was established to insure the continued success of Michigan's Wild Turkeys, we are a very active conservation organization who are involved in many varied issues.

We know that you are aware of the toxic chemicals, compounds and poisonous metals that would be emitted from that coal burning facility so we will not list these at this time.

For a number of years the Michigan Department of Community Health has issued a special advisory for all inland lakes in Michigan due to Mercury. They warn of the health effects from eating fish from these lakes. The largest source of Mercury pollution is from coal burning power plants.

During the recent controversy over burning shredded tires at the Cadillac co-generation power plant, a high ranking employee of the U.S. Forest Service testified at a public hearing of the devastation to the hardwood forests and the lakes of the eastern United States from acid rain. Again, the major contributor of acid rain is coal burning power plant emitting Sulfur Dioxide.

Scottville is Manistee's nearest neighbor to the south. This small town has been listed by the EPA as one of the most air polluted cities in Michigan, not because of heavy industry here, but rather pollution coming across Lake Michigan. How can it be justified to add to their air quality problems from a pollution belching Northern Lights power plant?

Electric producing co-generation facilities have been established throughout northern Michigan. They were established on the premise of creating electricity by burning supposedly waste wood. Now most are burning scrap tires and are emitting the same toxic chemicals, compounds and metals as coal burning plants do, with devastating consequences to the health of our citizens, wildlife, water, forests and land. To permit the proposed plant to be established within northern Michigan is unacceptable.

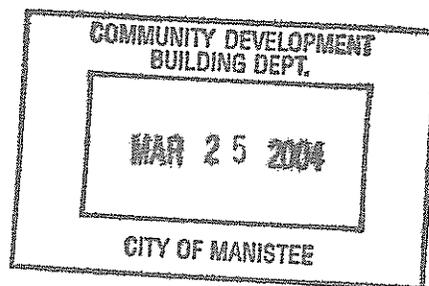
Our organization and membership stand opposed to the coal burning, pollution belching Northern Lights Power Plant and we highly recommend that it die a sudden death at the local level.

Sincerely,


Jim Maturen
4111 Wild Turkey Trail
Reed City, Mi. 49677
(231) 832-2575

President
Pere Marquette Chapter
Michigan Wild Turkey Hunters
Association

Member - Board of Directors
Michigan Wild Turkey Hunters
Association





Doc#: MPC-003-03-18-2004

**Environmental Issues of Concern with Regard to Construction and
Operation of the Northern Lights Power Plant;**

**Including a Brief Assessment of the MPC Role in the Process of
Considering the Tondu Corporation Special Use Permit Application to
the City of Manistee Planning Commission (MPC)**

Monday, March 22, 2004

REFERENCE: Powell & Associates Document # MPC-001-02-25-2004, Addressing
Outline Section 2, "Environmental Issues (*acute and chronic
impacts*)."

FROM: Robert M. Powell on behalf of the Little River Band of Ottawa Indians

Dear Chairperson Yoder and Members of the Manistee Planning Commission:

Environmental contamination dominates the issues involved with construction and operation of the Northern Lights Power Plant. In that regard and as a former Mayor myself as well as an environmental scientist (not an environmental activist but a research scientist) and after having spent 10 years in state government and 11 years working in a USEPA facility, I want to initially address my opinion of your responsibility and capabilities with regard to the approval of this project. I will then address specific environmental concerns that are far more than sufficient *in toto* to warrant rejection of the Special Use Permit application.

**Community Standards, Local Government and the Planning
Commission**

Many states have regulations that are stricter than those of EPA; cities can and do take the same progressive approach to protect the health of their citizens. The MPC and the City Council have the capability to reject projects that are not in the best interest of the community, especially if said project approval will result in degradation of human health and the environment. No matter what is said to the contrary, the NLPP project will absolutely degrade environmental health in an already highly contaminated area. This is a facility that will have emissions of all sorts. Please realize that USEPA and MDEQ regulations are not based entirely on science or the highest attainment of human and environmental health but are highly politicized and strongly impacted by well-financed companies and/or individuals and their influence over various political bodies; influence that is wielded via a number of mechanisms. The MPC and City Council are the first line of defense for quality of life, safety and protection of human health and the environment for the Citizens of Manistee. In this instance your protection will extend both regionally and globally because of the widespread impacts of a coal-fired power plant.



Doc#: MPC-003-03-18-2004

The MPC is ultimately responsible to the citizens of Manistee, not to corporations, especially not to those from outside the state. I implore you to understand that your capability in this process goes beyond having to approve this permit or to approve it with conditions. You have every right and power to reject this permit application outright and you have been provided the scientific basis needed to back up this decision from myself, numerous citizens groups, and by a multitude of your constituency. We will be by your side should your decision be to reject this application.

It is my understanding that the consultant to the MPC, Williams and Works, has been indicating that you cannot or should not impose environmental requirements that are stricter than those of MDEQ or USEPA. I entirely disagree and, in fact, would like to point out that Williams and Works is an engineering company that does precisely the types of infrastructure developments and repairs that will be required by the City of Manistee should the NLPP go forward. This results in the appearance of a conflict of interest. More importantly, contrary to the consultant's assertion that the MPC and the City Council are precluded by law from imposing stricter regulations, that is not what is at issue. The Ordinance requires the MPC to make findings that the NLPP project is designed to protect the health, safety and welfare of the community; and these findings are independent of the issue of environmental regulations.

