MANISTEE CITY PLANNING COMMISSION

70 Maple Street, Manistee, Michigan 49660
Meeting of Thursday, January 8, 2004
7:00 p.m. - Cafeteria Library, Manistee Middle School, 550 Maple Street

AGENDA

I Roll Call

II Public Hearing

None

III Approval of Minutes

Planning Commission Meeting (12/4/03)

IV New Business

1. Committee Appointments
2. Annual By-Law Review
3. Discussion and Disclosure of any potential conflicts of interest
4.

V Unfinished Business

1.
2.

VI Other Communications

1.

VII Citizen Questions, Concerns and Consideration
(Public Comment Procedures on the Reverse Side)

VIII Work/Study Session

1.

IX. Adjournment

Public Comment Procedures

The City of Manistee Planning Commission welcomes public comment in support of its decision-making process. To assure an orderly, fair and balanced process, the Planning Commission asks that participants at all public hearings observe the following rule of procedure:

1. The Chairperson will recognize each speaker. When a speaker has the floor, he/she is not to be interrupted unless time has expired. Persons speaking without being recognized shall be out of order.

2. Each speaker shall state their name and address for the record and may present written comments for the record.

3. Speakers shall address all comments and questions to the Planning Commission.

4. Unless waived by the Planning Commission for a specific meeting or a specific speaker, public comment shall be limited to five (5) minutes per speaker, one time only. If a group of people wish to be heard on one subject, a spokesperson may be designated who may request that more than five (5) minutes be permitted for the collective comments of the group as presented by that speaker.

5. The Chairperson may request that repetitive comments be limited or abbreviated in the interest of saving time and allowing others to speak.

6. The Chairperson may establish additional rules of procedure for particular hearings as he/she determines appropriate.

7. Normal civil discourse and 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 from the hearing or an adjournment.

Thank you for your interest in the work of the City of Manistee Planning Commission and for your cooperation with these rules of procedure.

MEMORANDUM

TO: Planning Commission Members

FROM: Denise Blakeslee
Administrative Assistant Community Development Department

DATE: January 2, 2004

RE: Planning Commission Meeting January 8, 2004

Our first meeting in January always begins with a few housekeeping items. Chairman Yoder will make committee appointments during the meeting. We will also have our annual review of the Planning Commission by-laws (copy enclosed).

Enclosed is a memo from Jon Rose and correspondence regarding the third item under New Business: Discussion and Disclosure of any potential conflicts of interest.

The Planning Commission had made a motion during the December Planning Commission Meeting that Manistee Saltworks Development Corporation only be placed on the January agenda if the Application can be deemed complete. The consultants have been working with the developer on the Environmental Assessment and some issues need to be resolved. This item will **not** be on the January 8, 2004 agenda.

Items relating to the Special Use Permit Application for Manistee Saltworks Development Corporation are enclosed for your review.

Due to the amount of people who have been attending the meetings we will be meeting in the Middle School Cafeteria until further notice. Signs will be placed on the doors at the Middle School.

We hope everyone had wonderful holidays! If you are unable to attend the meeting, please call me at 723-2558.

:djb

MANISTEE CITY PLANNING COMMISSION

BY-LAWS
and
RULES OF PROCEDURE

The following by-laws and rules of procedure are hereby adopted by the Planning Commission to facilitate the performance of its duties as outlined in Act 285, P.A. of 1931, as amended (being M.C.L. 125.34, Municipal Planning).

Section 1.0 Officers:

1.1 Selection: At the regular meeting in December of each year, the Planning Commission shall select from its membership a Chairman, Vice Chairman and Secretary. All officers are eligible for reelection.

1.2 Tenure: The officers shall take office at the start of the next regular meeting following their selection and shall hold office for a term of one year, or until their successors are selected and assume office.

Section 2.0 Officers' Duties:

2.1 Chairman: The Chairman shall:

A. Preside at all meetings,
B. Appoint committees,
C. Sign all Legal Documents authorized by the Planning Commission,
D. Periodically meet with Planning Department Staff,
E. Appoint an acting Secretary for a meeting at which the Secretary is absent, and
F. Perform such other duties as may be ordered or authorized by the Planning Commission.
[Annotation: Section 2.1.C was added by amendment on November 4, 1999]

2.2 Vice Chairman: The Vice-Chairman shall:

A. Act in the full capacity of the Chairman in the absence of the Chairman, and
B. In the event the office of the Chairman becomes vacant, shall succeed to the office of Chairman for the unexpired term. The Planning Commission shall select a successor to the office of Vice-Chairman from its membership for the unexpired term.

2.3 Secretary: The Secretary or his or her designee shall:

A. Execute documents in the name of the Planning Commission,
B. Be responsible for the minutes of each meeting and shall have them spread in suitable volumes.
C. Be responsible for copies of the minutes being distributed to each member of the Planning Commission prior to the next meeting of the Planning Commission,
D. Prepare an agenda for each meeting,
E. Be responsible for all communications, petitions and reports addressed to the Planning Commission,
F. Keep attendance records and shall notify the City Council whenever any member of the Planning Commission is absent from three consecutive regularly scheduled meetings so

the City Council can take further action pursuant to Section 3.2 of these rules of procedure and by law, and

G. Perform such other duties as the Planning Commission may determine.

H. Maintain an accounting of funds budgeted to the Planning Commission.

[Annotation: Section 2.3 was amended November 4, 1999, by adding "or his or her designee" to 2.3 and adding 2.3.D]

Section 3.0 Meetings:

3.1 Regular Meetings: Meetings of the Planning Commission will be held the First Thursday of every month at 7:00 p.m. in the City Council Chambers at City Hall. When the regular meeting day falls on a legal holiday, or if city wide festivities are planned for that date, the Planning Commission shall select a suitable alternate day in the same month. A meeting of the Planning Commission shall only be canceled due to severe weather or when quorum cannot be present.
[Annotation: The meeting time was changed from 7:15 p.m. by amendment on December 10, 1992]

3.2 Attendance: If any member of the Planning Commission has unapproved absences from three consecutive regularly scheduled meetings, then that member shall be considered delinquent. Delinquency shall be grounds for the City council to remove any member from the Planning Commission for nonperformance of duty or misconduct of office, or both.
[Annotation: Section 3.2 was amended on January 3, 2002]

3.3 Special Meetings: Special meetings shall be called at the request of the Chairman, or by three members of the Planning Commission. Notice of special meetings shall be given to the members of the Planning Commission at least 48 hours prior to such meeting and shall state the purpose and time and place of the meeting. The Chairman may designate special meetings for the exclusive purpose of discussion of long range portions of the master plan or for other single issue discussions.
[Annotation: Section 3.3 was amended on November 4, 1999]

3.4 Public: All regular and special meetings, hearings, records and accounts shall be open to the public.

3.5 Quorum: Five members shall constitute a quorum for the transaction of business and the taking of official action for all matters except the adoption of a master plan, or any part of a master plan. The affirmative vote of six members shall be necessary for the adoption of a master plan, or any part of a master plan. Whenever a quorum is not present at a meeting, those present may adjourn the meeting to another day or hold the meeting for the purpose of considering such matters as are on the agenda. No action taken at such a meeting shall be final or official unless and until ratified and confirmed at a subsequent meeting when a quorum is present by acting to approve the minutes of the meeting at which the quorum is not present.

3.6 Motions: Motions shall be restated by the Chairman before a vote is taken.

3.7 Voting: Voting shall be by voice or shall be by roll call and each vote recorded in the minutes. Roll call votes shall only be done upon request of a member or by ruling of the Chairman. Members must be present to cast a vote.

3.8 Commission Action: Action by the Planning Commission on any matter on which a hearing is held shall not be taken until after the hearing has concluded.

3.9 Parliamentary Procedure: Parliamentary Procedure in Commission meetings, when needed, shall be governed by Roberts' Rules of Order.

3.10 Conflict of Interest: As used here, a conflict of interest shall at a minimum include, but not necessarily be limited to, the following:

A. A commission member issuing, deliberating, voting or reviewing a case concerning himself.

B. A commission member issuing, deliberating, voting or reviewing a case concerning work on land owned by himself.

C. A commission member issuing, deliberating, voting or reviewing a case involving a corporation, company, partnership, or other entity in which he is a part owner, or any other relationship where he may stand to have a financial gain or loss.

D. A commission member issuing, deliberating, voting or reviewing a case which is an action which results in a pecuniary benefit to himself.

E. A commission member issuing, deliberating, voting or reviewing a case concerning his spouse, children, step-child, grandchildren, parents, brother, sister, grandparents, parents in-law, grandparents in-law or member of his household.

F. A commission member issuing, deliberating, voting or reviewing a case where he/she is a member of the Manistee City Planning Commission and

1. is an applicant, or
2. has a direct interest in the permit, or
3. chooses to intervene in a permit application case and is done in such a manner that the commissioner feels, in his/her judgement, that his/her job, scope of duties and/or position may be a risk, pending the outcome of the permitting process. A commission member shall, when he/she has a conflict of interest do the following immediately, upon the first review of the case and determining a conflict exists:

a) declare a conflict exists at the beginning of the meeting where the case appears on the agenda, or when the topic brought up so such declaration is recorded in the minutes, and

b) refrain from participating in the discussion, site inspection or review of the case, except where specific information has been requested by the commission, and

c) refrain from casting a vote on any motion having to do with the case.

[Annotation: Section 3.0 Meetings was amended on November 4, 1999. The amendment included deleting 3.6 Order of Business]

Section 4.0 Committees:

4.1 Executive Committee:

A. The Executive Committee shall be a standing committee of the Planning Commission. Its membership shall be the elected officers of the Commission, and they shall hold the same offices in the committee. The Executive Committee may deal with recommendations to the Planning Commission on

1. matters of the Planning Commission Budget;
2. and anything else directed to the Executive Committee by the Planning Commission.
[Annotation: Section 4.1.A was amended on November 4, 1999]

B. The Executive Committee has limited power to act only on housekeeping matters, budget, office policy, overseeing contracts when time constraints require action prior to the next regularly scheduled Planning Commission meeting. Such actions shall be reported at the next regularly scheduled Planning Commission meeting and are subject to the Planning Commission's review and veto.
[Annotation: Section 4.1B was amended on November 4, 1999]

4.2 Ad Hoc Committees: The Planning Commission or Chairman of the Planning Commission may establish and appoint ad hoc committees for special purposes or issues, as deemed necessary. No more than four members of the Planning Commission may serve on an ad hoc committee at any given time.

Committee appointments shall be made at the first regular meeting held in January of each year or at the time the committee is formed. Committees requiring appointments may include, but are not limited to: Historic Overlay/Site Plan Review Committee, Joint City Ordinance Review Committee, Master Plan Review Committee and Zoning Board of Appeals.
[Annotation: Section 4.2 was amended on January 4, 2001, amendment included deletion of Manistee County Plat Review Board and DDA Liaison.]
[Annotation: Section 4.2 was amended on January 2, 2003 amendment to add Master Plan Review Committee to the list of Committees]

4.3 Citizen Committees: The Planning Commission, Chairman of the Planning Commission, and/or the Planning Director may establish and appoint citizen committees with the consent of the Planning Commission. Membership can be any number, so long as no more than four members of the Planning Commission serve on a citizen committee at any given time. The purpose of the citizen committee is to have more citizen and municipal government involvement, to be able to use individuals who are knowledgeable or expert in the particular issue before the Planning Commission, to better represent various interest groups.

Section 5.0 Rules of Procedure for All Committees:

5.1 Subservient to the Planning Commission: All committees are subservient to the Planning Commission and report their recommendations to the Planning Commission for review and action. A simple majority vote by the Planning Commission can overrule any action of any committee.

5.2 Same Principles: The same principles of these Rules of Procedure for the Planning Commission also apply to all committees of the Planning Commission:

A. Officers of committees are appointed by the Chairman at the time the committee is created or are elected by the committee from its membership at their first meeting. Officers, at a minimum, shall include a chairman and a secretary-vice chairman.

B. A committee's quorum shall be at least half the total appointed membership of the committee. Only citizen committees can elect to meet without a quorum as provided in section 3.4 of these Rules of Procedure.

C. Only those appointed members of a committee who are present at the time of a vote shall be eligible to cast a vote.

D. If any member of a committee is absent from three consecutively scheduled meetings of that committee, than that member shall be considered delinquent. Delinquency shall be grounds for the Planning Commission to remove the member from the committee. The elected committee secretary or acting secretary shall (and the Planning Director may) keep attendance records and notify the Planning Commission of any committee member who has been absent from three consecutively scheduled meetings. The Planning Commission may consider removal of the individual from the committee.
[Annotation: Section 5.2.D was amended on November 4, 1999]

E. The secretary of the committee shall keep minutes of the committee meetings in the same format as the minutes of the Planning Commission. Minutes shall be filed in the Planning Department.

F. Committees have reasonable use of Planning Department staff time and assistance and direction for performing the work of the committee.

G. All committee meetings, records, etc. are open to the public

H. Citizen committees may form subcommittees from their own membership or with additional citizens when deemed necessary. Subcommittees are subservient to the parent committee. Subcommittees are informal, not requiring quorums, attendance, minutes, public participation, Less than one half the committees' members shall be appointed to a single subcommittee.

Section 6.0 Per Diem, Expenses and Mileage:

6.1 Mileage and Per Diem shall be paid to members of the Planning Commission at rates established by the City Council from time to time for attendance at Commission meetings and Executive Committee meetings and other authorized meetings or trips to represent the Commission, if those members bill the Commission for the same.

6.2 The payment of registration fees and/or the reimbursement of expenses to represent the City at planning related meetings, seminars and workshops must be approved by the Planning Commission, provided budgeted funds are available and if those members bill the Commission for the same.
[Annotation: Section 6.2 was amended on January 3, 2002]

Section 7.0 Hearings:

7.1 Master Plan Hearings: Before the adoption of any part of the Master Plan as defined in Section 8 of P.A. 285 of 1931, as amended (being M.C.L. 128.38, Municipal Planning) or any amendment to the Master Plan, or recommending approval of an amendment to the governing

body, the Planning Commission shall hold a public hearing on the matter. Notice of the time and place of the hearing shall be given, not less than 15 days prior to such hearing, by one publication in each newspaper of general circulation.

7.2 Special Hearings: Notice of special hearings for the purposes of presenting preliminary master plans, obtaining public opinion on a problem, or discussion of a particular problem with interested parties will be given in the most practical manner and to persons, or group representatives most interested.

7.3 Notice of Decision: A written notice containing the decision of the Planning Commission will be sent to petitioners and originators of a request for the Planning Commission to study a special problem.

7.4 Speaking at Meetings. Unless waived by the Commission for a specific meeting, any public comment shall be limited to five (5) minutes per speaker, one time only. If a group of people wish to be heard on one subject, a spokesperson may be appointed who may request that the Chairman approve more than the normal five (5) minutes. If necessary, a maximum of five (5) minutes will be allowed for the group to caucus to choose their spokesperson and develop their comments.
[Annotation: Section 7.4 was added on January 3, 2002]

Section 8.0 Matters to be considered by the Planning Commission:

8.1 The following matters shall be presented for consideration at a meeting of the Planning Commission:

A. All preliminary plans and reports for the physical development of the city, including the general location, character and extent of streets and roads, viaducts, bridges, parks and open spaces; the general location and extent of public utilities and terminals.
B. The removal, relocation, widening, narrowing, vacating, abandonment, change of use or extension of any public right-of-way, grounds, agricultural land, open spaces, buildings or properties.
C. The general character, extent and layout of the replanning and redevelopment of blighted districts and slum areas.
D. Land subdivision plats.
E. All planning reports and plans before publication.
F. Capital improvement programs.
G. Planning Department and Commission's budget requirements for the fiscal year and requests for appropriations.
H. Selection of consultants and determination of basis for compensation.
[Annotation: Section 8.1.H was amended on November 4, 1999]
I. Plans, zoning ordinances, etc. adopted by municipalities.
J. Such other matters as the Planning Director shall find advisable or essential to receive consideration by the Planning Commission.

Section 9.0 Matters to be acted upon by staff on behalf of the Commission:

9.1 The Planning Department Director shall take action or make recommendation in the name of the Planning Commission, in accordance with such plans, policies and procedures as are approved or established by the Planning Commission from time to time. Where there is a serious conflict of interest, public controversy, or uncertainty or doubt as to the plans, policies or procedures approved or established by the Planning Commission, presentation of the matter shall be made at a Planning Commission meeting.

Section 10.0 Site Plan Review and Parcel Split and Combination Review Policy:
[Annotation: "Lot" was changed to "Parcel" by amendment on January 4, 2001]

10.1 Submitted site plans shall be reviewed in the following manner:

Basic Site Plans: shall only be subject to review by the zoning administrator.
[Annotation: "City Code Administrator" was changed to "Zoning Administrator" by amendment on November 4, 1999]

Medium Site Plans: subject to review by the zoning administrator, with the option to refer the plan to the planning commission or site plan review committee.
[Annotation: Previous language for Medium Site Plans was deleted and new language was adopted by amendment on January 3, 2002]
[Annotation: language for Medium Site Plan was changed by amendment on January 2, 2003 to be gender neutral]

Detailed Site Plans: shall only be subject to review by the planning commission and/or Board of Appeals.

10.2 The Zoning Administrator shall report monthly on all site plans administratively reviewed.
[Annotation: Section 10.2 was added by amendment on November 4, 1999]

10.3 Plans for Parcel Splits and Combinations shall be reviewed, as required in Section 151.07(E) of the Manistee City Subdivision Ordinance, in the following manner:

Plans for the proposed parcel split or combination shall be forwarded by the Zoning Administrator to the Site Plan Review Committee or the Planning Commission, for review. The plan shall be reviewed to see that each resulting parcel meets each and every requirement of the City of Manistee Zoning Ordinance for the land use district in which the parcels are located.

If reviewed by the Site Plan Review Committee the Committee is authorized to either:

A. Submit recommendations on the plan to the Manistee City Council on behalf of the Planning Commission, or
B. Refer the plan to the full Planning Commission for review and recommendation.

As provided in Section 1242.f.2 of the Manistee City Code of Ordinances, recommendations of the Site Plan Review Committee and/or of the Planning Commission can be made with or without a public hearing.

[Annotation: Section 10.3 added by amendment on December 9, 1993]
[Annotation: "City Code Administrator" was changed to "Zoning Administrator" by amendment on November 4, 1999]
[Annotation: Section 10.3 was changed by amendment on January 4, 2001, included in change was deleting "Lot" and replacing with "Parcel", adding Planning Commission, and updating Section number of Manistee City Code of Ordinance.]

Section 11.0 Staff assigned to Planning Commission:

[Annotation: Section 11.0 was changed by amendment on November 4, 1999]

11.1 Authorization: The Planning Commission staff may consist of a Planning Director and such other personnel as may be authorized after the budget for the same is approved by the City Council.
[Annotation: Section 11.1 was changed by amendment on November 4, 1999]

11.2 General Responsibility: The Planning Commission Staff is charged with the duty of preparation and administration of such plans as are authorized by the Planning Commission.