Environmental Issues

Insufficient Site Characterization and Inadequate Environmental Understanding

The site under discussion for the NLPP has been undergoing industrial usage and processes for over 1.5 centuries and has supported processes such as hide tanning. To my knowledge, and I have checked the records at the Cadillac office of the MDEQ, there have been no true characterizations of this site with regard to its hydrogeologic properties or the contaminant loading of its sediments and underlying groundwater. There have been wells drilled and some sediment samples collected but at no time has a full site characterization or environmental impact study been done for this site. There have been several baseline environmental assessments (BEAs) performed as the property changed hands but these are by their nature superficial studies that attempt to justify the proposed activities and show that they will minimally impact the environment rather than being fully cognizant reports on the environmental status of the site. However, even within these limited assessments are found hints that this site is much more contaminated than would be desirable.

I am considered an expert on environmental characterization, groundwater sampling, and the chemistry of pollutant metals and inorganic chemicals in the subsurface and it is my opinion that no further activities should be licensed or permitted on this property until a full environmental characterization is performed by an independent consultancy or governmental investigative or research team.



Doc#: MPC-003-03-18-2004

Demolition/Construction Process Environmental Issues

The City of Manistee must be aware that issues with environmental contamination will begin the moment that destruction of the current infrastructure of the General Chemical plant site commences. Granted the old infrastructure will have to be removed eventually anyway but, when this is done, removal in an environmentally conscious manner should be the priority, not the afterthought.

The BEA done in 2000 indicates that contamination by various salts, particularly NaCl, is very prevalent at the site in the soils. Even the skins of the buildings on the premises are filled with salt. The toxicity of the salt is not very high but it will have to be carefully managed to minimize dust releases to the air and to avoid further contamination of Lake Manistee that has already been severely degraded by salt intrusions.

An issue of major concern during construction will be the potential release of contaminants, which have been bound to the shallow soils and sediments, into the groundwater underlying the General Chemical site. There could be a significant impact to the groundwater from penetrating these contaminated soils and sediments during construction of support piers for the NLPP. These penetrations could serve as contaminant conduits directly from surface/near-surface contamination zones to the groundwater. The contaminants could be either dissolved contaminants (re-dissolved due to the change in geochemical conditions) that move with the water or be transported on mobilized soil or mineral particles upon which they are precipitated or adsorbed. Again, a thorough site characterization is critical.

A related issue is the dredging of the shoreline and lake bottom sediments to reconfigure them for the coal transport barges. The lake bottom sediments are highly contaminated with chromium, copper, lead, other metals and various organic compounds.¹ Although not properly characterized it is likely that the shoreline soils and shallow sediments are contaminated as well. Dredging and exposure of these geologic materials could result in a significant change in the geochemical equilibria that have maintained the contaminants on the soil surfaces and in the soil/aquifer material pore spaces, potentially releasing them via dissolution and desorption into the lake water.

One construction issue that has not been addressed is the disposition of the many monitoring and other wells that currently exist on the property. The construction of the NLPP would require major reforming of the surface of the General Chemical site. Information needs to be clear and specific about how these wells will be sampled

¹ Rediske et al. 2001. "Preliminary Investigation of The Extent of Sediment Contamination in Manistee Lake." AWRI Publication # TM-2001-7. Great Lakes National Program Office, #985906-01. U. S. Environmental Protection Agency, National Oceanic and Atmospheric Administration

Powell, R. M. 2003. "Exploratory Analysis of Data from: Preliminary Investigation of The Extent of Sediment Contamination in Manistee Lake." Powell & Associates.



Doc#: MPC-003-03-18-2004

managed/ protected/ secured/or retired before and during construction. Related to these concerns is the ultimate disposition of sampling, monitoring and potentially remediating the contaminants under the surface of this site. Site landforming, building construction, landscaping, and creating massive coal impoundments essentially creates a barrier to further assessment or remediation of site contaminants. This should not be allowed until a thorough site characterization and contaminant assessment confirms that a remediation project is unnecessary.

Inadequacies of the Tondu Environmental Assessment (EA)

The Environmental Assessment provided to the MPC by Tondu Corp. is completely inadequate and does not fulfill either the needs of the MPC or the spirit of the request for the EA by the MPC. This will not be re-addressed in detail here because two evaluations of this EA have already been made available to you that expose its deficiencies.² Subsequent to these two evaluations the SUP applicant came forward with slightly more information. It is my opinion that these supplementals were primarily boilerplate with almost no specificity.

In fact, what specificity was to be found in the EA was merely a rehash of the information from previous BEAs that, as mentioned previously, were inadequate to answer the more difficult questions asked by the MPC and are required for a response that indicates even minimal comprehension of the environmental conditions at the site. These BEAs themselves hint at the possibility of significant contamination of the site by metals such as arsenic without ever properly exploring the nature, concentrations, or extent of the contamination. This deficit should be corrected before further industrial activities are approved at this site.

Increased Air and Water Pollution in an Already Contaminated Milieu

The NLPP will increase contaminant loading of both the air, water, and land surfaces in Manistee and the surrounding vicinity. This will result in added ozone and other pollution to the air in Manistee County, which should clearly be designated non-attainment for ozone. Although Manistee County is not currently considered a non-attainment county this is only due to technicalities (no current air monitoring stations) and reasoned analysis

² Powell, R. M. 29 January 2004. "Evaluation of the Tondu Corporation Environmental Assessment for the Northern Lights Power Plant Project as Submitted to the City of Manistee Planning Commission on 12/17/2003." Powell & Associates.

Sagady, A. J. 30 January 2004. "Tondu Environmental Assessment, Northern Lights Project." Sagady & Associates.