11.3 Planning Director's Duties: The Planning Director shall be responsible for the professional and administrative work in directing and coordinating the program of the City. His work shall be carried on with the widest degree of professional responsibility under the direction of the City Manager. The Planning Director shall:
[Annotation: Section 11.3 was changed by amendment on November 4, 1999]

A. Supervise and review the work of professional, technical and nontechnical employees.
[Annotation: Section 11.3.A was changed by amendment on November 4, 1999]
B. Prepare a proposed annual budget for the Planning Commission and Department to submit to the Planning Commission.
C. Be responsible for carrying out the directives of the Planning Commission.
D. Work with the chairman of the Planning Commission for formulation of staff policy, subject to approval by the Planning Commission.
E. Recommend to the Planning Commission the process to implement plans and policies such as:
    1. Zoning and subdivision control.
    2. Programs for capital expenditures.
    3. Other actions by the commission or other government agencies.
F. Officially present the Planning Commission's recommendations to the City Council.
G. Officially represent the Planning Commission, and Planning Department, at planning conferences, interdepartmental meetings, and to the public and press.
[Annotation: Section 11.3.G was changed by amendment on November 4, 1999]

H. Encourage development in harmony with plans, policies and ordinances, supply information, and promote understanding of planning.

I. Perform other such duties as are contained in a job description adopted by the City
[Annotation: Section 11.3.I was changed by amendment on November 4, 1999]

Section 12.0 Adoption and Repeal:

12.1 Upon adoption of these by-laws and rules of procedure, they shall become effective and all previous rules of procedure or bylaws shall be repealed.

Section 13.0 Amendments:

13.1 These rules may be amended at any regular meeting of the Planning Commission by a two-thirds (2/3) vote of the total membership of the commission.

Adopted by Manistee City Planning Commission - 1/9/92
Amended by Manistee City Planning Commission - 12/10/92
Amended by Manistee City Planning Commission - 12/9/93
Amended by Manistee City Planning Commission - 11/4/99
Amended by Manistee City Planning Commission - 1/4/01
Amended by Manistee City Planning Commission - 1/3/02
Amended by Manistee City Planning Commission - 1/2/03

MEMO

TO: Planning Commission Members

FROM: Jon R. Rose
Community Development Director

DATE: Jan 2, 2004
RE: Conflict of Interest

Enclosed is a letter from Christopher Bzdok of the Law firm Olson, Bzdok, & Howard. Mr. Bzdok raises the issue of conflict of interest as it relates to Planning Commission Members and their deliberations on the Special Use Permit from Manistee Saltworks Development Corporation.

Since Mr. Bzdok raised concerns about possible conflicts of interest for the City Attorney, we have contacted a different attorney, John Gretzinger, for advice in this matter. Mr. Gretzinger's firm has a long-term relationship with the City as our Labor Attorneys. Mr. Gretzinger has advised that the Planning Commission Members should publicly disclose any potential conflict of interest which might exist.

Mr. Gretzinger stressed that the actual decision of whether or not there was a legal conflict of interest would be up to the attorneys. However, he would like each Planning Commissioner to declare any relationships with the developers, both financial or personal.

Please be prepared to discuss any relationships, no matter how minor they may seem.

JRR:djb

City of Manistee

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

231-723-2558
FAX 231-723-1546

December 29, 2003

Mr. Chris Bzdok
Olson, Bzdok & Howard
420 East Front Street
Traverse City, Michigan 49686

Dear Mr. Bzdok:

This letter is in response to your letter received by the Manistee Community Development Office on December 26, 2003 regarding the accusation of potential or perceived conflict of interest of several Planning Commission members when reviewing the Northern Lights Project application. Independent legal counsel has been contacted by the City to assist us on this issue.

Thank you for the letter and if you have any questions, please contact me at 231-723-2558.

Sincerely,

CITY OF MANISTEE

Mitchell D. Deisch, City Manager
mdeisch@ci.manistee.mi.us

MDD:cl

cc. Mayor Richard Mack
Members of the City Council
Community Development Officer Jon Rose
Legal Counsel John Gretzinger

LAW OFFICES OF
OLSON, BZDOK & HOWARD
A Professional Corporation

James M. Olson *
Christopher M. Bzdok
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December 24, 2003

* Admitted in Colorado
‡ Admitted in Hawaii
† Admitted in Louisiana
○ Admitted in Indiana

COMMUNITY DEVELOPMENT
BUILDING DEPT.
DEC 26 2003
CITY OF MANISTEE

Manistee City Planning Commission
City Hall
Manistee, MI 49660

Re: Special Use Permit - Manistee Saltworks Development Corporation
Northern Lights Project

Dear Members of the Planning Commission:

I am writing to you on behalf of my clients, the Citizens for Responsible Development. The subject of my letter is the Special Use Permit application submitted by Manistee Saltworks Development Corporation for the Northern Lights project. The issue I want to address is conflicts of interest. I am reluctant to get into this issue, because people often interpret it as an accusation. However, it must be dealt with if the public is going to have any trust in what you are doing. I implore you not to take my comments as accusations, but rather as a recognition that these issues are important and need to be dealt with in a candid and open manner.

Introduction

In zoning law, to say that someone has a conflict of interest does not mean they are corrupt or "on the take." It means they have a relationship to the project or developer which is too close for comfort. This kind of relationship creates an appearance which undermines the public's confidence in the proceedings. And that is all it takes for a zoning approval decision to be rendered legally invalid.

Putting the law aside for a moment, I am sure you know from experience that you are generally not going to be able to satisfy everyone with your decisions. I suspect this is especially true on a big, controversial project like Northern Lights. I expect you have found in the past that the best you can do is render an impartial decision based on the facts and the ordinance, and let the chips fall where they may. I can tell you from my own experiences that the appearance of a conflict of interest has a potentially debilitating impact on your ability to render a decision which the public will perceive as fair and responsible.

The Law on Zoning Conflicts

Michigan law, and all the leading zoning authorities, state that members of local zoning bodies must avoid conflicts of interest. The basis for the requirement is the due process clause. Your review of a special use permit application is classified as an administrative proceeding.[1] A conflict of interest deprives people of their due process right to a fair and impartial hearing in the

[1]Rathkopf's The Law of Zoning and Planning (4th ed), § 41.05(3), p 41-26. *See also, Osius v St Clair Shores,* 314 Mich 693; 75 NW2d 25 (1956).

administrative proceeding. The Planning Commission has enormous power to affect people and their property. This includes both the people who apply for zoning permits and the people who have to live near what is built with those permits. Because of that power, the courts say you have an obligation to avoid any appearance of bias in how you reach your decisions. A respected zoning treatise puts it this way:

> Conflict of interest or bias on the part of a legislative or administrative decision maker may be alleged in litigation seeking to overturn a zoning enactment or decision. With respect to adjudicative or quasi-judicial zoning action (the grant of a variance or special use permit, approval of a site plan, subdivision plot, or special exception, and in some states, the rezoning of a particular parcel of land), procedural due process generally prohibits bias or conflict of interest on the part of zoning officials involved in the decision process. Courts hold that when a public official functions in an adjudicative capacity special due process standards apply. Concern for the impartial exercise of quasi-judicial authority, in appearance as well as fact, requires that decisionmakers disqualify themselves where bias or conflicts of interest can be shown.[2]

The Michigan courts agree. They have said, for example:

> It is basic to due process that in all judicial and quasi-judicial proceedings the deciding power must not seek to serve other than that of the voters, taxpayers, members of the general public, and due process.[3]

Appearances can be as damaging as actual conflicts. For this reason, the courts do not require people who challenge zoning decisions to show an actual conflict; a decision may be overturned if there is the appearance of a conflict of interest:

> A predilection to favor one side over the other is not required in order to vitiate a judicial proceeding as being violative of due process. Merely, 'a possible temptation to the average man as judge...not to hold the balance nice, clear, and true' is sufficient. [4]

The Northern Lights Project

There is no doubt that in a small city or town, people on zoning boards are going to know some of the people who appear in front of them. The question is, how do we come up with

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[2]Rathkopf's The Law of Zoning and Planning (4th ed), § 32.04(1), pp 32-42 & 32-43.

[3]*Barkey v Nick,* 11 Mich App 381; 161 NW2d 445 (1968).

[4]Rathkopf's The Law of Zoning and Planning (4th ed), p 32-43. See also, *Crampton v Mich Dep't of State,* 395 Mich 347; 235 NW2d 352 (1975): "The United States Supreme Court has disqualified judges and decisionmakers without a showing of actual bias in situations where 'experience teaches that the probability of actual bias on the part of the judge or decisionmaker is too high to be constitutionally tolerable.'"

guidelines for deciding which situations are acceptable and which are not? The courts have given us guidelines:

> Generally, conflict of interest or bias affecting the appearance of impartiality in zoning proceedings may be shown by: (1) a personal or financial interest that may be directly or indirectly affected by the zoning decision; (2) partiality or prejudice stemming from associational ties, familial relationships, friendships, employment or previous business dealings or conduct during the proceeding; or (3) prejudgment of the issues, which is usually revealed by pre-hearing statements.

I understand that there are at least three Planning Commissioners who have some kind of relationship to the project or the applicant in this case that requires attention. I understand that the wife of one of your members works for Tondu as an administrative assistant. I understand another Commissioner may have made statements to people in town that he stands to make a lot of money in construction contracts if the project is approved. And I understand that a third member, who was appointed very recently, is close to Tondu's local public relations person, and has told people she is in favor of the project.

I am getting my information about these situations second or third-hand. That does not matter, however, because you do not need to take my word for it. What you need to do is go through a disclosure process, and then have a vote. During the disclosure process, each member of the Planning Commission needs to fully disclose any relationships to the project or the applicant, or any potential for monetary gain if the project is approved. This disclosure needs to occur on the record of the open Planning Commission meeting. Then, using the guidelines quoted above, and guidance from the City attorney, the full Commission must have separate, roll-call votes on whether to recuse each member. If you vote to recuse a member, he or she does not vote on any motions for the project, and does not participate in the deliberations, either.

This is not a radical or unique process. The City attorneys are familiar with the process, and I have personally seen them walk another Planning Commission through it on at least one other occasion. I trust now that the issue has been raised, they will do the same with you at the next meeting.

Specific Cases

In order to provide input for that process, I would like to share some of our experience with you on these issues. I can tell you that situations very similar to those of the three Commissioners I described above have been found to create conflicts in other cases. All three situations mentioned in the guidelines are present here: (1) a potential for monetary gain; (2) a relationship with the project or applicant; and (3) statements before the decision showing pre-judgment. While the cases below are from other states, any research indicates that the rules are generally the same everywhere you go.

Contracts cases:

In *Tuxedo Conservation and Taxpayers Ass'n v Town Bd,*[5] a conflict of interest was found when a board member worked for an advertising agency that was likely to receive an advertising contract with the project developer. In *Narrowsview Preservation Ass'n v City of Tacoma,*[6] a planning commissioner who worked for the bank that held the mortgage on the developer's property was found to have a conflict. In *Bracey v City of Long Branch,*[7] a planning commissioner who was an architect who might have gotten some of the architecture work from a development was found to have a conflict.

Employment cases:

In *Aldom v Borough of Roseland,*[8] a conflict was found because a city councilman worked for a company that stood to benefit from a zoning amendment. In *Fleming v City of Tacoma,*[9] a city councilman who was hired as an attorney by the developer two days after the approval decision was found to have a conflict. In *Hayden v City of Port Townsend,*[10] a planning commissioner had a conflict because he worked for a bank that planned to purchase property if it was re-zoned. In *Swift v Island Cty,*[11] a planning commissioner was disqualified because he worked for the company that held the mortgage for the development.

Relationship cases:

In *Low v Town of Madison,*[12] a husband was found to have a conflict that should have kept him from participating in any way on a project proposed by his wife's business. In *Barrett v Union Twp,*[13] a city councilman was disqualified from voting on a re-zoning request for a nursing home where his mother lived. In *SAVE v City of Bothell,*[14] a planning commissioner's ties to the local chamber of commerce, which supported rezoning, were found to be "entangling influences impairing the ability to be impartial," and struck down as a conflict.

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[5] 418 NYS2d 638; 69 A2d 320 (1979).

[6] 84 Wash 2d 416; 526 P2d 897 (1974).

[7] 73 NJ Super 91; 179 A2d 63 (1962).

[8] 42 NJ Super 495; 127 A2d 190 (1956).

[9] 81 Wash 2d 292; 502 P2d 327 (1972).

[10] 28 Wash App 192; 622 P2d 1291 (1981).

[11] 87 Wash 2d 348; 552 P2d 175 (1976).

[12] 135 Conn 1; 60 A2d 774 (1948).

[13] 230 NJ Super 346; 244 A2d 335 (1968).

[14] 89 Wash 2d 416; 576 P2d 401 (1978).

There are many more cases like these, but you get the idea. The same theme runs through all of them. If the planning commissioner is in a position where he or she could even be tempted to not act impartially, that person needs to be recused.

A Case Close to Home

The best example I can give you is one I worked on myself for another citizens group. In a neighboring judicial circuit, a court struck down a special use permit because the planning commission chairman had real estate dealings with the developer. I have enclosed that case, which is called *Elmwood Citizens for Sensible Growth v Elmwood Twp.* The court said:

> [A]n appearance of impropriety is every bit as damaging as a conflict of interest. Both destroy the faith and trust that is integral to the operation of government in a representative democracy. As our government becomes increasingly more remote from its people, it seems important to strengthen the ethical requirements for those who participate in it. The people's confidence in government cannot long be sustained if we turn a blind eye to behavior that creates an impermissible appearance of impropriety.

Sadly, Elmwood Township did not learn from their experience, and so we had to sue them two more times. We now have a contempt finding and a judgment for almost $20,000 in attorney fees against the Township that is gaining interest each day. The way they could have avoided that problem was to carefully follow the disclosure, vote, and recusal process I mentioned above.

The City Attorneys' Office

There is one more issue that I hesitate to raise, but feel I have to. That issue is the relationship between the City attorneys' office and Tondu. I have great respect, both personally and professionally, for the Gockerman Wilson law firm, and as I said at the beginning of this letter, my statements are not meant as accusations. It is an appearance issue.

The City attorneys also represent Tondu. They are the registered agent for the Manistee Saltworks Development Corporation. But they also have a duty, in advising the Planning Commission, to avoid any appearance of a temptation not to be impartial. It does not matter that they feel they can be fair. They must avoid any appearance. This kind of thing has been found to be a conflict many times before.[15] It is not an accusation or an attack against their integrity to say that these types of entanglements do not inspire public confidence in the process.

Conclusion

For these reasons, before you move any further on this project I urge you to have an open, public, disclosure process followed by recusal votes. I urge you to do this for each of the

---

[15] *Fleming v City of Tacoma,* 81 Wash 2d 292; 502 P2d 327 (1972); *Bossert Corp v City of Norwalk,* 157 Conn 279; 253 A2d 39 (1968); *Montgomery County Bd of Appeals v Walker,* 238 Md 574; 180 A2d 865 (1962); *Place v Bd of Adjustment,* 42 NJ 324; 200 A2d 601 (1964).

Planning Commissioners I have mentioned, for anyone else who may have issues that have not been mentioned, and for the City attorneys. In the long run, this protects you – both legally and in the public's mind.

I recognize the contents of this letter are potentially inflammatory, but I believe you understand where I am coming from. I trust you will take my comments in the spirit in which they are intended, and I thank you in advance for your serious and objective consideration of them.

Sincerely,

Christopher M. Bzdok

CMB:sks
xc: Bruce Gockerman (via fax)
Clients

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MEMORANDUM

COMMUNITY DEVELOPMENT
BUILDING DEPT.
DEC 26 2003
CITY OF MANISTEE

TO: Clerk, Manistee City Planning Commission

FROM: Christopher M. Bzdok

DATE: December 24, 2003

RE: Letter to Commissioners

Please provide each Commissioner with a copy of the enclosed letter upon receipt of same. Thank you for your attention and consideration.

CMB:sks

Record Eagle 1/8/04

OUR VIEW

Huge plant may not be best for Manistee

There's a big decision looming in jewel-in-the-rough Manistee.

Officials in the Lake Michigan port town must soon decide whether to welcome a 425-megawatt, coal-burning power plant a developer wants to build on Manistee Lake.

They must figure out if the 60 jobs dangled by Manistee Saltworks/Tondu Corporation, and what Tondu says would be $100 million in construction wages, is worth taking a potentially big, backward step in the town's evolution as a natural resources-rich tourist stop and bedroom community.

The decision could go a long way to defining Manistee's future. Will it return to the polluter-haven bad old days, or can it make a go of it as a more tourist-friendly locale?

The issue

■ Manistee officials are pondering a developer's proposal to build a huge coal-burning power plant on Manistee Lake.

Our view

■ Officials should review the plan with caution and not ignore environmental concerns in favor of a perceived economic quick fix.

Manistee officials over the past decade poured money and resources into remaking the town's image. Its roots may be in lumber, paper, salt and chemicals — and associated, jaw-dropping amounts of pollutants spewed into the water, land and air — but those roots withered by the late 1970s.

A rebound was seeded a decade ago, when local officials realized miles of beautiful beaches, forests, two gorgeous trout streams, a harbor and a dynamic salmon fishery could be parlayed into a tourist destination. Manistee's small-town charm also attracted plenty of retirees, who desired a slower pace and enjoyed seeing deer and turkeys stroll through their back yards.

A huge coal-burning plant with a 400-foot smokestack will change Manistee, make no mistake. And it surely won't earn mention in the local visitors bureau brochure.

Tondu can dress its proposal with jobs-and-prosperity talk, but it can't gloss over the fact the plant each year would belch thousands of tons of sulfur dioxide, nitrogen oxide and hundreds of pounds of mercury into the air.

And now comes word the power plant may be wrapped into a municipal consortium that could usher in reduced local electric rates, but would strip Manistee of the property tax boost some argue could justify plant construction.

Tondu says it would negotiate a "community services fee," ostensibly to offset the property tax loss. There's no word on what that amount might be.

Tondu isn't pitching the power plant as a favor to Manistee. Developers drool over deep water shipping access and a brownfield building site that would cost them little.

Manistee officials, therefore, should be thorough, careful and exacting when studying Tondu's special land use permit application.

After all, this is some special land, and its use should be of utmost concern to the town's future generations.