Doc#: MPC-003-03-18-2004

clearly shows that a non-attainment designation is well deserved.³ In addition to oxides of nitrogen and resultant ozone, sulfur oxides will be released that are the precursor compounds to the formation of acid rain. Acid rain is responsible for lowering the pH (i.e., increasing the acidity) of poorly buffered lake waters in the northeast, harming the ecosystem, as well as causing damage to infrastructure because of its corrosive characteristics. Particulate emissions will also be increased in the Manistee area, escalating the inhalation burden for the population and impacting the health of everyone but particularly asthmatics and those with other existing respiratory conditions.

Mercury, heavy metals and radionuclides will also be released to the environment from the NLPP, some via atmospheric injection and some from releases of ash during transfer and transport as well as from ash leachate after landfilling. The mercury issue has been thoroughly documented for the MPC. It will not be further addressed here except to say that even if no other issue or accumulation of issues is sufficient for the MPC to choose to deny the Tondu SUP, the health and ecological impacts of increasing the mercury loading of the environment around Manistee should alone suffice to support the denial. In addition to mercury and other heavy metals, radionuclides are present in coal and available to the environment during coal combustion and byproduct (ash) disposal. Recent calculations have shown that as much as 28 lbs of uranium per year could be emitted from the NLPP⁴, not including the disposed ash contents, and uranium is not the only radioactive element in coal ash.

Any of the chemicals that are emitted to the atmosphere from the stack of the NLPP can eventually be deposited on the earth's land and water surfaces, resulting in increased pollution of both. Direct deposition, erosion and surface runoff all result in increased contaminant concentrations in our rivers and lakes. Infiltration from rainfall and snowmelt can carry contaminants into the groundwater that will eventually impact these surface water bodies or water supply wells. Contaminants such as mercury are taken up by organisms at the lowest trophic levels (e.g., algae, plants, simple bottom dwelling benthic organisms) that are subsequently ingested by organisms at higher trophic levels (e.g., fish, then eagles or humans). At each step up the food chain the mercury becomes more concentrated, or biomagnified, and increasingly damaging to the physiological systems of the host organism.

Coal pile dust from the storage of massive quantities of pulverized coal on the land surface will occasionally be a health, aesthetic and environmental issue. Although coal piles currently exist around Lake Manistee the scale of the NLPP storage will be much

³ Sagady, A. J., Sprague, L. A., Brooks, W. and J. Mitchell. 06 February 2004. "Petition and Revised Recommendations to the Regional Administrator United States Environmental Protection Agency - Region V Concerning Designations for Ozone Air Pollution in the Shoreline Counties of the Northwest Lower Peninsula of Michigan pursuant to the Clean Air Act, 42 U.S.C. §7407." Little River Band of Ottawa Indians; Sagady & Associates.

⁴ Powell, R. M. 10 December 2003. "Brief Evaluation of Tondu Responses to the Manistee Planning Commission Questions." Powell & Associates.



Doc#: MPC-003-03-18-2004

larger. Strong winds will scatter the coal dust about Manistee even if proper and approved control conditions are in place. This will result in more coal contamination of the lake as well as issues with coal dust deposition on cars, homes, buildings, etc., not to mention inhalation of the dust.

NLPP water use creates other major potential environmental issues, both with regard to water uptake from Manistee Lake, wastewater generation, and thermal discharge into the lake. Tondu proposes to remove 4200 gallons/minute of water from Lake Manistee. This will create a significant current towards the intake in its vicinity and potentially result in the uptake or trapping against the intake screens of fish and fish fry. This could have an impact on Manistee Lake fish populations, especially since the NLPP also proposes to dump its thermal emissions into Lake Manistee. The increased heat from this dumping of hot water in such large volumes into the lake can impact the life cycles of the lake organisms, including the fish, possibly to the extent of changing the species structure in the most heavily impacted portion of the lake. Chemical reaction rates will approximately double for each 10 degrees centigrade increase in the temperature as well, including natural reactions, contaminant reactions, and biological processes.

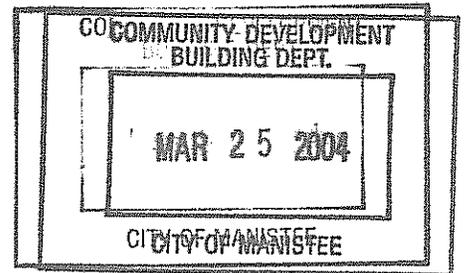
Conclusion

The issues that I have addressed to you in this document and its precursors barely scratch the surface of the issues that will be created should the NLPP be constructed and, because of the format, do not attempt to fathom the details of these issues. If you would like further information or to discuss these issues in general or with regard to individual specifics, feel free to contact me at your convenience. My information is provided below.

As a consultant on behalf of the Little River Band of Ottawa Indians and as a citizen of the State of Michigan, I request that you deny this permit application for the reasons cited above and many others that have been delineated for you both by myself (Powell & Associates Documents # MPC-001-02-25-2004 and MPC-002-02-27-2004) and by numerous other citizens and organizations.

Thank you for your consideration,

Robert M. Powell
Powell & Associates Science Services for the Little River Band of Ottawa Indians
P&A Office Phone: 248-620-1398
R. Powell Cell: 702-524-5213
Email: rpowell@powellassociates.com



**Late Submittals (after 12:00 noon)
handed out to the Planning Commission
at their March 25, 2004 Worksession**

Letter from Julie Beardslee, City Assessor to Roger Yoder, Chairman Planning Commission dated 3/25/04

Letter and Memorandum from Meagan Kempf, Tondu Dated 3/24/04 RE: New Jobs Created by the Northern Lights Project

Correspondence:

Robert T. Hensel, MD, Manistee, Michigan



70 Maple Street • P. O. Box 358 • Manistee, Michigan 49660

231-723-2558
FAX 231-723-1546

March 25, 2004

Roger Yoder, Chairman
Planning Commission
City Hall
PO Box 358
Manistee, MI 49660

Dear Roger,

This correspondence is offered to the Planning Commission in response to the application for a Special Use Permit by Manistee Saltworks Development Corporation. It is a reply to the question posed in the Manistee City Zoning Ordinance, "Is the use designed to insure that public services and facilities are capable of accommodating increased loads....."

Section 8609 Special Use Permit Standards of the Manistee City Zoning Ordinance, states:

- B. The general standards for determining if a Special Use Permit is granted or not are:
 - 4. Is the use designed to insure that **public services and facilities are capable of accommodating increased loads** caused by the land use or activity, and...

Section 8610 Special Use Permit Conditions:

- A. Special Use permits can be granted with conditions, limitations, or additional requirements imposed by the commission. Any conditions, limitations or requirements upon which approval is based shall be:
 - 7. Designed to insure that **public services and facilities affected by a proposed land use or activity will be capable of accommodating increased service** and facility loads caused by the land use or activity.

The Northern Lights Project Draft Phase I Summary under Forecasted Financial Performance states that no property taxes will be required. It appears that Manistee Salt Works Development Corporation believes that the proposed Northern Lights Facility, a coal fired electrical generating plant, is exempt from the payment of real and personal property taxes, based on the ownership by governmental units or a "joint agency," under Michigan Compiled Laws Section 460.801.

If the application is approved, initial research indicates that a partial assessment of the property should be made based on the megawatts produced and retained by the Tondu Corporation. If this initial research regarding tax status is confirmed, the Northern Lights Facility will be responsible for property taxes under Michigan Compiled Laws Section 211.181, Taxation of Lessees or Users of Tax-Exempt Real Property; business conducted for profit.

If the application is approved, a complete appraisal of the entire facility would be made in order to determine the taxable portion and the exempt portion of the plant. The cost of the appraisal would be in the \$100,000 range. A consultant experienced in energy economics would need to be retained, as a consultant to the appraiser, at a cost in the range of \$25,000. An assessment administrator, acting as Deputy City Assessor would need to be hired at an estimated cost of \$50,000 for wages and benefits.

The County of Manistee and Filer Township from 1993 to the present, has expended an estimated \$895,963.96 in defense of the assessed and taxable values of the TES plant in Filer Township, a Tondu affiliation. The City of Manistee spent an estimated \$200,022.74 and significant staff hours unsuccessfully defending the assessed and taxable values of the General Chemical plant from 2001 through 2003. The City was unable to defend the value after the plant closed. The Martin Marietta plant in Stronach Township is currently under appeal with the Michigan Tax Tribunal.

The cost of defending industrial tax appeals statewide is staggering, it is essential that local units of government consider the cost of the appeal process, if the appeal can be anticipated. An expert defense of tax appeals is crucial for the budgetary stability of state and local governments and school districts.

If the Special Use Permit is issued and litigation occurs, the estimated cost of attorneys to defend the assessed and taxable values and the potential right of the City to tax, is estimated at \$75,000 per year. The City Assessors office would need a certified Level I assessor, to fulfill clerical and paralegal duties associated with litigation. The cost is estimated to be \$40,000, for wages and benefits.

It is my belief that the issuance of the Special Use Permit and the subsequent construction of the plant will severely impact the workload of the City Assessor's office. The cost to operate the City Assessor's office would increase by an estimated \$290,000. The 2003-2004 budget for the City Assessor's office is \$175,327.

Sincerely,

CITY OF MANISTEE



Julie Beardslee
City Assessor

TONDU

March 24, 2004

Jon Rose, Community Development Director
City of Manistee
PO Box 358
Manistee, Michigan 49660

Dear Jon:

Attached please find a memo in response to your March 19, 2004 letter to Jim Tondy with an explanation for the discrepancy in the number of jobs at the proposed Northern Lights facility. I have also included some additional information regarding employment during the construction phase of the project.

Should you have any further questions or need any additional information, please do not hesitate to contact me.

Sincerely,



Meagan Kempf
Public Affairs
Tondy Corporation

TONDU CORPORATION
14701 ST. MARYS LANE
SUITE 625
HOUSTON, TX 77079
(832) 379-4222
fax (832) 379-4333

MEMORANDUM

TO: Jon Rose, Community Development Officer
FROM: Meagan Kempf
DATE: March 24, 2004
RE: New Jobs Created by the Northern Lights Project

Several questions were raised at the March 18, 2004 Planning Commission work session concerning the number of construction and permanent jobs to be created by the Northern Lights Project. This project has been in development for nearly three years, and as with any proposed project, the size, location, timeline, number of jobs and other factors have changed based on different assumptions. This information reflects the most recent estimates and the current proposal for a 425 MW coal-fueled power plant on the General Chemical site in the City of Manistee.

CONSTRUCTION JOBS

The construction of the Northern Lights Plant will take approximately 42 months and require about 3 million man-hours of work. The current estimate for the cost of construction labor is approximately \$130 million.

Union labor will be used for the construction of the Northern Lights Plant. A Project Labor Agreement was executed in the fall of 2003 with 15 Michigan construction craft unions. The greater Manistee area has many union tradesmen who frequently travel outside of the area for work. It is the intent to hire as many local tradesmen as possible for the construction of the Northern Lights Plant.