A satisfied traveler

This is regarding the Jan. 6 article on travel difficulties. I left Traverse City on Mon. Jan. 5, via United Express. My flight did leave late, but I was a to make my connectio Chicago. United Expr agents at Traverse Cit were very pleasant in dealing with the havo created by the weathe

Jody Car
Fairfax

3 young gentlemen

Cheers to the three young gentlemen who money together every

Raise v

BY JOE RODRIGUEZ

The caller said he w "just an ordinary, mo

Items forwarded to the City of Manistee Planning Commission in their packets mailed January 2, 2004 relating to the Manistee Saltworks Development Corporation

Memo from Jon Rose and Letter from Mitch Deisch in response to Correspondence from Christopher Bzdok, Olson, Bzdok & Howard on behalf of Citizens for Responsible Development

Letter dated 12/17/03 from R. J. Tondu - Northern Lights Project Environmental Assessment

Letter dated 12/30/03 from Brian Sousa to Tondu - RE: Environmental Assessment

Letters:

Mayor Mack to Lee Sprague, Ogema, Little River Band of Ottawa Indians
Dick Landback, 12777 Lakeview Drive, Bear Lake
Daniel Behring, 3695 Lakeshore Drive, Manistee
Brown Township, Board of Trustees
Manistee Conservation District, 8840 Chippewa Hwy, Bear Lake
Arlene Montgomery, 4450 E. Gauthier Road, Cedar, Michigan
Traverse Group of the Sierra Club, 3840 Blueberry Lane, Honor, Michigan
Trout Unlimited, Pine River Area Chapter, 23297 Mackinaw Tr., Tustin, Michigan
Douglas Busch, 1380 Ivanhoe Road, Ludington
Kirk Stevenson, West Michigan Plumbers, Fitters & Service Trades Local Union No. 174
Mike Ripley, Chippewa Ottawa Resource Authority
Richard Anderson, Iron Worker Locals 340
Patrick Guzikowski
Aaron Vankampen, Union Ironworker Local 340
Brett Hamilton, Ironworkers Local 340
Timothy Colyer
Judy Colyer
James Andrews, 3797 W. Colburn Road, Ludington, MI 49431

TONDU

December 17, 2003

Planning Commission
City of Manistee
550 Maple Street
Manistee, MI 49660

Dear Sirs:

Attached is the Project Environmental Assessment for the Northern Lights Project. This Assessment is provided as an addendum to the Special Use Permit application filed by Manistee Saltworks Development Corporation with the City of Manistee on September 24, 2003.

The Assessment is fully responsive to instructions from the Planning Commission dated December 8, 2003, and we therefore consider the Special Use Permit application for Manistee Saltworks Development Corporation complete, and request that the Commission give us written confirmation that this is the case.

We expect to reach an agreement with the City regarding our contribution for community services within the approval period for the application. These discussions have already begun.

This has been a very challenging process for all concerned and we appreciate the thorough and professional manner in which the Commission has conducted its business.

Sincerely,

Joe Tondu

R. J. Tondu
President
RJT/mjs

attachment

COMMUNITY DEVELOPMENT
BUILDING DEPT.
DEC 18 2003
CITY OF MANISTEE

TONDU COPORATION
14701 St. Mary's Lane, Suite 625
Houston, Texas 77079
832 379 4222
832 379 4333 fax
info@tonducorp.com

Northern Lights Project
Environmental Assessment

On December 8, 2003, the City of Manistee Planning Commission requested that Tondu Corporation provide an Environmental Assessment in order to complete the Manistee Saltworks Development Corporation Special Use Permit Application. The Commission provided a framework of questions and instructions for their completion in document MAN 1063-03C-008. In accordance with the instructions given by the Commission, these answers are concise and brief.

This document represents the Northern Lights Project Environmental Assessment as instructed by the City of Manistee Planning Commission.

1. Give an overall description of the site as it exists now. If the site is currently occupied, please indicate any buildings to be removed and what will be done with the demolition debris. Also include information on the following as it relates to the site:

The Northern Lights Power Plant is to be constructed primarily on property current occupied by General Chemical at 1501 Main Street in Manistee. Smaller, adjacent parcels of property will also be added to the north and south of the General Chemical site.

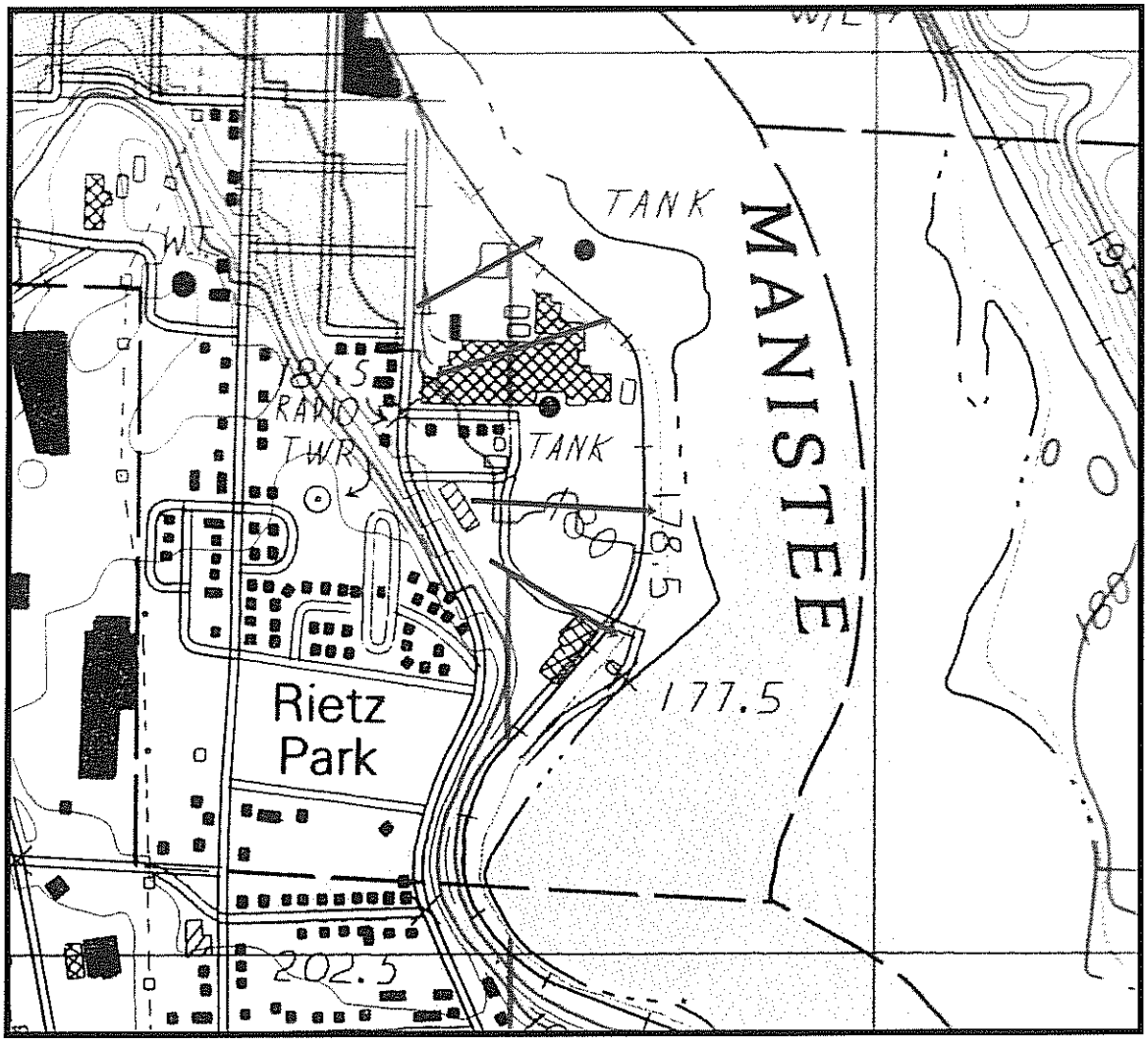
The General Chemical site is currently abandoned of operations, with the exception of a brine extraction well operation for export of brine solutions via ships for processing off site. All existing site buildings are planned to be demolished. All demolition debris will be removed from the site and disposed of, or recycled, in accordance with applicable Federal, State, and Local regulations.

- Flora and fauna (be sure to list any endangered species on-site)

The site has been heavy industrial for many years, and therefore has limited flora or fauna on the site. The plant life is limited to grasses and weeds that primarily grow near portions of the lake shore. Animal life is transitory, if any exists at all. According to the Michigan Natural Features database, there are no endangered or special concern animals or plants in the township and section of the General Chemical site.

- General topography and drainage patterns

The following map was taken from the USGS 7.5 minute Manistee quadrangle. Current surface drainage patterns are shown with red arrows. The project will change these surface drainage patterns. All drainage and runoff from developed areas will be directed to the site's drainage system for reuse and/or treatment.



- Adjacent waterways

The site lies on the western shore of Manistee Lake.

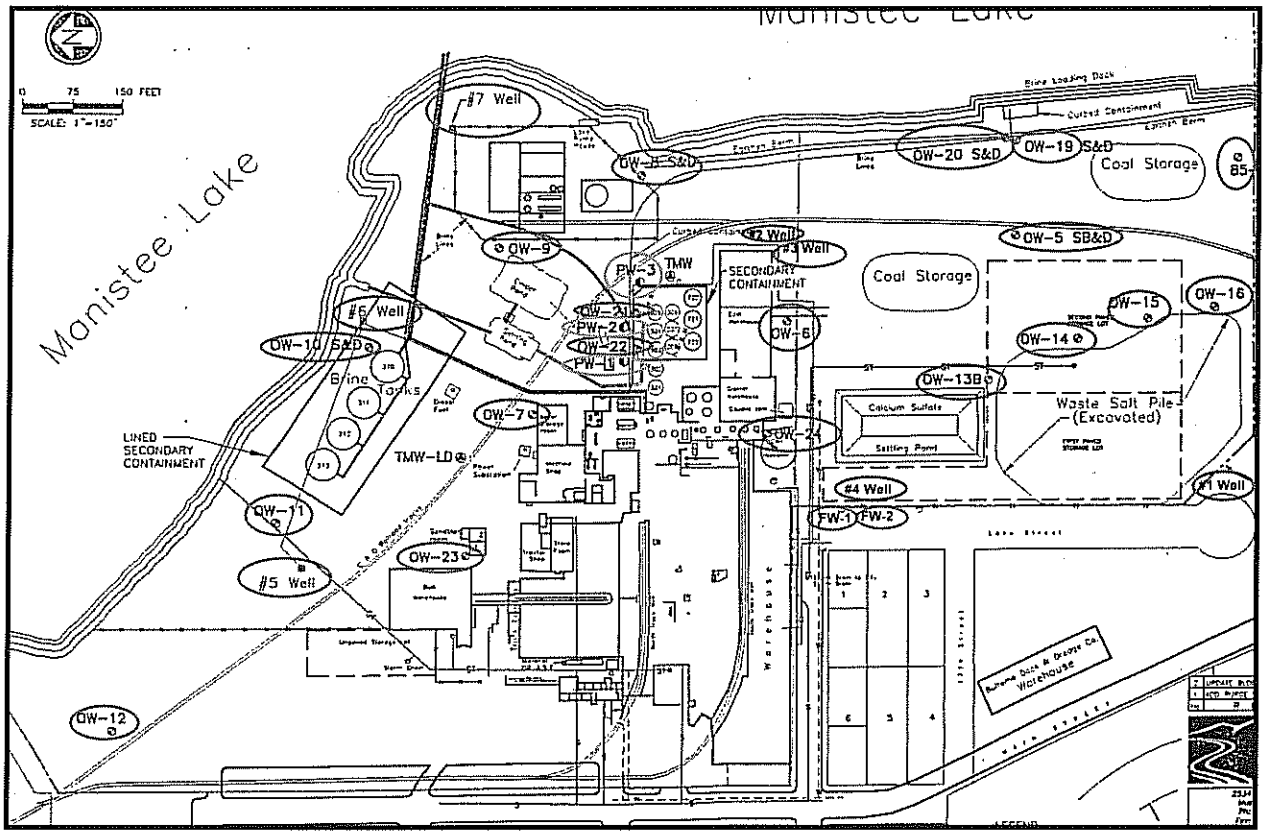
- Existing wells, approximate depth and use

There are many types of wells currently located at the site: injection and extraction wells formerly used in brine production (brine wells), process water wells (process wells), and groundwater quality monitoring wells (observation wells). The wells are completed at various depths, depending upon their purpose.

The following map depicts brine wells (in red), purge wells (in green), observation wells (in blue), and fresh water wells (purple). It is important to note that observation well 85, in the upper right hand corner of the map, is designated a Superfund Well.

There are additional, more recent wells, which are depicted on the attached "CC Recover Well Data" page.

Wells one through seven have been plugged, with the exception of well five, which is half plugged. The fresh water wells are owned by the City of Manistee.



2. Will there be any asbestos abatement issues based on the proposed work? If so, please describe the method to be sure this material does not get into the surrounding area.

Asbestos abatement will be conducted at the site prior to building demolition activities. All asbestos abatement activities will be conducted by licensed asbestos abatement contractors in accordance with applicable Federal, State and Local regulations, which prevent asbestos materials from becoming airborne.

3. Is there any existing contamination on-site? If so, please briefly describe the contamination on-site and what will be done on this project to mitigate or contain this contamination. If it is proposed to clean-up the contamination, please indicate the anticipated method as well.

The General Chemical site was formerly owned and operated by several salt mining and processing companies; Ambar (calcium chloride and bromine plant), Akzo Salt (sodium chloride extraction/Processing), Diamond Crystal Salt (sodium chloride extraction/processing), and Hardy Salt (sodium chloride extraction/processing). Numerous and specific environmental conditions do exist.

In October, 2000 Westshore Consulting conducted a Category S Baseline Environmental Assessment of what was then the Ambar site for General Chemical prior to General Chemical's purchase of the property. This BEA was conducted under the authority of the Michigan Department of Environmental Quality. A copy of this BEA has been provided to the Planning Commission. Should Manistee Saltworks Development Corporation purchase the property, we will conduct our own BEA and work plan as approved by the MDEQ.

Westshore consultants found the site had petroleum, petroleum by-products, chloride, and sulfate levels above Generic Residential Criteria limits. Several other contaminants also were found on site, but at levels below Generic Residential Criteria limits. Also, soil and groundwater contamination exists at the site from previous operations relating to the production of brine. Akzo is actively monitoring the site.

A Phase 1 Environmental Assessment was performed for Akzo Nobel Salt Company dated December 29, 1995. This Environmental Assessment has also been provided to the Manistee Zoning Administrator.

4. Does the project expect to disturb the existing contamination? If so, what will be done to contain and/or dispose of the generated waste?

During construction, if and when we disturb existing contamination, it will be properly characterized and disposed in accordance with all applicable Federal, State and Local regulations.

5. Will the project impact any coastal areas, or will there be riparian work along adjacent waterways? If so, please describe the work and how it is to be completed.

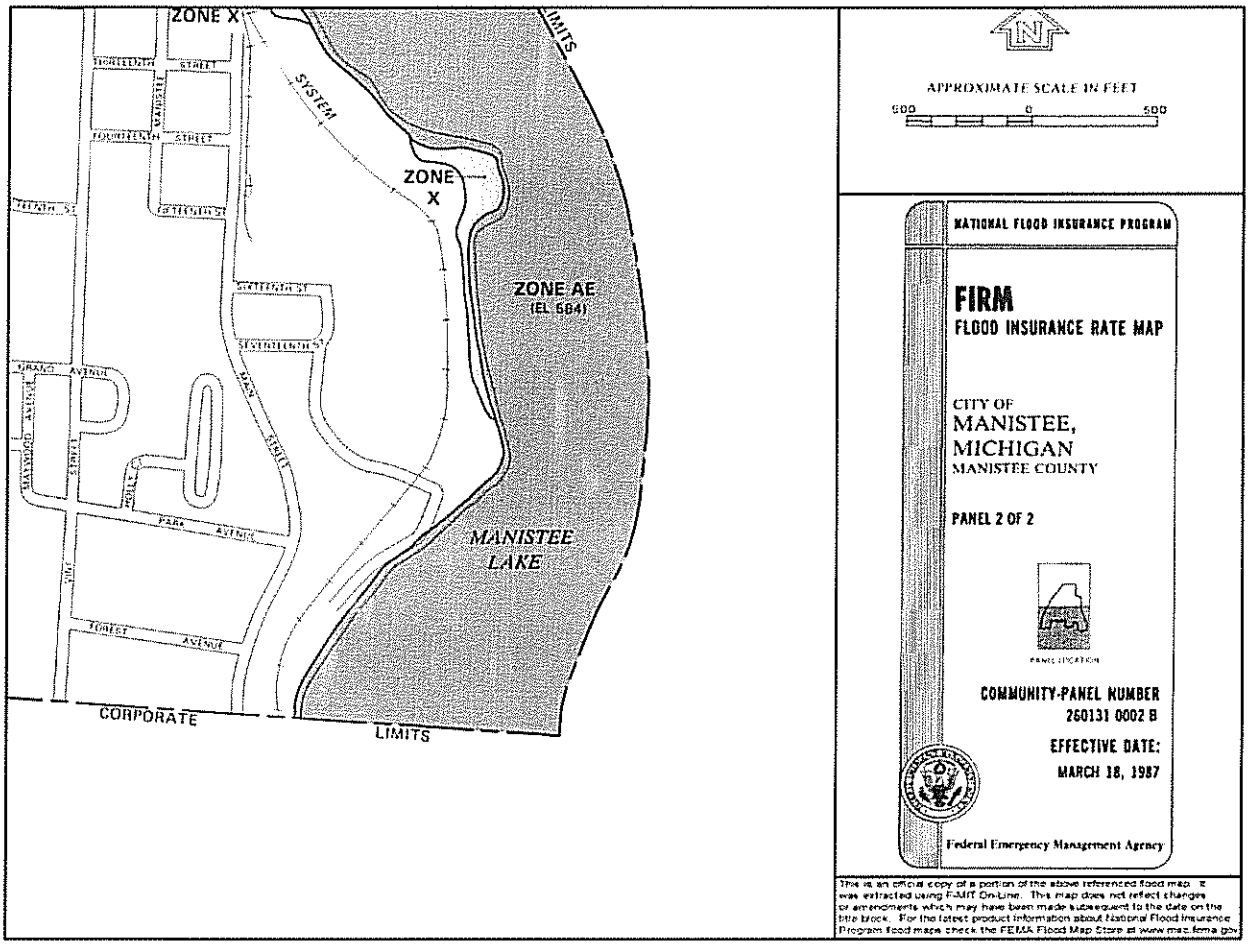
The project will not impact any coastal areas, but riparian work will be performed along the water's edge adjoining the General Chemical property. The water's edge will be improved and a seawall built along portions of the shoreline. This shoreline rework will direct runoff away from Manistee Lake back into the Northern Lights water treatment system.

6. Will any farmland be affected due to the proposed project?

No farmland will be affected due to the construction of Northern Lights Project.

7.	Describe all activities that will be within a flood plain, if any.

On the map below, issued by FEMA, Zone AE is the 100-year floodplain, and Zone X is the 500-year floodplain. Only a portion of the administration building might be located in the 500-year floodplain. All other operations, including the coal pile, will be outside this floodplain.



8.	Give a brief description of the existing soils on-site and as to the suitability of these soils for the proposed use.

Initial foundation design decisions were made based on soils investigation information found in a study prepared for the design and construction of the bromine facility on the site. The soil borings in this report indicate that the soil in the upper 20+ feet is generally very weak in shear strength and contains some compressible organic peat. Beyond this level the soil density improves to a medium dense classification by 30 feet and a dense classification by 45 feet.