The final number of construction jobs will not be determined until a contractor is selected to build the plant and the headcount will vary depending upon the time of year.

PERMANENT OPERATION AND MAINTENANCE JOBS

The operation and maintenance of the Northern Lights Plant is estimated to require up to 60 full-time employees. These jobs include positions in administration, operations and maintenance. Some of the positions will require college degrees and/or previous powerhouse experience. However, many jobs will be entry-level positions with on-the-job training. Wages will range from \$13.80 to \$27.60 per hour in 2008 dollars, with the average being approximately \$22 per hour. All full-time positions will provide a comprehensive benefits package.

The current projected headcount for administration is 10 and includes a general manager, a business manager, two administrative assistants, a bookkeeper, two engineers, a chemist and two technicians. Up to 16 positions will be in the maintenance department including a manager, materials manager, clerk, five mechanics, three electricians, three technicians, and two helpers. An estimated 25 positions will be needed for the operations department including a manager, day laborers and operators for the plant and fuel supply. The projected annual payroll and benefits for these 51 employees is approximately \$4 million in 2008 dollars.

Additional positions for security, as well as ash and lime handling, will also be created and are not included in the above totals. It is estimated that these services will require about nine additional full-time people. These positions may be contracted to local companies or they may be direct hires to work full-time at the plant.

In summary, it is estimated that the operation and maintenance of the Northern Lights Plant will create up to 60 new, permanent jobs. These will not replace any existing jobs, so the number of local jobs will increase. The final staffing requirements will not be determined until the plant begins commercial operations and these numbers may vary depending on the actual operation of the Northern Lights Plant. The construction and operation of the Northern Lights Plant will not have an impact on the existing positions at the TES Filer City Plant.

March 24, 2004

Manistee Planning Commission and the City Manager, Mitch Deisch:

I know this power plant is not the right thing to do to Manistee at this time. I will try to make this clear to you in the next few paragraphs. When a deal is right, people instinctively know it. The various entities see the risks and benefits clearly and the various players are transparent in their dealings. I don't feel the present developer has been transparent in his dealings with Manistee and I don't feel he will be in the future. It's just not in his best dollar interest. Millions of dollars are at stake, particularly if he can slip this plant in under the wire and get it zoned before this area is considered non-attainment or the EPA and/or the MDEQ come up with decent guidelines requiring adequate control of mercury emissions and other emissions affecting air quality. These mercury emissions fall under MACT (maximum achievable control technology) for HAPs (hazardous air pollutants). Other pollutants fall under BACT (best achievable control technology), which covers particulate matter, ozone, acid rain, NOX < SO2, and lead. The proposed plant is not the cutting edge technology that we need.

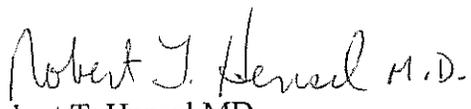
Presently our local environment (lakes, rivers, city and county) is under significant assault from all of the above pollutants because of 5 coal burning facilities on Lake Manistee as well as that coming across and up Lake Michigan from other in-state and out-of-state sources. It would clearly be a mistake to add another point source, which is larger than all the rest combined, to this mix. This plant should be turned down unless the people of the city of Manistee and Manistee county can guarantee future generations that we have carefully done the best job possible in protecting the environment now and into the future. Presently the EPA and MDEQ have left a gaping hole in the control of mercury emissions from coal-fired utilities. They need to get their act together before we can give this plant permission to come here. At present I am not sure when they will come up with a decent mercury control proposal. We as a community need a very strict standard because it is going to be right in town and if not well controlled will put everyone's health at risk, particularly children and women of child-bearing age. If not from the mercury the other pollutants (ozone, nitrous oxide, sulfur dioxide, and small particle emissions) will be a significant problem for many in the community because of increased respiratory problems like asthma and acute exacerbations of emphysema or heart disease.

The developer and the city manager have told us that Manistee because of its port facilities, industrial zoning, and its location in the state relative to the electrical grid is a prime place for a power plant. Those facts are not going to change over the next few years. It is possible that legislation could cause greater pollution control to be required in this area because of current levels of pollution and make this area not as attractive for such a plant. If that becomes apparent then it was correct to put it off, not a mistake.

Right now Manistee needs to turn this deal down and appoint a committee that would aggressively weigh the long-term benefits and risks to this community. Such a committee would report their findings to the planning commission and those on the

planning commission that wanted to be part of this committee would be on it automatically. All meetings would be open to the public with appropriate time for public input. It will take more than 60 days, probably even a year, to come up with decent decisions. The EPA and MDEQ have been toying around for well over 10 years with this set of problems and have written thousands of pages and still don't have all the answers that are needed. They certainly haven't come up with good answers for a small community that is faced with a huge power plant that wants to locate in the living room. Don't feel obliged to say "Yes" just say "We aren't ready because the community's health is at risk in our opinion."

I have written this letter to you only after reading perhaps 2000 pages of information. I can prove everything I have said and there are many significant health risks with the present proposal. If you want to discuss this call me at 889-0021 and I will meet with you at your convenience.