For lightly loaded non-critical equipment or structures it should be feasible to utilize shallow foundations such as spread footings or mat foundations. For heavy loadings, and where equipment settlement criteria are crucial, we anticipate deep foundations such as steel piles filled with concrete. The actual method to design and construct the foundations will be determined by the recommendations of the final site geotechnical report.

9.	Does the existing site have historical significance? If so, what areas are of concern?

The site has no historical significance.

10. Please give a description of any emissions from the proposed development as it relates to air quality. If any emissions are proposed, give a brief description of each constituent and the effects of each constituent to nature and human life.

The Clean Air Act authorized the Environmental Protection Agency to regulate air pollutants that it considered harmful to public health and the environment. The EPA has designated six "criteria pollutants" that it considers harmful to the public health: particulate matter, nitrogen oxides, sulfur dioxide, carbon monoxide, volatile organic compounds, and lead.

The operation of the Northern Lights Plant will emit all of the above. This, and other information, is contained in Manistee Saltworks Development Corporation's Air Permit Application that was submitted to the MDEQ on September 10, 2003. A copy of this application has been made available to the Planning Commission and the public by putting it on file at the Manistee County Planner's Office and with the MDEQ in Lansing. Our application is currently being reviewed by the appropriate agencies.

The emissions of each criteria pollutant from the Plant are demonstrated to be at levels acceptable to the EPA and the MDEQ under current law. We believe that these emissions will result in no significant deterioration of the air quality in Manistee County as defined by state and federal regulations. As such, there would be no harmful effects from each pollutant on human health or welfare.

The EPA is proposing to regulate mercury emissions from coal fired power plants. The proposed regulations are expected before the end of the year, but implementation is not expected until 2005. The mercury emissions from the Northern Lights Plant will be significantly lower than existing coal fired power plants in Michigan. In addition, the Plant will comply with all regulations regarding mercury emissions at the onset of plant startup.

11. Will any hazardous waste be stored on-site? If so, what.

As indicated in the Manistee Saltworks Special Use Permit Application, the project will not involve the generation, on-site treatment, storage, or disposal of hazardous waste.

12. Will there be any discharges from the site either of storm water, process water or otherwise? If so, please specify what will be discharged and the possible effects this discharge may have on the receiving waters. If cooling water is to be discharged, please specify the approximate discharge temperature.

Only the sanitary sewer leaves the plant in an unblended form. The cooling tower blowdown is not discharged from the plant as an isolated stream it is combined with the other plant process wastewater and coal pile runoff water before leaving the site. This combined stream will either be sent to the City of Manistee or treated to the required level for a permitted discharge into Lake Manistee. Calculating the temperature of this discharge is very complex and will be affected by several final water balance design decisions and the incorporation of any State limitations on the allowable differential between the discharge temperature and the lake temperature. The discharge will total less than 1 MGD (millions of gallons per day) in comparison to 14.5 MGD which is currently permitted on the site. The plant discharge will represent less than one percent of the Little Manistee River's daily flow of 110 MGD and therefore will have very little impact on, either the quality or the temperature of, the southern portion of Lake Manistee.

13. Has a Federal, State, or local regulatory authority ever conducted an Environmental Assessment, Environmental Impact Statement, or a preliminary assessment/site inspection or environmental survey of the site? If yes, give a brief description of the findings and provide a copy of the report or results.

The following has been confirmed with the City of Manistee's administrator, FTC&H in Grand Rapids, and MDEQ's Cadillac office.

To our knowledge, no federal, state, or local regulatory authority has ever conducted an environmental assessment, environmental impact statement, preliminary assessment or environmental survey of the site.

Only the MDEQ has performed a site inspection on the property. The MDEQ has performed numerous and extensive site inspections over the last fifty years. These inspections are too lengthy to attach to this document, but the inspections are available at the MDEQ's Cadillac office or by contacting Mr. Bill Duley at that office at (231) 775-3960 ext. 3611.

14. Will the proposed development impose any operations which will be loud enough to be heard by adjacent properties? If so, please describe the cause and the anticipated decibel level.

The regular operations of the plant will generate noise at levels no greater than 65 decibels at the property line. Sources of noise include coal pile operations, cooling towers, boiler operations, and turbine generation.

15. Will the proposed project alter traffic patterns in the area of the site? Outlying areas? If so, please provide estimated traffic volume on a per month basis.

Fly ash will be disposed of at either Shoreline Landfill or the TES Landfill, both of which are located a short distance from the Northern Lights facility and are within Manistee County. It is estimated that up to 20 roundtrip loads per day of fly ash will be hauled to the landfill. Additionally, approximately 4 trucks of bottom ash per day will be recycled. This will be considerably less traffic than was generated by previous industries on the site. In 1992, Akzo Salt had up to 70 trucks per day and in 1999, Ambar Chemical Company had up to 20 trucks per day.

16. Discuss the plans for site restoration after construction.

After construction the site will undergo industrial landscaping to improve the aesthetics of the plant site, especially the perimeter. The landscaping, as indicated on the site plan, will include the planting of bushes, trees, and native grasses. Specifically, several trees and bushes will be planted and a pond will be built along the perimeter that faces Main Street, and native grasses will be planted along portions of the shoreline.

17. Please describe how sanitary waste will be handled for the project both during construction and after completion.

During both construction and commercial operation sanitary waste water will be put into the existing City of Manistee system.

18. How will potable water be provided to the site? Are there any wells or lake-draw systems proposed for the project?

Potable water will be provided by the City's water system. Sufficient supply is currently available in comparison to past industrial uses on the site. Process water and fire protection water will come from a lake-draw system that will require approximately 4,200 gallons per minute. There are no active fresh water wells on the General Chemical property.

19. Discuss any additional items as needed to relay the potential environmental impacts of the proposed project.

Tondu Corporation has made several documents, including the air permit application and the related modeling, available to the Planning Commission detailing our estimated environmental impacts. In the near future Tondu will file a water outfall permit with the MDEQ that will include additional detail on water impacts.

What is less known about the site is when and how it would be cleaned up if the Northern Lights Project does not move forward. There are a number of hazardous conditions that exist today that, if left untreated, could have serious long-term consequences on human health and welfare in Manistee. Some of these conditions include:

- Rainwater runoff from the coal pile on the General Chemical property continues to drain directly into Manistee Lake and leach into the soil and water table.
- Air particles from the site are blown primarily south into residential neighborhoods. These particles are significant, unlike the coal pile proposed for Northern Lights, which will have a state of the art dust suppression system.
- Just below the surface on the south end of the project site there is two feet of waste salt that continues to leach into the water table and into Manistee Lake.
- Next to the waste salt pile is a calcium sulfate pile that would need to be remediated and filled to prevent additional leaching into the groundwater.
- The General Chemical site includes an ash pond and a settling pond. Both ponds took waste from the operations and both ponds are unlined. These ponds are close to the lake and leach quickly into the water table and from there into Manistee Lake.
- According to previous site studies, the General Chemical Dorr Clarifier is considered a "hot spot" for sulfates, and would need to be professionally remediated and removed.
- Caustic substances are contained in front of the bromine plant on the General Chemical site. This substance would need to be neutralized and professionally remediated.

In addition to the hazardous conditions that will be remediated prior to construction of the Northern Lights Plant, there are several offsets that the Planning Commission must consider. These emission reductions are minimal compared to the Northern Lights Plant, but they must be considered. The acquisition of the property by Manistee Saltworks Development Corporation and the subsequent construction of the Northern Lights Plant will result in the elimination of the following permitted emissions from current operations:

- PM10 and NOx from the calcium chloride prill plant
- PM10 and NOx from the Euflake plant for calcium chloride production
- PM10 emissions from the Eudry for calcium chloride production
- PM10, Sox and NOx from the stack vent and B&W boiler
- PM10, Sox and NOx from the wicks boiler
- All emissions from the bromine plant

Examples of actual emissions of various pollutants from the plant during operation (except for individual air toxics) for the calendar year 2001 are shown on the attached table.

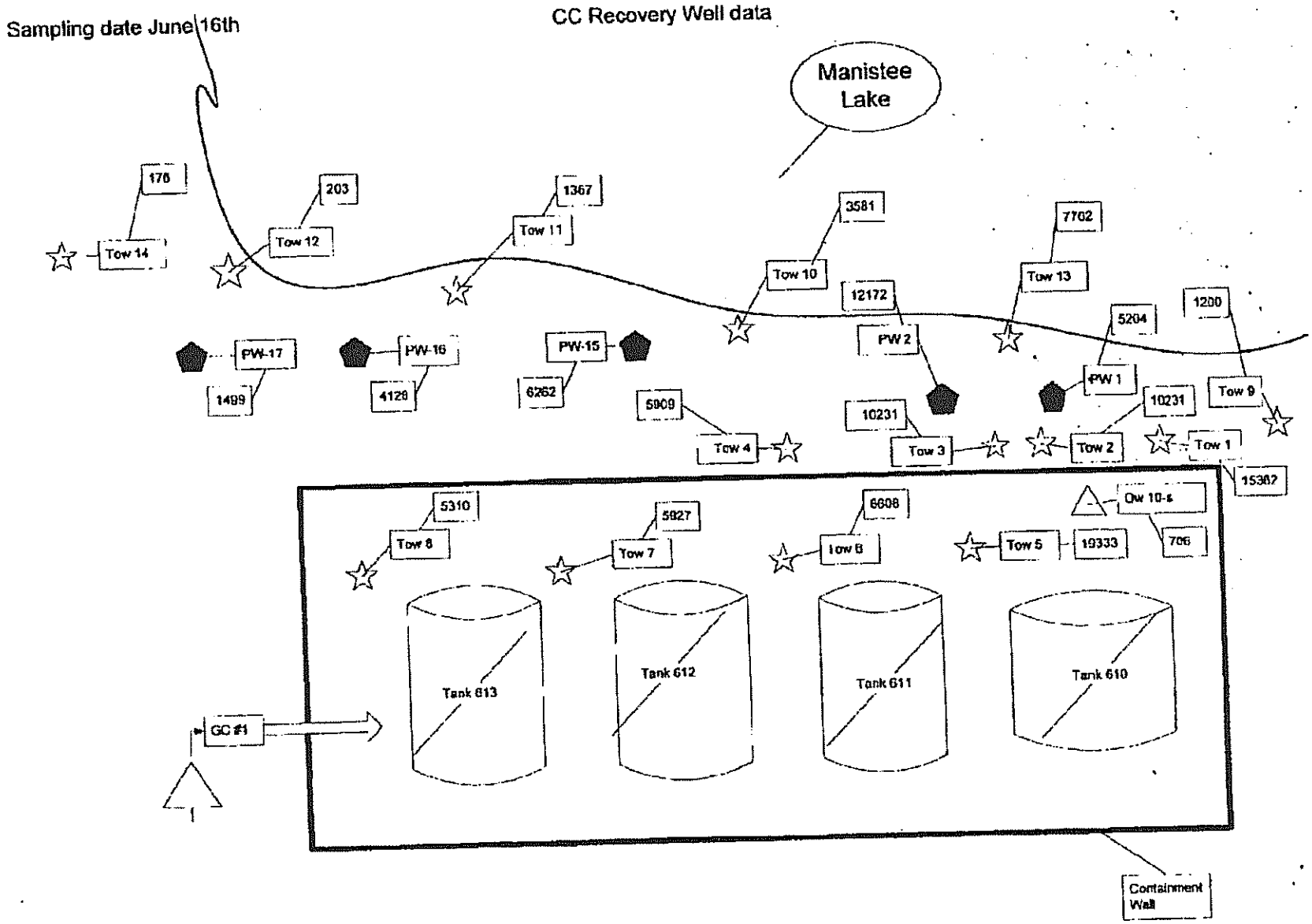
In addition to these reductions in emissions, the Northern Lights Plant would eliminate a significant risk to the residents of Manistee. The Ambar risk management plan for the bromine plant included details on the storage of 90 tons of chlorine necessary for the process. This chlorine would be moved via railroad through the heart of Manistee. Once on site, the risk management plan detailed a worst-case scenario in the case of a chlorine leak: the effected area for the chlorine cloud would cover an area with a radius of 9.9 miles. This area includes 11,734 Manistee residents, according to the Ambar risk management plan dated 6/17/99.

With the Northern Lights Plant the residents of Manistee will be getting an active corporate citizen committed to civic and environmental responsibility. The Plant will comply with all the newest and most stringent environmental regulations, in addition to contributing to the economic growth of Manistee.

Without this development, this blighted site is and will continue to be an unused and undeveloped toxic property that will put the residents of Manistee at risk.

Facility Name:	**GENERAL CHEMICAL INDUSTRIAL PRODUCTS INC.**
County:	Manistee Co
City:	MANISTEE
AQD District:	Cadillac District
Primary SIC:	2899
SIC Description:	Chemicals and Chemical Preparations
Processes at This Facility - Year 2001:	
Emission Unit/Description:	**EU0007** - CALCIUM CHLORIDE FLAKE PRODUCTION
ProcessID/SCC Code/Description:	**P17S01** / 30190003 / FLAKE PLANT NATURAL GAS HEATER
Pollutant:	NOX - 0 TON(S)
Pollutant:	PM-PRI - 0 TON(S)
Pollutant:	PM10-PRI - 0 TON(S)
Pollutant:	SO2 - 0 TON(S)
Pollutant:	VOC - 0 TON(S)
Emission Unit/Description:	**EU0008** - WICKS GAS BOILER
ProcessID/SCC Code/Description:	**P08S01** / 10200602 / WICKS NATURAL GAS BOILER
Pollutant:	CO - 4.645 TON(S)
Pollutant:	NOX - 5.53 TON(S)
Pollutant:	PB - 0.000025 TON(S)
Pollutant:	PM-PRI - 0.4205 TON(S)
Pollutant:	SO2 - 0.033 TON(S)
Pollutant:	VOC - 0.304 TON(S)
Emission Unit/Description:	**EU0018** - WICKS COAL BOILER
ProcessID/SCC Code/Description:	**P09S01** / 10200204 / WICKS COAL BOILER
Pollutant:	CO - 5.6325 TON(S)
Pollutant:	NOX - 12.3915 TON(S)
Pollutant:	PB - 0.0145 TON(S)
Pollutant:	PM-PRI - 13.518 TON(S)
Pollutant:	PM10-PRI - 8.7865 TON(S)
Pollutant:	PM25-PRI - 3.6045 TON(S)
Pollutant:	SO2 - 56.505 TON(S)
Pollutant:	VOC - 0.056 TON(S)
Emission Unit/Description:	**EU0019** - B&W COAL BOILER
ProcessID/SCC Code/Description:	**P14S01** / 10200204 / B & W COAL BOILER
Pollutant:	CO - 30.09 TON(S)
Pollutant:	NOX - 66.198 TON(S)
Pollutant:	PB - 0.07905000 TON(S)
Pollutant:	PM-PRI - 72.216 TON(S)
Pollutant:	PM10-PRI - 46.94 TON(S)
Pollutant:	PM25-PRI - 19.2575 TON(S)
Pollutant:	SO2 - 208.1025 TON(S)
Pollutant:	VOC - 0.3005 TON(S)
Emission Unit/Description:	**EU0020** - CALCIUM CHLORIDE PRILL PRODUCTION

ProcessID/SCC Code/Description:	**P19S01** / 30190003 / PRILL PLANT NATURAL GAS BURNER
Pollutant:	NOX - 3.829 TON(S)
Pollutant:	SO2 - 0.016 TON(S)
Pollutant:	VOC - 0.0765 TON(S)
ProcessID/SCC Code/Description:	**P20S01** / 30199999 / PRILL PRODUCTION
Pollutant:	PM10-PRI - 3.9645 TON(S)
Emission Unit/Description:	**EU0021** - DRY CALCIUM CHLORIDE PLANT SHIPPING AND HANDLING
ProcessID/SCC Code/Description:	**P24S01** / 30510198 / DRY CALCIUM CHLORIDE PLANT SHIPPING & HANDLING
Pollutant:	PM-PRI - 0.934 TON(S)


Sampling date June 16th
CC Recovery Well data
Manistee Lake
176
Tow 14
203
Tow 12
1367
Tow 11
3581
Tow 10
7702
Tow 13
12172
PW 2
5204
PW 1
1200
Tow 9
PW-17
1499
PW-16
4128
PW-15
6262
5909
Tow 4
10231
Tow 3
Tow 2
10231
Tow 1
15302
5310
Tow 8
5927
Tow 7
6608
Tow 6
Tow 5
19333
Ow 10-s
706
Tank 613
Tank 612
Tank 611
Tank 610
GC #1
Containment Wall

City of Manistee
70 Maple Street • P.O. Box 358 • Manistee, Michigan 49660
231-723-2558
FAX 231-723-1546

December 30, 2003

Tondu Corporation
14701 St. Mary's Lane
Suite 625
Houston, TX 77079

Attention: Mr. Joe Tondu

RE: Environmental Assessment
Northern Lights project

Dear Mr. Tondu:

We have reviewed the Environmental Assessment, as submitted by you for the Northern Lights Project, and have the following questions/concerns regarding your responses. Each item number relates to the specific item number in the assessment.

Item 1
Please provide more in-depth information of the existing buildings and/or tanks on-site that are to be demolished or removed. Indicate the type of structure and what will remain in the building during demolition.

Item 1, last bullet
Please provide some general depth information on the wells.
Is the Superfund well (well #85) an observation well or pumping well?

The drawing cited in the response titled "CC Recover Well Data" is difficult to follow. Are all of these wells on the site in question? What are the numbers associated with each well? The sampling date is June 16 of what year? What are the tanks? It would be best to locate these wells on the site plan (if not already on the plan) and provide a legend as to what the symbols and numbers stand for.

Item 2
Please assure the City of Manistee that the abatement and removal of asbestos will be handled by a State licensed asbestos contractor. If a list of State approved asbestos abatement contractors exist, please provide that list in your response. Also, please indicate what regulatory agency regulates asbestos abatement.

Item 3
Indicate the anticipated method for removal and or remediation of encountered contamination on-site. Please provide a copy of a State-approved remediation plan once completed.

City of Manistee

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

231-723-2558
FAX 231-723-1546

December 9, 2003

Mr. Lee Sprague, Ogema
Little River Band of Ottawa Indians
375 River Street
Manistee, MI 49660

Dear Ogema Sprague:

Thank you for the Little River Band of Ottawa Indians' participation in the Manistee Planning Commission's required review of the Northern Lights application.

The key to the City Manager form of local government is to ensure that all decision-making boards, whether it is City Council, Planning Commission or Zoning Board of Appeals, have been adequately informed and educated in an unbiased setting. This allows them to make the best decision for the entire City. Acceptance of the LRBOI check has the potential and would have been perceived by a certain segment of the community, as affecting this unbiased decision-making setting. Therefore, under these circumstances your offer of $4,200 cannot be accepted by the City of Manistee. Please know that if a supporter of the Northern Lights Project would have offered a check for a study, we would not have accepted their money either.

The City's form of government centers around process, informed/educated decision-makers and appearance. My profession was created to ensure that all of these criteria were incorporated into our daily procedures.

Thank you again for the LRBOI participation in the Planning Commission process.