Robert T. Hensel MD
Manistee, Michigan



New Mercury Rule Fails to Protect Kids, Say EPA's Own Child Health Advisors

Letter to Administrator Leavitt Urges Tougher Standards for Power Plants

WASHINGTON — As the U.S. Environmental Protection Agency (EPA) prepares to formalize its proposal to establish mercury pollution limits for power plants, the EPA's respected Children's Health Protection Advisory Committee (CHPAC) sent a letter to EPA Administrator Michael Leavitt this week in an unprecedented move urging him to significantly strengthen the proposed rule to reduce the threat of mercury to children. EPA's proposed rule, expected to be published in the Federal Register on Friday, January 30, 2004, would postpone major mercury reductions from power plants until 2018 or beyond, allowing as much as 650,000 pounds of excess mercury to be released into the atmosphere. In addition, the proposed rule would remove mercury from power plants from EPA's list of hazardous (toxic) air pollutants.

The EPA's Children's Health Protection Advisory Committee (CHPAC) found that the mercury proposal "does not sufficiently protect our nation's children." The CHPAC includes doctors, nurses and other child and public health experts from academia, state agencies, industry, and the public sector, all of whom were appointed by the current administration. The letter marks the first time that the CHPAC has ever formally objected to an EPA proposed rule-making for its failure to protect children's health.

The letter adds, "While cost effectiveness is important, the priority should be to protect children's health in a timely manner."

"EPA's mercury rule ignores sound science and our children's health," said Susan West Marmagas, M.P.H., Director, Environmental & Health Programs, Physicians for Social Responsibility, and a member of the CHPAC.

"We know that mercury can damage our children's intellectual and emotional development. It is unacceptable that EPA's proposal allows power plants to pump out excess mercury for another fifteen years, contaminating our air, water, food, and our children," Marmagas noted.

Children, infants and women of child-bearing age are particularly vulnerable to mercury exposure. Mercury can harm fetal development and impair children's cognitive growth, including motor skills, learning capacity, and memory, along with other symptoms of neurological damage. Currently, about 8 percent of women of child-bearing age—literally millions of American women—have blood mercury concentrations higher than the level considered safe by the EPA. New research made public by EPA scientists this week indicates that as many as 600,000 children annually may be adversely affected.

Women and children are commonly exposed to mercury when they eat contaminated fish. Late last year the U.S. Food and Drug Administration began developing new guidelines for fish consumption indicating that children and women of child-bearing age should limit their consumption of tuna and other common

fish species as a result of unsafe mercury levels. Forty five states have so far issued 2,140 specific fish consumption advisories due to mercury contamination, a 138% increase from 1993 to 2002.

The EPA has determined that coal-fired power plants are the largest emitter of mercury in the United States, responsible for more than one-third of all industrial mercury pollution. Airborne mercury eventually deposits in water bodies and has contaminated 10.2 million acres of lakes, estuaries, and wetlands and 415,000 miles of streams, rivers, and coastline. This pollution becomes concentrated in the food chain, particularly in fish.

In addition to the proposed delay in the mercury reductions, CHPAC is also concerned about EPA's proposal to allow power plants to 'cap-and-trade' their emissions. According to CHPAC, the 'cap-and-trade' approach "may not address existing hot spots and may create new local hot spots for mercury, disproportionately impacting local communities."

Since mercury is a toxic and accumulative pollutant, the cap-and-trade model proposed by EPA is likely to impact communities with particularly high levels of toxic mercury pollution relative to other geographic areas.

Physicians for Social Responsibility (PSR) is a leading public policy organization with nearly 30,000 members representing the medical and public health professions and concerned citizens, working together for nuclear disarmament, a healthy environment, and an end to the epidemic of gun violence.

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For a copy of the CHPAC letter, please contact Nadia Khatchadourian at 202-478-6187 or nadiak@mrss.com.

MICHIGAN MERCURY ELECTRIC UTILITY WORKGROUP

Mercury has been identified as a significant environmental pollutant for decades. While mercury is naturally occurring in the environment, it is also released through a variety of man-made sources because of its wide use in products utilizing coal and some minerals. Air emissions of mercury contribute to the global cycling of mercury and mercury deposition near the sources.

For Michigan, the largest industrial source of mercury air emissions is coal-fired power plants. Governor Granholm has expressed concern for this problem and has directed the DEQ to pursue the reduction and phase-out of mercury emissions from coal-fired power plants, along with reductions of SO₂, NO_x, and carbon dioxide (CO₂). The DEQ's AQD has initiated the Michigan Mercury Electric Utility Workgroup to evaluate this issue. Workgroup members consist of knowledgeable DEQ and Public Service Commission staff; representatives from utilities potentially impacted by the workgroup recommendations; and representatives from environmental, scientific, and public policy groups. The workgroup is also evaluating the EPA's recently proposed optional approaches to significantly reduce mercury emissions from power plants, as well as other potential actions.

To address reduction strategies, the workgroup is developing a baseline listing of coal-fired power plants in Michigan that includes basic plant configurations, coal type burned, SO₂ controls, NO_x controls, PM controls, future planned controls, and a mercury emission inventory. The workgroup is discussing and reviewing information on mercury deposition patterns, and current and developing mercury control technologies. Energy choices and policy development are also being reviewed by the workgroup. Energy choices include fuel switching, new energy generation technologies, and renewable energy which would lead to a reduction in mercury emissions. Regulatory policies being considered for mercury control are an emission limits-based approach, technology-based control, cap and trade, and voluntary programs versus regulatory mandates.

The final recommendations of the workgroup will identify reduction strategies for Michigan in consideration of the current power plant fleet, current and developing mercury emission control technologies, current and future regulatory requirements, the cost to the consumer and industry, and the environmental and economic benefits to the general public. The mercury reduction strategy will also outline an approach to achieve timely and measurable goals to reduce mercury emissions from Michigan's coal-fired power plants. A final report is targeted for completion in the spring of 2004. Governor Granholm has stated that she will work to implement an approach, such as a cap and trading policy, which sets firm limits and timetables while giving utilities the ability to incorporate pollution control into long-term investments and to capitalize on market incentives to reduce emissions cost-effectively.

PUBLIC COMMENT PERIODS FOR EPA'S TWO PROPOSED RULES ON REDUCING POWER PLANT EMISSIONS

The EPA's Region 5 held a two-day public hearing on February 25 and 26, 2004 to solicit public comment on the proposed Interstate Air Quality Rules (IAQR) and the Utility Mercury Reductions Rules. These proposed federal rules, originally announced by EPA in December 2003, are aimed at achieving significant reductions in air pollutant emissions from power plants. The public comment period for the proposed IAQR ends March 30, 2004. Multiple requests regarding the proposed Utility Mercury Reductions Rule have prompted EPA to schedule another public hearing for March 31, 2004 in Denver, Colorado, and extending the proposed Utility Rules' public comment period to April 30, 2004 to provide additional opportunity for the public to submit comments and supporting information. For more on the proposed rules, along with instructions on how and where to submit comments, visit the EPA websites at: www.epa.gov/interstateairquality and www.epa.gov/mercury.

MEMORANDUM

TO: Manistee Planning Commission

FROM: Brian Sousa 

DATE: March 25, 2004

SUBJECT: Northern Lights Project
Estimated life of proposed haul-route roads

This memo is being submitted to outline our findings of the expected life of the proposed haul-route roads in the City of Manistee as it relates to the proposed development traffic.

With the proposed development being located on the south side of the City, only 2,200 feet (.42 miles) of the haul route are actually located in the City limits. This route encompasses south Main Street, from the project location, south to the City limits near Forrest Avenue. For the discussion, I would like to break the road into two sections.

Main Street from 13th to 15th Street

This section of the road is displaying high severity fatigue cracking. Due to this, there are maintenance issues that should be addressed immediately. Currently the road is receiving cold-patch treatments each spring. There is approximately 5 years of life left in this section. The proposed site plan shows an emergency entrance/exit at 13th street. This portion of the road would most likely be fully deteriorated due to all of the construction traffic proposed for the project, assuming they are to use this portion of the road.

Main Street from 15th Street south to the City Limits

Main Street was improved in 1997 from 15th street to the City limits by using a method known as overlayment. The old road, prior to re-construction, was constructed out of concrete rather than asphalt (except the section from 15th street to 16th street). Overlaying asphalt on a road basically involves removing approximately 2" of the existing pavement then placing new asphalt over an existing roadbed. All of Main Street was overlayed with approximately 3 ½ inches of asphalt from 15th street south to the city limits.

The overlayed asphalt pavement section in front of proposed Tondu plant location is exhibiting symptoms of low severity rutting, low severity fatigue cracking, and moderate severity longitudinal cracking. The pavement did not exhibit noticeable amounts of transverse or block cracking. The expected life of that pavement with maintenance such as crack sealing and patching the pot holes that would eventually occur would be approximately 10 to 15 years of additional service. The additional traffic of the proposed plant would effect the pavement directly in front of the proposed entrance potentially causing increased rutting and shoving of the existing asphalt. If this area is reconstructed when the entrance to the plant is built the additional truck traffic added to the rest of this section of road would be minimally impacted.

The overlayed concrete section from the south of 16th Street is exhibiting symptoms of low severity rutting, low to high severity fatigue cracking (high severity fatigue cracking is very localized on the west side of main street near the gutter pan on the steep hill between 16th and



park streets, and moderate fatigue cracking between park and the southern city limits), and moderate severity longitudinal cracking low severity transverse cracking. The expected life of this pavement would be approximately 10 to 15 years of additional service as long as proper maintenance is performed such as crack sealing and filling potholes that are likely to occur. Placing additional truck traffic on this section of road will have minimal effect on the life of the pavement as a whole. If the isolated areas such as the one along the gutter pan are not fixed the increase in truck traffic will have a significant impact on the service life of this section of road.