Sincerely,

CITY OF MANISTEE

Mayor Richard Mack

MDD:cl

cc. Members of City Council
Members of the Planning Commission
City Manager Mitch Deisch
City Attorney Bruce Gockerman
Community Development Director Jon Rose

MANISTEE CITY PLANNING COMMISSION
70 Maple Street
Manistee, Michigan 49660

Re: **Proposed 425MW Power Plant**

There have been many excellent and thoughtful articles and letters written opposing this project. I too believe this would be the wrong site for this huge plant and it would be a bad deal for Manistee.

Let me suggest four more points to consider:

- New fire equipment necessary to fight a fire in an 18 story industrial building is specialized and extremely expensive and would have to be owned and operated by the city, evidently without offsetting property tax revenue from the plant.

- Would the bedrock in the area support the massive concrete foundation required for such a huge facility? It is also possible that the bedrock has been undercut by more than a century of chemical mining operations.

- The millions of gallons of river water passing through the plant must be chlorinated to keep the condensers free of algae. Together with the measurable rise in river water temperature, I believe this would decimate the fish in Manistee Lake and the Manistee River. If there were any salmon left, wouldn't the annual spawning run plug the river water intake with dead fish?

- Fly ash is so fine that it flows like a liquid. Dumping it on a landfill would create a huge dust bowl.

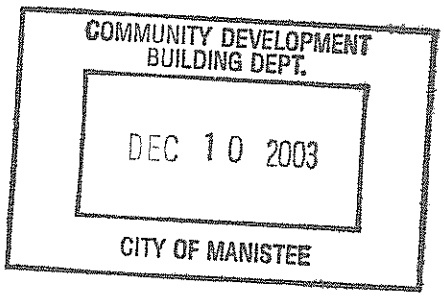
These should be added to all the other issues to be investigated by independent experts before granting a special use permit.

R. Landback

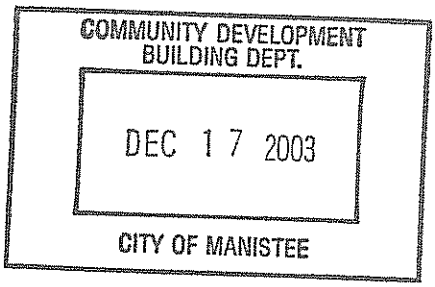
Dick Landback, retired Detroit Edison engineer
12777 Lakeview Drive
Bear Lake, Michigan 49614

December 9, 2003

copy to:
Mr. Dave Barber, Editor
Manistee News Advocate
75 Maple Street
Manistee, Michigan 49660



3695 Lakeshore Drive
Manistee, MI 49660



December 10, 2003

Mr. Jon Rose
City/Community Development Director
C/O Manistee Planning Commission
City Hall
70 Maple Street
Manistee, MI 49660

Recently I attended a planning commission meeting where I was of the impression that the variables surrounding whether or not to grant a special use permit to the Tondu Corporation would be discussed.

I was surprised by the lack of any structured review process of the application by the commission and by the repeated deference to the Tondu Corporation by commission members for definition of what yet needed to be done. I was most surprised when the Tondu Corporation was asked by the chairman as to when the corporation could have an environmental impact assessment ready. Given what I understand to be two major concerns for a special use permit, namely the shoreline impact of any development and the discharge from any development into waterways, and given the magnitude of the project and what I understand to be the history of the Tondu Corporation, it would seem that the commission would want an independent evaluation completed before any conclusions can be reached and before any decisions can be made.

As a result of my surprise regarding the conduct of the review process, and after the many citizens that were present provided well thought out arguments and well researched objections to the plant, I began to look more deeply into this proposed project. My need to explore was spurred on by comments made by Mr. Tondu who indicated that mercury a relatively new toxin, and like aspirin, a little bit is okay but a lot is a problem.

The pollution impact on the community has been well documented by the Tondu Corporation and by articles in the newspaper. The recent visuals printed in the "News Advocate" show that 74% of the mercury in an area 1.5 miles surrounding a coal fired plant comes from that one plant. This is quite revealing and should raise considerable concern.

I am writing this letter to share with the community additional concerns, beyond those voiced above, which I have come to consider as I explored further the proposed project. These concerns are as follows:

- As much of the rush to welcome this project by our government agencies and related development organizations seems to be fueled by the attraction of money and jobs, just how much money are we talking about? If municipalities beyond the Tondu Corporation will own this proposed facility, they will be excused from paying taxes. If abatements are given by way of incentives from the local community and easements because of brownfield development, just how much is there going to be that will benefit local government? Will the amount left be able to offset the increased costs that will be incurred by the community with this proposed development? I will enumerate some of those costs later. What about the number of jobs and what of their job descriptions? There are no answers. Who will need to be employed? There are no clear answers. There have been statements made that most of this proposed plant will be automated. This all is very ambiguous in regard to employment impact.

What are some of the areas in which cost will probably increase to the tax-paying public of the Manistee area?

- New fire equipment, staff and training to be able to service the new plant
- Wear and tear and probable replacement of bridge opening mechanisms
- Potential damage to river channel shoreline and moorings of businesses along the channel because of increase of large boat traffic
- Wear and tear on roads during the construction phase
- Extension of utilities and services to the new plant and maintenance of them
- Processing and containment of probable toxic materials removed during construction
- Depletion of space at the landfill because of dumping of daily ash residue requiring the development of a new landfill

During my exploration, a whole series of additional questions and concerns came into focus. They are as follows.

- It may be that under Federal guidelines, Tondu Corporation does not have to remove toxic materials that already exist on the site, but simply contain them as they build. This certainly contradicts what many had been led to believe.
- There may be discharge of tainted ballast water as the large ships intake and discharge ballast water in their trips through the channel and lake.
- There may be disturbance of toxic materials already lying on the river and lake bed because of the regular traffic of large boats.
- There will probably be a disturbance of toxins on the bed of the lake during construction of the dock for the boats, and regularly during their ingress and egress.
- There will be a discharge of chlorinated cooling water into Manistee lake.
- The temperature of the lake water will increase.
- There will be coal particulate circulated in the air and deposited in the water and surrounding area from the uncovered piles of coal.

- There will be a disturbance of the skyline during the day and night because of the large structure and 400 foot tower. It will become the focal point for the community at all times. It will be brightly lighted all night.
- The noise of the turbines and generators will be noticeable 24 hours a day, seven days a week.
- There will be a health risk and perhaps a life risk to citizens needing emergency attention because of the increase in frequency and length of bridge openings.
- There may be a presence of large coal trains during winter months disrupting the flow of traffic through Manistee.
- High tension power transmission lines will be necessary to carry the electricity across the landscape of Manistee and Manistee county, both north and south.
- There will be a daily impact of transporting truckloads of coal ash through the city of Manistee.
- There will be an environmental impact on the quality of soil and air around the landfill because of the extreme difficulty in containing coal ash.

In the process of my exploration, I was encouraged to explore the past record of the Tondu Corporation involved projects. I have not done that. But, it would seem prudent to examine that. A speaker at the commission meeting mentioned that the community was burned in the past. He said something to the effect that we can say shame on them for doing what they did, but if we let them do it again, we should say shame on us. What does this mean? What is the record of the Tondu Corporation in regard to the environment, including air quality, ground and water contamination? What do we know about previous developments? What do we know about the Tondu Corporation as far as their ability to partner positively with the communities in which they operate?

Given my personal review, which resulted in more concerns than those addressed above, I ask **where is the leadership that has the public interest in mind and holds in their hands the public trust? Why is there no open systematic review of these troubling issues?**

Let me review a few key points that should cause one to take pause.

- There appears to be no systematic review process of the requirements for granting a special use permit. There appears to have been no review of the DEQ air quality permit and what it means. There appears to be no intent to have an independent appraisal of the impact upon the environment of the proposed project. The impact on shoreline and potential discharge problems is ambiguous at best.
- There is no clear understanding of what can be anticipated in the amount of additional revenue stream to the community short and long term.
- There appears to have been no assessment of the increased expenses that will be incurred if the proposed plant is permitted and which expenses will eventually be borne by the taxpayers of the area.

As a citizen of the area, I ask that responsible review be demonstrated and systematic procedures be developed and be transparent to all of us in the community so we can understand the deliberation process by which this proposed project is being evaluated. It would be foolhardy to trade a hoped for short term revenue stream(at present very poorly defined, if at all) for long term financial, health and lifestyle burden on the community. I urge more open and detailed review and consideration of the positive and negative impact of the project and open forum reviews of the conditions that are and are not being met in the application process.

In support of responsible development.

Daniel W. Behring

Brown Township
Manistee County, Michigan

Date: December 15, 2003
To: Manistee City Planning Commission
Re: Proposed Tondu coal-fired electric plant

We, the Brown Township Board of Trustees make the following request of the members of the Manistee City Planning Commission as they review the application for the proposed Tondu coal-fired electric plant:

That careful consideration be given to the effects of air pollution on the people who live down wind of the proposed plant as well as the effects of potential pollution on the land, lakes, rivers, fish and wildlife in surrounding areas;

That the commission seek out qualified, independent sources of information in order to obtain objective answers to these concerns; and

That in its deliberations, the commission members do not rely solely upon information supplied by the applicant to determine potential harm to the surrounding communities.

Thank you for your consideration.

Brown Township Board

Pamela Tompke

Pamela Tompke
Clerk

COMMUNITY DEVELOPMENT
BUILDING DEPT.
DEC 18 2003
CITY OF MANISTEE

CC: Manistee City Council
Manistee County Board of Commissioners

Manistee Conservation District
8840 Chippewa Highway (U.S. 31)
Bear Lake, Michigan 49614-9400
(616) 889-4761 Fax (616) 889-4020

December 17, 2003

City of Manistee
Attention: Jon Rose, Community Development Officer
550 Maple Street
Manistee, Michigan 49660

Dear Mr. Rose:

I would like to inform you that the Manistee Conservation District has adopted a resolution regarding the purposed Northern Lights Project in the City of Manistee. The enclosed resolution was adopted by the Board of Director's of the Manistee Conservation District on December 17, 2003.

It is the desire of the Manistee Conservation District's Board to inform the City of Manistee's, City Council and City Planning Commission of the District's resolution at their next scheduled meeting. If for some reason the City Council and/or the City Planning Commission will not be informed of this resolution please advise me of that. If you need any further clarification or additional information please contact me.

Sincerely,

Jay Raupp
Administrator

enclosure (1)

COMMUNITY DEVELOPMENT
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DEC 19 2003
CITY OF MANISTEE

All Conservation District programs and services are offered on a nondiscriminatory basis without regard to race, color, national origin, religion, sex, age, marital status, handicap, height or weight.

ManisteeConservation District Resolution of Concern Regarding the Northern Lights Project (the proposed coal fired electric facility on Manistee Lake)

We value progress that strengthens our communities and our farms.

We value stewardship of our natural environment, on which current and future generations rely.

We value clean water, both on the surface as lakes, streams, ponds and wetlands and subsurface as groundwater.

We value land that is uncontaminated and productive.

We value air that is clean and unpolluted.

We support economic development that does not threaten these values.

We believe that the discharge of mercury, lead and other heavy metals from coal fired electric facilities is a threat to these values.

We believe that emissions of sulfur dioxide and nitrogen oxide, major causes of acid rain, from coal fired electric facilities are a threat to these values.

We are concerned about carbon dioxide emissions, a leading cause of global climate instability, from coal fired electric facilities.

We believe that an environmental assessment produced by the developer of the Northern Lights Project is inadequate to identify the environmental implications of the project and that an Environmental Impact Statement (EIS) should be required.

Because of the potential threats to our values, we hereby express our concern about the Northern Lights Project and urge preparation of an EIS prior to the issuance of a Special Use Permit by the City of Manistee, Air Quality Permits by state and/or federal agencies, and other permits that would allow construction of the proposed Northern Lights Project. Upon review of an EIS we would reconsider this resolution.

I hereby certify that this is a true copy of a resolution adopted by the Manistee Conservation District at the December 17, 2003 Board of Directors Meeting

Jeanne Crampton

Jeanne Crampton, Secretary

December 17, 2003

Dec. 17, 2003

City of Manistee
70 Maple St.
P.O. Box 358
Manistee, Mich 49660

To whom it may concern:

We have been informed of the application to the planning commission for a permit to build a coal fired electrical generation plant in your area. Apparently Joe Tondu has stated that any pollution will blow "far far away" — to the Traverse Area perhaps?

In an era of renewable energy, when the rest of the world is installing wind mills, can you explain why Manistee is considering horse and buggy technology which will harm others with pollution, acid rain, etc.?

my son has just spent three years of his life building his own home and planning to start a small organic farm. Acid rain harms soil and crops as well as people.

Please tell Mr Tondu, aka Manistee Salt works, aka Northern Lights, that he is wrong, that it is not a good idea to build a 400 foot tall smokestack to blow the pollution to other areas.

Renewable energy is here, now, available and being used all over the planet.

Sincerely
Arlene Montgomery
4450 E. Gauthier Rd.
Cedar, Mich. 49621

COMMUNITY DEVELOPMENT
BUILDING DEPT.
DEC 22 2003
CITY OF MANISTEE

SIERRA CLUB
FOUNDED 1892

COMMUNITY DEVELOPMENT
BUILDING DEPT.
DEC 23 2003
CITY OF MANISTEE

City of Manistee Planning Commission
70 Maple Street
Manistee, Michigan 49660

December 22, 2003

Dear Commissioners,

On behalf of the Traverse Group of the Sierra Club and our 730 members, including those who reside in Manistee County, I submit into official record a resolution to oppose the "Northern Lights" coal plant, passed unanimously by our Executive Committee.

This resolution lists only a few of our concerns regarding the proposed plant and its impacts on the environment and the residents of Manistee County, as well as the residents of Norhtern Michigan and Canada. Other concerns, too numerous to mention, include the impact from noise and light pollution, the fact that the Tondu Corporation's application meets only minimum environmental standards, the unanswered questions regarding the actual brown field clean-up, and the issue of environmental justice, which is one of the Sierra Club's top campaigns in this state and nationwide, as this plant is proposed for a low-income area of Manistee.
The promise of new jobs is a tactic that is both misleading and insulting, as the majority of the new jobs that the Tondu Corporation is promising will likely be given to those currently employed by the corporation and brought in from other locations.

Please file this resolution into all files and records pertaining to the Tondu Corporation's request to build a coal burning plant in the City of Manistee.

Thank you,

Monica Evans

Monica Evans, Chair
Traverse Group of the Sierra Club
3840 Blueberry Lane
Honor, Michigan 49640

SIERRA CLUB
FOUNDED 1892

Resolution of opposition
Manistee Saltworks Coal Plant in the City of Manistee

Whereas, the Traverse Group of the Sierra Club has grave concerns regarding the plans of the Tondu Corporation, aka Manistee Saltworks, to build a 425 megawatt coal burning electrical generating plant in the City of Manistee; and

Whereas, realizing the impacts that the 450 tons of ash, generated daily that will be disposed of in an area landfill; and

Whereas, being deeply concerned with the unavoidable emissions of nitrogen oxides, carbon dioxide greenhouse gases, airborne lead, particulate matter, sulfur dioxides, and their direct link to ground level ozone or smog, acid rain, and their proven hazardous health effects such as asthma, heart and lung disease; and

Whereas, according the United States Environmental Protection Agency, coal plants are responsible for nearly 60% of PM10 emissions (particles 10 microns or less in diameter), and Whereas, The United States EPA finds the smallest of these particles, 2.5 microns or less in diameter, caused by burning fossil fuels and the chemical reactions of nitrogen oxides and sulfur dioxides emitted by coal plants, to be the most dangerous to human health; and

Whereas, contamination of lakes and streams due to mercury from coal burning plants is known to be, as a result of many coal burning plants in this country, at levels sufficient to concentrate (and contaminate) in the food chain and cause brain damage in children; and

Whereas, being fully aware of the environmental impacts that the proposed plant's warm water discharge would have on the water quality, fish and aquatic species and habitats of Lake Manistee; and

Whereas, in addition to the impacts on Lake Manistee, the Traverse Group of the Sierra Club realizes the additional environmental impacts of said water discharge in to Lake Michigan from Lake Manistee; and

Whereas, acknowledging that the Tondu Corporation has already proven itself to be poor stewards of the environment and untruthful to the residents of Manistee County regarding their already-operating co-generation plant in neighboring Filer City; and

Whereas, the Traverse Group of the Sierra Club, whose mission is to protect and preserve the environment, including our water, air, soil, wildlife and their habitats, and thereby protecting the health and well-being of citizens, not only in Northern Michigan but the environment of the United States of America, Canada and the entire planet and all of its people as well,

RESOLVED, that the Traverse Group of the Sierra Club hereby opposes the construction of the proposed coal burning plant by the Tondu Corporation and hereby urges the City of Manistee to reject this project.

TROUT UNLIMITED

Pine River Area Chapter

City of Manistee
70 Maple St.
Manistee, MI 49660

December 19, 2003

Dear Council Members,

The Pine River Area Chapter of Trout Unlimited is adamantly opposed to the construction of a new coal burning electricity plant by TONDU in our area.

This plant will have detrimental effects on not only the local fisheries but affecting all fisheries of Michigan, Ontario and the entire US. Coal burning power plants release tons of harmful chemicals; a 500 megawatt plant produces 3,700,000 tons of carbon dioxide, 10,200 tons of nitrogen oxide, 10,000 tons of sulfur dioxide, 700 tons of carbon monoxide. Coal burning plants also produce mercury and arsenic that are very harmful to people. The DNR releases a fish advisory every year to warn against the consumption of fish containing mercury. Mercury is so poisonous that $1/70^{th}$ of a teaspoon can make fish in a 25 acre lake unsafe to eat. The mercury that could be produced from TONDU at this facility could be over 200 lbs a year and virtually make all of Michigan's best fishing lakes useless.

The emission of chemicals is not the only problem. Coal burning plants produce warm water discharge into lakes and rivers. TONDU is proposing to build this plant right next to the single most important steelhead egg taking facility in the US. The DNR weir on the Little Manistee supports all the state of Michigan with steelhead eggs. Not only does this facility supply Michigan but it also supplies Indiana, Illinois and Ohio with eggs from this facility. The steelhead industry relies on these eggs, otherwise the fishery would not exist. Steelhead start their life in streams for one year then they move (Smolt) out into the great lakes for their adult life returning to spawn in the fall. The facility by TONDU would interrupt this cycle by emitting warm water into Manistee Lake. Steelhead need coldwater to survive and the emission from the plant would be catastrophic to the steelhead fishery, not only locally but state and nation wide would feel the effects.

Michigan is one of the most polluted states in the nation. We have some of the world's largest pollution producing plants and the number one pollution plant is on our border, the St. Mary's Paper Mill in Sault Ste. Marie. Michigan does not need another large coal burning plant on our waters. The time has come for our elected officials to look to the future, their decisions are long term. I would hate to be the individual responsible for the destruction of our states natural resources, and that could be you.