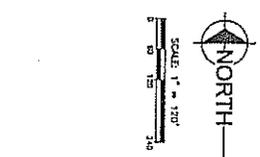
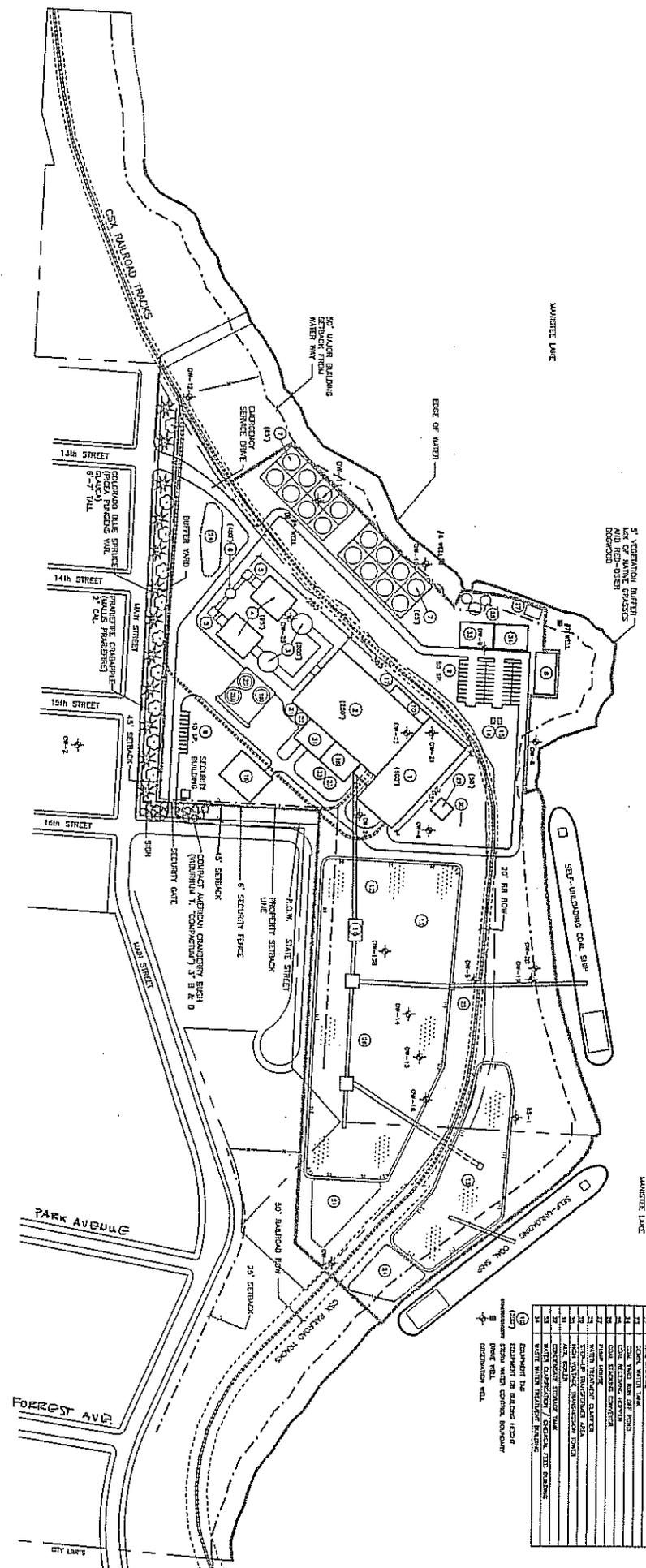
In conclusion, the expected life of the road as it is now is 10-15 years with crack sealing and maintenance. As mentioned, the roadway in front of the plant is showing some signs of distress and should be replaced if the development is allowed. There is also a small section of Main Street between 16th and Park Streets that should be addressed with replacement.

It should be noted that crack sealing and maintenance is very important to roads which have an asphalt overlay on an existing concrete pavement. If cracks are not sealed on this type of overlay then moisture can cause the asphalt to separate from the concrete.

MAN 1063-03C-001

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PLAN PREPARED BY:
 GEORGE THOMPSON, OWNER & ARCHITECT
 1000 W. WASHINGTON ST. SUITE 200
 GRAND RAPIDS, MI 49506

- NOTES**
1. THIS PLAN IS APPROVED AS A PRELIMINARY REPRESENTATION OF THE PROPOSED SITE FOR USE IN THE SPECIAL USE PERMIT APPLICATION SUBMITTED BY GEORGE THOMPSON. THE CITY ENGINEER'S REVIEW AND APPROVAL DOES NOT CONSTITUTE AN ENDORSEMENT OF THE PROJECT OR A GUARANTEE OF THE ACCURACY OF THE INFORMATION CONTAINED HEREIN. THE CITY ENGINEER'S REVIEW IS LIMITED TO THE TECHNICAL ASPECTS OF THE PLAN AND DOES NOT CONSTITUTE A GUARANTEE OF THE ACCURACY OF THE INFORMATION CONTAINED HEREIN.
 2. THE PROPOSED PARKING PLAN INDICATES 40 TOTAL SPACES TO ACCOMMODATE VISITORS FROM TWO SHIFTS OF OPERATION. THE PROPOSED PARKING PLAN IS SUBJECT TO THE CITY ENGINEER'S REVIEW AND APPROVAL.
 3. PROPOSED USE OF THE PROPERTY IS LIMITED TO THE SPECIAL USE PERMIT APPLICATION SUBMITTED BY GEORGE THOMPSON. THE CITY ENGINEER'S REVIEW IS LIMITED TO THE TECHNICAL ASPECTS OF THE PLAN AND DOES NOT CONSTITUTE A GUARANTEE OF THE ACCURACY OF THE INFORMATION CONTAINED HEREIN.
 4. THE PROPOSED PARKING PLAN INDICATES 40 TOTAL SPACES TO ACCOMMODATE VISITORS FROM TWO SHIFTS OF OPERATION. THE PROPOSED PARKING PLAN IS SUBJECT TO THE CITY ENGINEER'S REVIEW AND APPROVAL.
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231-723-2558
FAX 231-723-1546

70 Maple Street • P.O. Box 358 • Manistee, Michigan 49660

March 26, 2004

Jim Tondu
Manistee Saltworks Development Corporation
14701 St. Mary's Lane, Suite 625
Houston, TX 77079

Hand Delivered

Dear Mr. Tondu:

The City of Manistee Planning Commission hereby requests an extension to the 60 day period for a decision regarding your request for a Special Use Permit. Under Section 8607 of the Zoning Ordinance an extension can be granted if mutually agreed to between the applicant and Commission.

The Planning Commission will need a response prior to the April 1, 2004 meeting. Thank you for your consideration.

Sincerely,

CITY OF MANISTEE

Jon R. Rose
Community Development Director

JRR:djb

cc: Planning Commissioners
City Council