Sincerely,

Patrick Kochanny
President
Pine River Area Chapter of Trout Unlimited
23297 Mackinaw Tr.
Tustin, MI 49688

COMMUNITY DEVELOPMENT
BUILDING DEPT.
DEC 23 2003
CITY OF MANISTEE

cc: Tom Kaminski, Manistee County Commissioners
Manistee City Planning Commission

COMMUNITY DEVELOPMENT
BUILDING DEPT.
DEC 2 6 2003
CITY OF MANISTEE

12/22/03

Jon Rose
Community Development Director
City of Manistee
70 Maple Street PO Box 358
Manistee, MI 49660

cc Jim Tondu

The Northern Lights Power Project will:

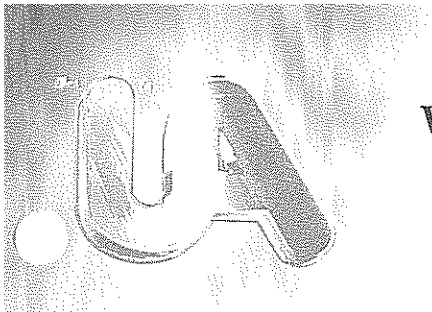
- Bring high-paying operating jobs to Manistee
- Bring high-paying construction jobs to Manistee
- Improve the Manistee tax base
- Re-Develop a brownsfield site rather than using undeveloped land
- Reduce our country's use of increasingly scarce natural gas by burning low-sulphur coal

I fully support this project.

Sincerely yours,

Douglas Busch, P.E.

1380 Ivanhoe Rd.
Ludington, MI 49431



West Michigan Plumbers, Fitters and Service Trades Local Union No. 174

of the United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada

Douglas A. Bennett
Business Manager
Financial Secretary Treasurer

December 19, 2003

COMMUNITY DEVELOPMENT
BUILDING DEPT.
DEC 2 3 2003
CITY OF MANISTEE

To: The City of Manistee Planning Commission

On November 20, 2003, I attended the public hearing on the Northern Lights Project at the Manistee Middle School Library. Although many good points were made on both sides of the issue, I think one very important point was overlooked: Do you want to live with the many advantages of electricity, or do you want to try to live without it? I listened to many people who opposed the construction of the plant citing air pollution concerns. I was surprised when I stepped outside to cool off (it was at least 85 degrees in the library) that I didn't see horses and buggies parked along the streets. No, I think those who gave their speech about clean air then jumped into their gas guzzling SUV's and drove to their warm homes, turned on their lights and watched TV.

As an avid hunter and fisherman I consider myself an environmentalist and would love nothing more than to restore the purity of our air and water to the pristine levels of 200 years ago. But, if the trade off is living without electricity, I'll take the power. Plug me in! And plug in the 99% of Americans who feel the same. We've had so many generations grow up with all the advantages of electricity that our very existence would be threatened without it. That being said, the next question is how to provide it. The power industry likes nuclear, the public does not. The concerns about radiation leaks and the problems of radioactive waste outweigh the advantages in the public's eye. The natural gas peaker plants that have been built recently are environmentally friendly but have proven to be too expensive to run and have pushed the price of natural gas up to more than double what it was a few years ago. As pointed out in the information passed out at the public hearing, it would take 2,000 wind turbines and 10,000 acres of land to equal the amount of electricity produced by the Northern Lights Project. That's fine if you're a western state and can stick them out in the desert where no one can see them. To have the entire Lake Michigan shoreline covered with these things would be unappealing visually and would turn away a lot more tourists than one building and one smokestack. Another problem would be that the peak load times are in the summer when it is hot and often times the wind not blowing is the reason it is so hot.

Presently coal is the fuel of choice for power and will most likely stay that way for the foreseeable future. "Coal Burners" are generally located as near as possible to a deep-water port as coal is delivered by boat. There are few deep-water ports in West Michigan and like Manistee they already have coal burners. Muskegon, Grand Haven, Port Sheldon Township and Holland all have them and plans for additional units in Muskegon and Port Sheldon are proposed for construction over the next ten years. Coal burning power plants are going to be built in West Michigan in the near future, this is reality.

1008 O'Malley Drive, Coopersville, MI 49404
phone: 616.837.0222 / fax: 616.837.1222

The air pollution requirements are going to be regulated by the Federal government. This is also reality and President Bush has relaxed the standards twice since taking office. Although there is local control over whether a power plant is built in your city or not, you have no more control over the quality of the air you breathe than you have over which direction the wind blows. Because the prevailing winds blow from the west, most of the time the people in West Michigan are breathing the air from Chicago and Wisconsin and people in Detroit and Canada are breathing our pollution. Air pollution is not only a national, but a global problem and environmental efforts must be directed at least to the Federal level so emissions may be controlled in all power plants in the United States and hopefully, the world.

Moving the proposed power plant 50 or 100 miles in one direction or another will not effect the air quality of Manistee residents much, but will have tremendous social and economic effects for a generation. With the government allowing manufacturing jobs to be exported to third world countries as fast as they can tear down the plants and rebuild them overseas, it makes one wonder about the available opportunities for our children and grandchildren.

I have to agree with the gentleman at the hearing who stated, "Without good paying jobs available in Manistee your children are going to move away in search of a decent job." Tourism is great for any city and Manistee has a lot to offer, but tourism provides only low paying jobs.

A power plant that provides good paying jobs with benefits (and is not going to move to China for cheap labor) is a sound investment for the economic future of residents of Manistee who cannot rely on a few months of tourism for a living. I would urge the Planning Commission to vote for the economic interests of the Manistee and surrounding area residents and we can all join together and fight the air quality issue at the Federal level.

Sincerely,

Kirk Stevenson
Assistant Business Manager
West Michigan Plumbers, Fitters & Service Trades Local Union No. 174

KWS/td

Chippewa Ottawa Resource Authority

179 W. Three Mile Road
Sault Ste. Marie, MI 49783
Ph: 906-632-0043
Fax: 906-632-1141

December 29, 2003

COMMUNITY DEVELOPMENT
BUILDING DEPT.
JAN 2 2003
CITY OF MANISTEE

Mr. John Rose - Staff Liaison
Manistee City Planning Commission
P.O. Box 358
Manistee, MI 49660

Re: Proposal for Power Plant Construction.

Dear Mr. Rose:

On behalf of the Chippewa Ottawa Resource Authority (CORA), I am writing to express our concern over the proposal by the Manistee Salt Works Corporation (MSWC) to construct a 425 megawatt coal-fired power plant on Manistee Lake. Our concerns are not only regarding the health and natural resources of the Little River Band of Ottawa Indians but also for the Great Lakes and inland ecosystems upon which all of our people depend in Northern Michigan.

CORA represents five tribes in Michigan with regard to the tribes' commercial and subsistence fisheries in the 1836 treaty-ceded waters of Lakes Huron, Michigan and Superior. The tribes which are party to the 1836 Treaty are the Bay Mills Indian Community, Grand Traverse Band of Ottawa and Chippewa Indians, Little River Band of Ottawa Indians, Little Traverse Bay Bands of Odawa Indians and Sault Ste. Marie Tribe of Chippewa Indians.

In particular, CORA has the following concerns related to construction and operation of such a large coal fired power plant on Manistee Lake:

- EPA and other entities studying air deposition of pollutants, indicate that the majority of mercury emissions in the United States result from the combustion of fossil fuels and especially coal for electricity generation. CORA is particularly concerned about increased mercury deposition in the 1836 treaty area. Although levels of mercury found in our fish currently harvested from the Great Lakes, including Lake Michigan, have not approached FDA action levels, a nationwide and worldwide increase in the number of coal fired power plants is currently taking place which would suggest that mercury levels will be increasing. Fish advisories due to mercury are already negatively impacting fish

sales and lead to a public perception that all Great Lakes fish have high mercury levels. MSWC and Tondu Corporation have stated that they intend to include the latest technology to reduce pollutants emitted from the stacks however, we are not aware of any technology currently available that can remove mercury from coal combustion. For your information, even small amounts of mercury can completely contaminate a lake and the fish in it.

- There will be many pounds of nitrogen oxides and sulfur dioxides emitted every day by the proposed plant should it be constructed. These chemicals combine with the atmosphere and precipitation to form acid rain. The devastation caused by acid rain in other parts of the country and the world is well known and well documented. So far, the 1836 treaty area resources have been spared this destruction however, there is no doubt that operation of such a large plant will have a negative impact on our shared inland resources. Many of our tribal members fish for subsistence in inland lakes which are particularly vulnerable to destruction from acid rain. Many tribal members collect medicines, plants for cultural purposes and game from Northern Michigan forests which are also vulnerable to destruction by acid rain.

- There will be large amounts of particulates and other combustive wastes released every day by the power plant despite the best available technologies that can be implemented. These wastes will combine in the atmosphere to produce ozone and smog in our region. Currently, our tribal members and larger community enjoy relatively clean air and few if any smog alerts although ozone damage to plant resources in the treaty area has been documented. It is probably true that by constructing the proposed power plants with taller smoke stacks, it will be possible to avoid most of this pollution in your immediate community, however, it is not possible to build smoke stacks tall enough to avoid smog and pollution in the 1836 treaty area. As a result, it is likely that the health of our tribal members will be put at risk, our children and elderly will be forced to stay indoors on smog alert days and respiratory diseases such as asthma will increase.

- Operation of such a large coal fired power plant will require massive amounts of water. We are concerned that, should a pipeline be constructed to take water from Lake Michigan, this will have a negative impact on the Lake Michigan fishery which is utilized by CORA tribal fishers. Information that I have seen indicates that millions of gallons per day would be required to operate such a large power plant. A pipeline taking that much water from Lake Michigan will no doubt be entraining and destroying large numbers of whitefish fry and other fish species. In addition, there are very important concerns regarding the discharge water which is proposed to be discharged into Lake Manistee. This water, which will be warmer than the ambient lake temperature will further disrupt and degrade the fishery of Lake Manistee and the Manistee River further damaging the recreational fishery of the community at large and the subsistence fishery of the Little River Band of Ottawa Indians.

In closing, it is our sincere wish, that you will give serious consideration to rejecting the proposal for a coal fired power plant and commit instead, to an alternative energy generation which is less harmful to people's health and the environment. If you have any questions or comments, please do not hesitate to contact me or Jane TenEyck at (906) 632-0043 or via email mripley@sault.com .

Sincerely,

Mike Ripley

Mike Ripley
Environmental Coordinator
Inter-Tribal Fisheries and Assessment Program
Chippewa Ottawa Resource Authority

cc: Jane TenEyck, Interim Director, CORA
CORA Board
Stephanie Ogren, Little River Band of Ottawa Indians
Jennifer Manville, Tribal Liaison, USEPA
Steve Chester, Director, MDEQ
Patricia Spitzley, Tribal Liaison, MDEQ
John Bial, MDEQ

12-04-03

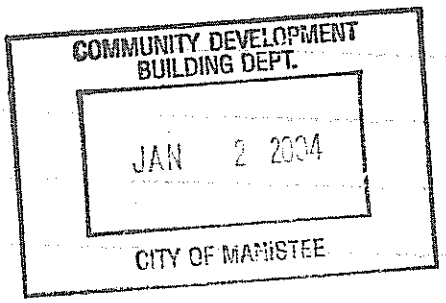
To Whom it may Concern:

I have lived in Manistee, Michigan my entire life of 44 years. I have seen this town of much industry die to just a couple of plants left and alot of unemployed people. When I heard a possible power plant might be built here I was very happy because it would employ approx 400 construction Union Jobs and appr. 100 permanant jobs when Completed. Excellent! for our town. Please Consider this Letter and Vote this Project in. Our Town of Manistee, MI

Greatly needs jobs.
This plant is a very
clean burning system
and would greatly
be a prize Industry
to our dying Community.
Thank-you for your time

Sincerely
Richard L Anderson
Iron Worker Local 3

COMMUNITY DEVELOPMENT
BUILDING DEPT.
JAN 2 2004
CITY OF MANISTEE



Manistee Planing Commission and
Concerned Citizens of Manistee County

I am a life long resident of Manistee County, and would like to express my Opinion reguarding the Northern lights power plant. I am in full support of the proposed project.

I have sat back for 40+ years and watched Manistee's industial base wane. Several times. Many of Industries that were here failed. We now have a great Opportunity to regain some of our past please donot let this Opportunity slip through our hands. Manistee's young Citizens need a place to work. Our Son's and Daughters have had to leave this area, to find work. A project of this magnitude will bring Opportunity's with many Silver linings.

The doomsdayers and Special interests should have their Say. but please let Common Sence reign. The last thing I would want to see in my lifetime is to be out in lake michigan on a warm Summer evening watching large windmills up an down our Coastline

Sincerely
Robin Kwiatkowski

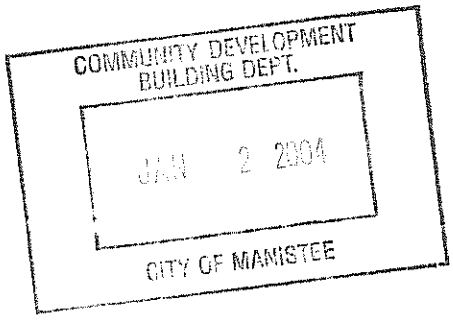
AARON K VANKAMPEN UNION IRONWORKER LOCAL 340
2390 N Larson Rd
Fountain, MI 49410

December 3, 2003

To Whom It May Concern,

I am writing you this letter to inform you how important the power plant that will start construction this spring in Manistee. It is going to provide hundreds of union people with work for at least one-two years, when some men have been out of work for months, if not a whole year. Not to mention the jobs it will provide once the plant is built. Mason & Manistee Counties in the last year have suffered immensely with the lost of factories and plants that have shut down. For example Ambar Chemical, General Chemical, Harbison Walker, Straight Steel, & a major lay off at Dow Chemical. That has hurt many families and made unemployment only greater. I believe this power plant is a win win for everyone. It will generate more tax money, provide jobs ,and is a highly regulated environmental friendly plan for Manistee's community.

Sincerely,
Aaron VanKampen
Aaron VanKampen
Wendy VanKampen
Wendy VanKampen
Abigail VanKampen
Abby
Caleb VanKampen
Caleb



IRONWORKERS LOCAL 340

STRUCTURAL-REINFORCING-RIGGING-FINISH WORK
Brett (Whitey) Hamilton, Northern Business Agent
Office-Fax 231-362-3387 Cell-231-342-3358

I would like to say that I hear a lot of talk about the contamination from the Northern Lights project. I would like to know about the contamination that is being caused from the brine and coal that are still being washed down in to the lake from the old salt factory. And some of the buildings look like they need to be torn down before they fall down. It is nothing but an eye sore.

The Northern lights project will follow the most rigid regulations that are set by state and federal government. It was stated they are willing to go a step further by not just meeting the requirements that are set by state and federal governments, but will try to go well past the legal requirements as they clearly stated at the last public meeting that I went to at the Manistee High School on Oct. 9, 2003.

Then there is talk about using wind mills for energy. If you take a ride through the desert out in California you will see hundreds of windmills. I stopped and got out of the car and found that they were very noisy. The ground was vibrating and there were dead bird parts lying around, they kill hundreds of birds. I thought it was the nastiest thing I ever saw. And you can put all of them together and you still will not produce enough energy that a power plant like the Northern Light project can produce. How many of you want one or a hundred of them in your back yard?

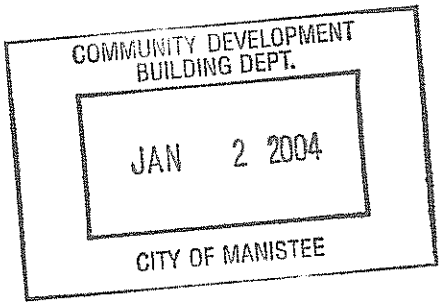
I would like you to know that Michigan is the slowest growing state in the nation. I attended a conference where Lou Glazer, the president of Michigan Future Inc., stated that the cause of this is that the industry is moving out and taking the young people with them. These young people make up the work force that keep this state running. With out new industry and a work force to bring in new revenue to take care of the state funded programs like Medicare for senior citizens or education, who do you think is going to pick up the slack! We are the ones that are going to pick up the slack. This means more taxes, I think we are taxed enough.

The Northern Lights project is not the whole answer but it is a good start to bringing a stable economy to this state and this community.

Thank you;

Brett Hamilton

Brett Hamilton
Business Agent



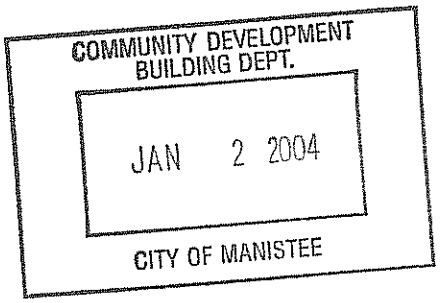
Honorable Committee Members

I am writing you concerning the "Northern Light Plant Project" proposed for Manistee. After recently reading an overview of the project, I strongly urge the committee to back this proposal. The economic value to the community cannot be ignored. The two million plus man hours required to complete the project would be generating over 100 million dollars in wages. This would be a huge shot in the arm for Manistee and the surrounding areas. Jobs would be created, 60 of which would be permanent position at the plant. On a longer term note, a source for lower cost energy would be available. The plant would be designed with safer controls allowing only "steam" to emit into the air. The tax revenue, even with a break, can only be a good thing. These are only a few of the facts that prompted my writing this letter.

Manistee needs jobs for their community in their community and this project would be just that. Not just in the construction but permanent jobs in the operation of the plant. We also need to diversify our power sources and this would cover that too and be community friendly. Please take a moment to consider all the points on this proposal; I am certain that you will see this plant would be good for EVERYONE.

Respectfully Submitted

Timothy D. Colyer



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Respectfully Submitted

Judy Colyer

I do not understand the hold up of a power plant, in this area.

It would boost the economy.

It would allow the cleanup of a bromine facility, an a salt plant.

Plus with the future closing of palasades nuclear elec. plant we will need the power supply.

James K Andrews
3797 W. Colburn Rd.
Ludington Mi. 49431

COMMUNITY DEVELOPMENT
BUILDING DEPT.
JAN 2 2004
CITY OF MANISTEE

Items forwarded to the City of Manistee Planning Commission at the Planning Commission Meeting of January 8, 2004 relating to the Manistee Saltworks Development Corporation

Memo from Mitch Deisch to the Jon Rose RE: Dr. Gunderson's questions/concerns

Correspondence:

Letter from Robert Malhiot, Director, Portage Lake Environmental Association
E-mail from Charles Patten
Letter from Bill & Katy Ramsey, 294 Hughes Street (Same letter sent individually to each Planning Commission Member and Jon Rose - Chairman Yoder's Letter will be copied for the record) and attachment Mercury Falling.
Letter from Harless Feagins with attachment
Letter from Tim Joseph, Manistee County Democratic Party

MEMO TO: Jon Rose, Community Development Director

FROM: Mitch Deisch, City Manager MD City of Manistee

DATE: January 5, 2004

SUBJECT: Dr. Paul Gunderson questions/concerns regarding Northern Lights Project bridge openings.

City Manager's Office

Jon, yesterday I spoke to Dr. Paul Gunderson, 511 Browning Avenue about the Northern Lights Project, specifically about the height of the proposed smoke stack and the number of bridge openings.

Dr. Gunderson expressed a concern that often as a Pediatric Doctor, he often needs to get to the Westshore Community Hospital from his home residence very quickly. This is often difficult due to the number of bridge openings. Dr. Stephanie Fitzgerald, 400 Block of Maple St. is also in the same position regarding the need to get to the hospital.

The increase in the number of freighters, will increase this potential conflict.

Dr. Gunderson asked that this information be passed along to the Planning Commission.

COMMUNITY DEVELOPMENT
BUILDING DEPT.
JAN 5 2004
CITY OF MANISTEE

Manistee City Planning Commission

Dear Members,

The Portage Lake Environmental Association is an organization whose purpose is to promote sound environmental programs for the conservation, protection and preservation of Portage Lake and its environs from environmental degradation and impairment, and to stimulate the public interest in environmental matters.

We are against the proposed new Manistee coal burning power plant.

The harm from particulants released into the air and the mercury released into the water from the plant, with their impact on local farming, on the fishing business, on tourist boating and recreational activities vastly outweighs the minimal job creation of this proposed power plant.

We urge the Manistee Planning Commission to reject this proposal.

Thank you for your consideration.

Robert Malhiot

Robert Malhiot, Director
Portage Lake Environmental Association
P. O. Box 67
Onekama, MI 49675

COMMUNITY DEVELOPMENT
BUILDING DEPT.
JAN 5 2004
CITY OF MANISTEE

C.C. City Council

Mitch Deisch

From: Charles Patten [cbpbgp1949@jackpine.com]
Sent: Thursday, December 11, 2003 2:31 PM
To: Jon Rose
Cc: speedo@chartermi.net; Mitch Deisch; kathyf@bignetnorth.net; C. Fuller; alupnorth@webtv.net
Subject: Manistee's future

It would be prudent at this crossroads in time for Manistee to engage an independent professional economic planner to assess Manistee's current and future structure. Environmental and potential health affects aside from a coal fired electric generating plant, future economic development and property values must be a part of the equation. If Manufacturing, assembly, or high-tech companies are to consider Manistee, the area first has to be deemed a desirable place to live.
With the natural resources and innate aesthetics' prevalent in the area, future direction toward that end should be maintained. Responses offered by Tondu regarding the economic growth, property values, and tourism are neither qualified, quantified, nor objective for the city and it's residents. The lobbying by special interest person's and group's in favor seemingly have effectively convinced the city that the proposed coal fired electric generating plant is good for the community.
That being said, this is not meant as a vote of no confidence in the planning commission, or the economic development manager of the city. Contrary to remarks made by the city manager in his guest editorial, my perspective was the citizen's who commented were very polite and concerned. The concerned voices heard were looking for assurances on the data the planning commission had in front of them, and questioned conflict of interest between some of the commission members and the proposed plant. I may add that the chair of commission started the meeting with a rather condescending remark about attendance at the meeting.
Drawing comparisons to the proposed plant and previous conflicts over the development of the prison, harbor village, and the casino are not justifiable. These entities have had no negative effect on the environment or aesthetics to the area. To characterize or insinuate that once built the plant will be just another entity as the prison, harbor village or the casino, is a comparison that cannot be made.
The planning commission has a difficult task at hand, and should be commended for their efforts. If they were to have clear vision for the path Manistee should follow for the future, the decision making process would be much easier.
Thanks for your time
Chuck Patten

January 5, 2004

Bill and Katy Ramsey
294 Hughes St.
Manistee, Mi 49660
231.723.6986
cmuktx@yahoo.com
bramsey_cmu@yahoo.com

COMMUNITY DEVELOPMENT
BUILDING DEPT.
JAN 7 2004
CITY OF MANISTEE

Dear Roger Yoder,

This is a letter to inform you and your committee of our concern over the possible permit granting Tondu Corporation the power to build the Northern Lights Coal Burning Power Plant in a city we all have made our home.

As a science major, geography minor, and social studies teacher, I understand the importance of diversifying an economy, tax revenues and the positive impact the money can have on the city, and, most importantly, the job opportunities an industrial plant can provide to our community. However, I also have studied the impact coal, and other fossil fuels, have had and continue to have on our global community.

Coal, no matter the grade, when mined, burned, and transported, pollutes the environment. Pollutants are emitted regardless of the scrubbers or 'cleanliness' of the coal. According to the Environmental Protection Agency and the Environmental Working Group, coal-burning power plants are the single largest source of mercury pollution. The recent publication studying the effects of mercury pollution by coal-burning power plants, "Mercury Falling," states,

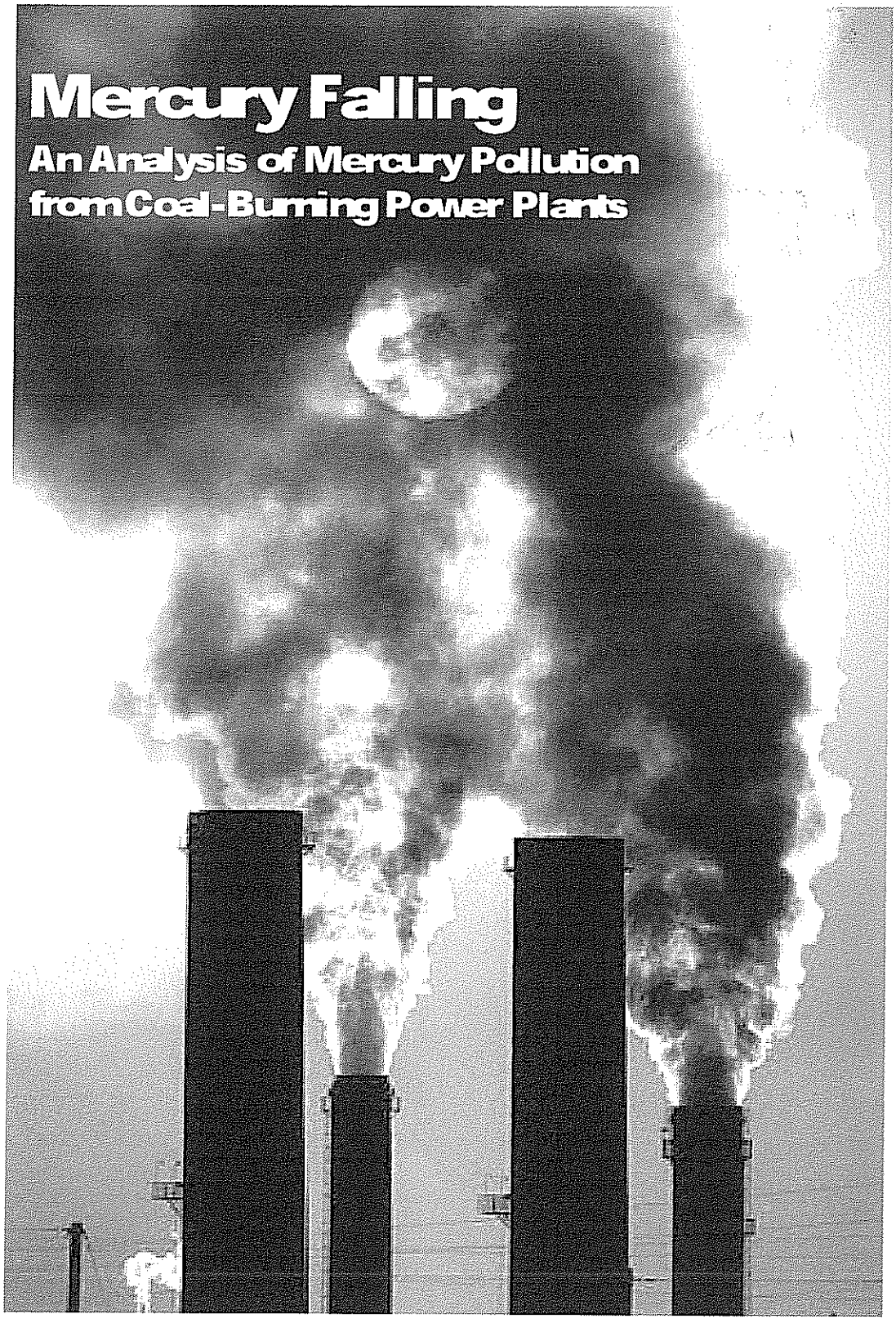
> "Mercury is an extremely volatile metal that can be transported great distances after it is spewed into the atmosphere. Once it reaches an aquatic environment, mercury is transformed into methylmercury, a potent neurotoxin, which accumulates in top predator fish and the people and wildlife who eat them. When ingested by pregnant women, methylmercury readily crosses the placenta and targets the developing fetal brain and central nervous system. *Even relatively tiny amounts can produce serious developmental delays in walking, talking, hearing and writing.*"

No one, on either side of this issue, can argue mercury is dangerous and poses serious, long-term health risks. Even if our country and city imposed the strictest standards on eliminating the pollutants produced by coal-burning power plants, there would still be contaminants, such as mercury and sulfur, entering our air, lakes, and groundwater. The risks are great.

As a body of politic, representative of our community, please listen to the voices. Your decision will affect the lives of many and may not be popular with some. Please look at the research, make your list of pros and cons. In the end you will see that while a new industrial corporation can add jobs, money, and cleanup an old mess, it has the potential to add to the destruction of the environment, puts our fisheries in danger, it will take away from the tourism industry with its monstrous tower, and, most importantly, it will put the lives of current and future generations at risk of serious developmental disorders.

Mercury Falling

An Analysis of Mercury Pollution from Coal-Burning Power Plants



NRDC Natural Resources Defense Council

Environmental Working Group™

CleanAir Network

Acknowledgments

Mercury Falling was written by John Coequyt and Richard Wiles of the Environmental Working Group, Felice Stadler of the Clean Air Network, and David Hawkins of the Natural Resources Defense Council (NRDC). Chris Campbell assisted with the data analysis in *Mercury Falling*. The authors would like to thank the following people for their assistance, without which the report would not have been possible: Andy Buchsbaum, Julie Metty and Michael Murray (National Wildlife Foundation, Great Lakes Office), Martha Keating and Margaret Round (Clean Air Task Force), and Patricio Silva (NRDC). We would also like to thank the staff at the Environmental Protection Agency, the Department of Energy, and the Reasearch Triangle Institute hotline for their help with the data requirements of this report; Molly Evans for design and layout; and NWF's Clean the Rain campaign for their assistance in releasing this report.

Mercury Falling was made possible by grants to Environmental Working Group from The Beldon Fund, the W. Alton Jones Foundation, the Joyce Foundation, and The Turner Foundation; grants to the Clean Air Network from The George Gund Foundation, The John Merck Fund, The Pew Charitable Trusts, The Turner Foundation, and many individual and organizational supporters; and grants to NRDC from The John Merck Fund and The Joyce Foundation and the generous support of NRDC's members. The opinions expressed in this report are those of the authors and do not necessarily reflect the views of The Pew Charitable Trusts or the other supporters listed above. Environmental Working Group is responsible for any errors of fact or interpretation contained in this report.

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Environmental Working Group

The Environmental Working Group (EWG) is a nonprofit environmental research organization based in Washington, D.C. Through analysis of government and private sector databases, environmental monitoring programs, and scientifically grounded research, EWG develops high-profile publications, computer databases and Internet resources that consistently create public awareness and concern about high priority environmental problems and solutions.

Clean Air Network

The Clean Air Network (CAN), a project of the Natural Resources Defense Council, is a broad alliance of over 600 local, state and national groups working to secure a legacy of clean air for present and future generations. CAN empowers and mobilizes organizations by setting a national clean air agenda and providing the resources, tools and support necessary for action.

Natural Resources Defense Council

NRDC is a nonprofit environmental membership organization with 400,000 members and contributors nationwide. Since 1970 NRDC's scientists, lawyers, and staff have been working to protect the world's natural resources and to improve the quality of the human environment. NRDC has offices in New York, Washington, DC, San Francisco and Los Angeles.

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Washington, D.C. 20009
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(202) 232-2592 (fax)

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Executive Summary

Scientists and government officials, including a blue ribbon panel of the National Academy of Sciences, are growing increasingly concerned about the health threat that mercury contamination of commonly eaten fish may pose to the delicate, rapidly developing nervous systems of fetuses, infants and young children. A high percentage of commercial fish, such as tuna and pollock, are now contaminated with traces of mercury. Concern over mercury contamination in 40 states has led government agencies to warn consumers not to eat bass, trout and other sport fish caught in over a thousand lakes and streams. According to the International Chemical Safety Program of the United Nations, the organic form of mercury, methylmercury, is one of the six most serious pollution threats to the planet. Some scientists liken the evolving evidence that dietary exposure to mercury from fish may cause damage to vision, coordination, and other nervous system functions, to the belated scientific and regulatory recognition of childhood lead poisoning.

Coal-burning power plants are the single largest source of mercury pollution, and the only major source the government does not regulate. This study presents the first comprehensive assessment of mercury pollution from coal-burning power plants and the first published estimates of mercury pollution by individual coal-burning electric facilities across the United States. The study is based on a six-month analysis by the Environmental Working Group of recently released government records on the mercury content of coal burned in more than 1,200 power plant boilers nationwide in 1999. Power companies were required to collect the coal data for one year as a result of a lawsuit brought by the Natural Resources Defense Council.

Findings

The analysis found that an estimated 98,000 pounds (49 tons) of mercury are emitted directly to the air by hundreds of coal-burning power plants in the U.S. each year, confirming the most recent government mercury pollution estimates. The study also found that an almost equal

Concern over mercury contamination has led government agencies to warn consumers not to eat bass, trout and other sport fish caught in over a thousand lakes and streams across 40 U.S. states.

Coal-burning power plants are the single largest source of mercury pollution, and the only major source the government does not regulate.

98,000 pounds of mercury are emitted to the air by coal-burning power plants in the U.S. each year.

amount of mercury—an estimated 81,000 pounds (40 tons)—ends up in power plant waste when air pollution controls designed for sulfur and other pollutants strip a portion of the mercury from utility stack gases. Additional mercury pollution, estimated at 20,000 pounds (10 tons) occurs during the cleaning of coal prior to burning at power plants.

The study also found that:

- Fifty power plants polluted the air with over 500 pounds of mercury each in 1998, and the top six plants each emitted over 1,300 pounds of mercury to the air. The top three plants for mercury air pollution were the Keystone plant (in Shelocta, PA, with 1,911 pounds of mercury emissions), the Homer City plant (in Homer City, PA, with 1,633 pounds of mercury emissions), and the Monticello plant (in Mount Pleasant, TX, emitting 1,396 pounds of mercury). The Keystone plant also led the nation in total mercury releases (with 3,000 pounds of mercury released in 1998).

- Coal-burning power plants in three states, Pennsylvania, Texas, and Ohio, released a total of nearly 53,000 pounds (26.5 tons) of mercury into the environment in 1998. Plants in these states account for more than 29 percent of all mercury pollution from power plants (stack emis-

Table 1. Half of all mercury pollution from power plants comes from eight states: Pennsylvania, Texas, Ohio, Illinois, Indiana, Alabama, West Virginia and Kentucky.

Rank	State	Estimated Power Plant Mercury Released In Waste* 1998 (Pounds)	Estimated Power Plant Mercury Air Pollution* 1998 (Pounds)	Estimated Total Release of Mercury into the Environment* 1998 (Pounds)
1	Pennsylvania	7,778	9,967	17,745
2	Texas	10,982	9,072	20,054
3	Ohio	7,275	7,881	15,156
4	Illinois	3,338	6,252	9,590
5	Indiana	4,711	5,229	9,940
6	Alabama	2,020	4,876	6,896
7	West Virginia	4,411	4,751	9,161
8	Kentucky	3,320	3,855	7,175
9	North Carolina	1,506	2,870	4,376
10	Michigan	1,904	2,765	4,669

Source: Environmental Working Group. Compiled from EPA and DOE data.
**Estimated coal in mercury is calculated using plant-specific coal contamination and coal consumption data. Releases include disposal in ponds and landfills as well as reuse applications like fertilizer or wallboard. Total air pollution is calculated by applying total mercury to plant specific emission modification factors. See Appendix A for a more complete explanation.*

Table 2. Ten utility companies polluted the air with more than 2,000 pounds of mercury in 1998.

Rank	Company	Estimated Power Plant Mercury Released In Waste* 1998 (Pounds)	Estimated Power Plant Mercury Air Pollution* 1998 (Pounds)	Estimated Total Release of Mercury into the Environment* 1998 (Pounds)
1	Southern Company, The	3,830	7,523	11,353
2	American Electric Power Co., Inc.	6,654	6,858	13,511
3	GPU, Inc.	4,203	5,581	9,785
4	Edison International	2,188	4,324	6,512
5	Tennessee Valley Authority	3,425	4,109	7,535
6	Texas Utilities Company	5,420	3,288	8,708
7	FirstEnergy Corp	2,720	3,183	5,903
8	Dominion Resources, Inc.	2,022	2,657	4,679
9	Cinergy Corporation	2,312	2,438	4,750
10	Houston Industries Incorporated	1,894	2,235	4,130

Source: Environmental Working Group. Compiled from EPA and DOE data.
**Estimated coal in mercury is calculated using plant-specific coal contamination and coal consumption data. Releases include disposal in ponds and landfills as well as reuse applications like fertilizer. Total air pollution is calculated by applying total mercury to plant specific emission modification factors. See Appendix A for a more complete explanation. Mercury pollution is attributed to the parent company of the plant operator as of January 1, 1999. Sales have been announced for several of the large power plants, for example, GPU has sold or agreed to sell all of its coal-burning power plants.*

sions and combustion waste). Adding the next four states in rank—Illinois, Indiana, Alabama, and West Virginia—accounts for nearly half of all direct stack mercury air pollution from power plants (see Table 1).

- Six utilities, The Southern Company, American Electric Power, GPU, Edison International, Tennessee Valley Authority and Texas Utilities Company accounted for more than 30 percent of all mercury pollution from power plants in 1998. Each of these companies burned coal containing more than 6,500 pounds of mercury and each spewed more than 3,000 pounds of mercury directly into the air (Table 2).

- Every year, the estimated 81,000 pounds (40 tons) of mercury-tainted combustion waste is dumped into landfills or settling ponds, or used to make products like cement and wallboard. It is likely that a significant amount of this mercury is released into the atmosphere, adding further to the total mercury pollution caused by power plants.

- An additional 20,000 pounds (10 tons) of mercury is being released into the environment through coal cleaning, bringing the total estimated amount of mercury pollution caused by the burning of coal at power plants to over 200,000 pounds annually (over 100 tons).

Mercury never disappears in the environment, ensuring that contamination today will remain a problem long into the future.

A Highly Toxic Metal

Mercury pollution is a major worldwide environmental problem with serious immediate and long-term implications for human health. Mercury is an extremely volatile metal that can be transported great distances after it is spewed into the atmosphere. Once it reaches an aquatic environment, mercury is transformed into methylmercury, a potent neurotoxin, which accumulates in top predator fish and the people and wildlife who eat them. When ingested by pregnant women, methylmercury readily crosses the placenta and targets the developing fetal brain and central nervous system. Even relatively tiny amounts can produce serious developmental delays in walking, talking, hearing and writing. Infants can also be exposed to high levels of methylmercury during breastfeeding. EPA estimates that as many as seven million women and children are regularly eating mercury-contaminated fish above the level it considers safe (U.S. EPA 1997a). Mercury never disappears in the environment, ensuring that contamination today will remain a problem long into the future.

Coal-burning power plants pollute with impunity thanks to special treatment from politicians and bureaucrats.

Current Policy Favors Polluters

Coal-burning power plants pollute with impunity thanks to special treatment from politicians and bureaucrats. In 1990, under pressure from utilities, Congress prohibited the EPA from regulating mercury or any other toxic air pollutants emitted by utilities until the agency completed a report to Congress that characterized the threat to human health and the environment that power plant emissions might pose. In 1998, after EPA completed the required report, Congress extended the prohibition until after additional studies were completed by the National Academy of Sciences. No other known source of mercury has been given these special exemptions. At the same time, EPA is poised to exempt coal combustion waste from regulation as hazardous waste, ensuring that more than 100 million tons of mercury-laden toxic waste each year will be dumped into the environment with virtual immunity from all federal health and safety rules (U.S. EPA 1999a).

Fixing the Problem

EPA must use the authority it already possesses and act without delay to sharply limit the amount of mercury utilities can dump into the environment. As long as utilities enjoy immunity from public health and pollution control responsibilities, they will continue to pollute the environment, threaten fish and food supplies and the health of millions of children each year.

1. EPA should impose stringent mercury emission limits on coal-fired power plants, relying in the near term on stack gas controls and encouragement of fuel switching and efficiency, and in the long term on reduc-

ing reliance on coal through increased efficiency and use of clean energy sources. By reducing utilities' current heavy reliance on coal we can lower total loadings of mercury into the environment through air emissions, mercury-laden combustion wastes, and coal washing.

2. EPA must regulate coal combustion waste as hazardous waste to ensure that it is managed to minimize—and eliminate—further mercury releases to the environment. This action should be taken in conjunction with limits on stack emissions of mercury to achieve effective limits on total mercury releases to the environment from coal combustion.

3. EPA should investigate the role of economic incentives *other than* pollution trading, such as consumer information and emissions charges, as part of a national mercury reduction strategy for utilities. Trading mercury, as opposed to requiring each contributing source to progressively curb emissions, is inappropriate for such an extremely toxic pollutant that poses a major risk to human health and wildlife. A trading policy for mercury also runs counter to the goals of the Great Lakes Water Quality Agreement (signed by the U.S. and Canada) and the goals outlined in EPA's Clean Water Action Plan and EPA's draft persistent bioaccumulative toxics strategy.

4. Congress should enact legislation setting protective caps on emissions of mercury and other coal-combustion pollutants from electric generators. The Congress and EPA must also aggressively promote renewable energy and energy efficiency to minimize total mercury releases into the environment.

As long as utilities enjoy immunity from public health and pollution control responsibilities, they will continue to pollute the environment, threaten fish and food supplies and the health of millions of children each year.

Chapter 1

Introduction

During 1999, all coal-burning electric power plants are required for the first time to measure and report the mercury content of the coal they burn. EPA required these reports as part of a settlement agreement between EPA and the Natural Resources Defense Council (NRDC) in April 1998. NRDC had sued the agency for failing to finalize its report to Congress on utilities' toxic air pollution, and for failing to make a determination on whether to regulate utilities for toxic air emissions. When EPA finally completed its report in February 1998, the agency concluded that it needed more information before it could decide whether to issue national mercury emissions standards for power plants.

In order to force EPA to address this data gap, NRDC negotiated an agreement with the government. The agency's deadline for making a regulatory determination was extended until December 2000, contingent upon EPA using its authority under Section 114 of the Clean Air Act to issue a mercury right-to-know survey (mercury-RTK) requiring coal-burning electric power companies to run stack tests for mercury and to sample the mercury content of the coal they burn. The agency also agreed to complete a study on the potential for mercury reductions through controls on nitrogen oxides, sulfur dioxide, and carbon dioxide and to issue a more sensitive water test method for mercury. The mercury-RTK was issued in November 1998. The multi-pollutant benefit study was completed in March 1999, and the water test method was finalized in May 1999.

The purpose of the mercury-RTK is to collect enough information to improve estimates of the amount of mercury being emitted by coal-fired power plants. The form and amount of mercury emitted depends on a number of factors, including the amount of mercury in the coal, the type of boiler, and the type of stack controls installed on the boiler. To ensure that mercury emission estimates take these variables into account at each boiler, EPA issued a three-part mercury-RTK survey. Part one contains complete profiles of 2,145 generating units (boilers) in the U.S. Out of the 2,145 boilers included in part one, about 1,000 are not subject to the mercury-RTK either be-

cause coal was not a primary or secondary fuel, because they fell below the generating capacity threshold, or because they are not currently operating.

Part two, which is the primary focus of this report, requires plant owners or operators to determine the mercury content of the coal burned in each of 1,200 boilers. Power plants must report this information to EPA on a quarterly basis for one year. The frequency of the sampling within each quarter depends on how much the concentration of mercury varies from one shipment to the next and the number of shipments.

Part three requires 75 power plants to conduct a one-time mercury stack test on certain boilers. EPA selected the plants by first categorizing all 1,200 coal-fired boilers (from part two) by the type of coal burned and type of stack controls used. In all, EPA developed 12 different categories. EPA then chose a certain percentage of boilers within each category. The boiler flue gas will be tested for mercury both before and after the flue gas passes through air pollution control equipment. The test method will also allow operators to analyze the type of mercury being emitted at various stages in the flue gas to determine whether some stack controls are more effective than others in capturing two forms of mercury commonly found in combustion gases—elemental or ionic.

EPA intends to have all the mercury-RTK data collected by summer 2000, and analyzed before December 2000 when the agency is required to decide whether to regulate mercury emissions from electric utilities.

Chapter 2

Estimating Mercury Pollution at Power Plants

This report calculates mercury release estimates on an individual boiler basis by combining information from parts one and two of the mercury-RTK described above. Part one of EPA's mercury-RTK contains the most complete publicly available profile to date on the air pollution controls being used at coal-fired electric utility boilers throughout the United States.

Using very limited test data, EPA estimates that several existing types of stack controls for particulate matter, sulfur dioxide, and nitrogen oxide emissions can reduce mercury emissions anywhere from zero to 44 percent. EPA assumes that multiple pollution control devices installed on individual boilers will have an additive effect in reducing overall mercury stack emissions. This assumption likely results in an underestimation of direct emissions of mercury from stacks, because the effectiveness of pollution control devices likely drops as upstream control devices lower the concentration of mercury in the stack gas (see Appendix A for additional information on EPA's emission factors).

Part two of the mercury-RTK contains the results of 20,782 tests for mercury in coal from the first two quarters of 1999. The concentration of mercury in those

Mercury releases through coal cleaning

Even before coal arrives at a utility boiler, significant amounts of mercury have already been removed and released into the environment. About 77 percent of Appalachian and Illinois basin coal, which represents about 50 percent of coal production, is already cleaned to remove noncombustible ash and sulfur (U.S. EPA 1998a).

By the time coal arrives at power plants, about 20,000 pounds (10 tons) of mercury have already been removed and dumped in retention ponds, where mercury could readily be emitted into the atmosphere. This figure is calculated by estimating that 77 percent of the coal shipped from the following states is cleaned: Alabama, Illinois, Indiana, Kentucky, Kansas, Maryland, Ohio, Pennsylvania, Oklahoma, Virginia, West Virginia, Missouri and Utah; and that, on average, 21 percent of the mercury is removed through conventional coal cleaning processes. The average mercury content from mined coal was used, as sampled by the U.S. Geological Survey.

Table 3. Mercury concentration in different fuel types as burned.

Fuel Type	Mercury Concentration ppm**	Samples	Maximum Concentration ppm	Minimum* Concentration ppm
Anthracite	0.16	72	0.31	0.06
Bituminous	0.11	14,514	0.97	0.00
Bituminous - High Sulfur	0.13	125	0.40	0.01
Bituminous - Low Sulfur	0.10	165	0.90	0.00
Lignite	0.11	463	0.75	0.00
Petroleum Coke	0.05	548	0.36	0.00
Subbituminous	0.07	4,449	0.38	0.00
Tires	0.06	21	0.11	0.02
Waste Anthracite	0.18	177	0.43	0.00
Waste Bituminous	0.49	248	1.18	0.04
Average/Total	0.106	20,782		

Source: Environmental Working Group, compiled from EPA data, 1999.

**Concentrations of zero indicate that mercury was not detected in the sample.*
***ppm = parts per million. Tire samples are included for comparison purposes only.*

samples is fairly consistent between coal types (see Table 3) but varies tremendously between samples (see Figure 1). All samples represent mercury in the coal after coal cleaning.

Of the 20,782 samples analyzed, only 278 (1.3 percent) were below the level of detection used by the company to analyze the sample. For the purposes of our analysis we assumed that all of the samples that did not detect mercury contained no mercury. However, it is likely that many of these samples were actually contaminated, and they failed to detect mercury only because the level of detection was set too high (25 utilities used 0.1 part per million or higher detection limits).

Mercury coal data were then combined with part one data on boiler type and pollution controls and EPA's emissions factors for mercury reduction to produce individual plant estimates of mercury stack emissions (see Appendix A for methodology).

EPA's emissions estimates corroborate the estimates presented here where the average power plant emits through its smokestack slightly more than 50 percent of the mercury in the coal burned. Much of the remaining 50 percent is being released at other points in the combustion process or through the disposal of combustion waste, the impacts of which are poorly studied (Keating 1999).

National and State Mercury Release Totals

By compiling data from parts one and two of the mercury-RTK, we estimated the total amount of mercury burned and released in the environment each year from 397 coal-fired power plants. These 397 facilities represent 93

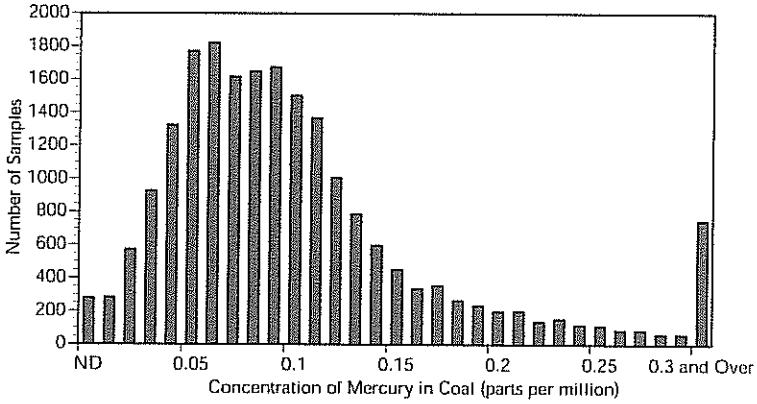
percent of coal consumption for electricity generation nationwide. Throughout our analysis, we estimated total mercury releases to the environment either in the form of direct stack emissions or solid waste (scrubber sludge, fly ash, etc.). All mercury releases are based on coal that has already been cleaned.

Our analysis shows, once again, that coal-fired power plants are the prime source of mercury contamination in the U.S. and the largest known source of mercury air pollution.

- Over 180,000 pounds (90 tons) of mercury are released into the environment each year from coal-burning power plants. An estimated 98,000 pounds (49 tons) are emitted directly to the atmosphere through the smokestack. The remaining mercury is being released into the environment in fly ash, bottom ash, boiler slag, and scrubber waste. EPA is on the verge of exempting this toxic material from federal hazardous waste laws.

- Coal-fired power plants in Pennsylvania, Texas, and Ohio dumped nearly 53,000 pounds (26.5 tons) of mercury into the environment in 1998, accounting for 29 percent of all mercury released by power plants nationwide (see Table 4).

Figure 1. First and second quarter mercury ICR sample results.



Source: Environmental Working Group, compiled from EPA data, 1999.

- Coal-burning power plants in seven states—Pennsylvania, Texas, Ohio, Illinois, Indiana, Alabama, and West Virginia—emitted through their smokestacks an estimated 48,000 pounds (24 tons) of mercury, accounting for nearly half of all power plant mercury stack emissions.

- An additional 20,000 pounds (10 tons) of mercury is being released into the environment through coal cleaning, bringing the total estimated amount of mercury pollution caused by the burning of coal at electric utilities to more than 200,000 pounds annually (over 100 tons).

Utility Totals

- In 1998, two utility companies, The Southern Company and American Electric Power

Table 4. Half of all mercury pollution from power plants comes from eight states: Pennsylvania, Texas, Ohio, Illinois, Indiana, Alabama, West Virginia and Kentucky.

Rank	State	Estimated Mercury Released In Waste* 1998 (Pounds)	Estimated Mercury Air Pollution* 1998 (Pounds)	Estimated Total Release of Mercury into the Environment* 1998 (Pounds)
1	Pennsylvania	7,778	**9,967**	17,745
2	Texas	10,982	**9,072**	20,054
3	Ohio	7,275	**7,881**	15,156
4	Illinois	3,338	**6,252**	9,590
5	Indiana	4,711	**5,229**	9,940
6	Alabama	2,020	**4,876**	6,896
7	West Virginia	4,411	**4,751**	9,161
8	Kentucky	3,320	**3,855**	7,175
9	North Carolina	1,506	**2,870**	4,376
10	Michigan	1,904	**2,765**	4,669
11	Missouri	1,565	**2,562**	4,128
12	Tennessee	2,082	**2,548**	4,630
13	Florida	2,660	**2,428**	5,088
14	Georgia	1,633	**2,239**	3,872
15	North Dakota	2,526	**2,039**	4,565
16	Wisconsin	1,019	**1,953**	2,972
17	Iowa	1,127	**1,925**	3,052
18	Maryland	994	**1,781**	2,775
19	Virginia	994	**1,376**	2,370
20	New Mexico	1,468	**1,323**	2,791
21	Wyoming	1,672	**1,269**	2,941
22	Kansas	1,355	**1,193**	2,549
23	South Carolina	1,207	**1,182**	2,390
24	Louisiana	1,105	**1,103**	2,207
25	New York	774	**1,063**	1,838
26	Arizona	666	**1,035**	1,701
27	Oklahoma	840	**1,030**	1,870
28	Arkansas	499	**939**	1,439
29	Minnesota	762	**909**	1,671
30	Nebraska	320	**825**	1,145
31	Colorado	868	**752**	1,620
32	Montana	451	**678**	1,129
33	Mississippi	469	**671**	1,139
34	Utah	1,021	**660**	1,681
35	Washington	252	**421**	673
36	Nevada	363	**417**	779
37	New Jersey	176	**411**	587
38	Massachusetts	212	**362**	574
39	Delaware	165	**309**	474
40	Oregon	114	**140**	255
41	New Hampshire	78	**135**	213
42	South Dakota	37	**63**	100
43	Alaska	10	**11**	21
	Subtotal (pounds)	76,729	**93,272**	170,001
	Subtotal (tons)	38.4	**47**	85.0
	Other Utility/Nonutility**	4,585	**5,573**	10,158
	National Total (pounds)	81,313	**98,845**	180,158
	National Total (tons)	40.7	**49.4**	90.1

Source: Environmental Working Group. Compiled from EPA and DOE data.
**Estimated mercury emissions for each plant are calculated using plant-specific coal contamination and coal consumption data. Releases include disposal in ponds and landfills as well as reuse applications like fertilizer. Total air pollution is calculated by applying total mercury to plant specific emission modification factors. See Appendix A for a more complete explanation. States not listed had no plants in part two.*
***Other includes both utility and non-utility emissions for which plant specific coal use data was not available.*

Table 5. Twenty utility companies each polluted the air with more than 1,000 pounds of mercury in 1998.

Rank	Company	Estimated Power Plant Mercury Released In Waste* 1998 (Pounds)	Estimated Power Plant Mercury Air Pollution* 1998 (Pounds)	Estimated Total Release of Mercury into the Environment* 1998 (Pounds)
1	Southern Company, The	3,830	7,523	11,353
2	American Electric Power Co., Inc.	6,654	6,858	13,511
3	GPU, Inc.	4,203	5,581	9,785
4	Edison International	2,188	4,324	6,512
5	Tennessee Valley Authority	3,425	4,109	7,535
6	Texas Utilities Company	5,420	3,288	8,708
7	FirstEnergy Corp	2,720	3,183	5,903
8	Dominion Resources, Inc.	2,022	2,657	4,679
9	Cinergy Corporation	2,312	2,438	4,750
10	Houston Industries Incorporated	1,894	2,235	4,130
11	PP&L Resources, Inc.	1,488	2,208	3,697
12	Central and South West Corp.	1,922	1,986	3,908
13	PacifiCorp	1,954	1,838	3,792
14	Allegheny Power System, Inc.	1,977	1,805	3,782
15	DTE Energy Company	1,121	1,557	2,678
16	Carolina Power & Light Co	714	1,509	2,223
17	Duke Power Company	828	1,471	2,299
18	Union Electric Co	838	1,412	2,251
19	Potomac Electric Power Co	721	1,063	1,783
20	LG&E Energy Corporation	1,315	1,042	2,357
21	DPL Inc.	595	986	1,581
22	Wisconsin Energy Corporation	678	964	1,642
23	Entergy Corporation	539	901	1,440
24	Basin Electric Power Coop	1,191	882	2,073
25	Pinnacle West Capital Corporation	991	859	1,850
26	CMS Energy Corporation	576	857	1,433
27	IPALCO Enterprises, Inc.	937	770	1,707
28	Public Service Co of NM	555	759	1,314
29	Baltimore Gas & Electric Co	295	756	1,051
30	Kansas City Power & Light Co	494	720	1,214
31	WPL Holdings Inc.	263	703	966
32	Western Resources, Inc.	897	690	1,587
33	Midwest Power Systems, Inc	421	679	1,100
34	Florida Progress Corporation	387	660	1,047
35	Southwestern Public Service Co	584	655	1,239
36	KU Energy Corporation	276	632	907
37	Montana Power Co	447	625	1,072
38	Salt River Proj Ag I & P Dist	433	608	1,042
39	Illinova Corporation	316	606	922
40	Coop Power Assn	833	586	1,419
41	Indiana-Kentucky Electric Corp	275	580	855
42	NIPSCO Industries, Inc.	516	573	1,089
43	Central Louisiana Elec Co Inc	696	567	1,263
44	South Carolina Pub Serv Authority	706	561	1,267
45	MidAmerican Energy Company	267	556	822
46	Electric Energy Inc	332	555	886
47	San Antonio City of	553	548	1,102
48	Public Service Company Of Colorado	614	541	1,155
49	Oklahoma Gas & Electric Co	385	536	921
50	Cardinal Operating Co	287	526	813

Source: Environmental Working Group. Compiled from EPA and DOE data.
**Estimated mercury emissions for each plant are calculated using plant-specific coal contamination and coal consumption data. Releases include disposal in ponds and landfills as well as reuse applications like fertilizer and wallboard. Total air pollution is calculated by applying total mercury to plant specific emission modification factors. See Appendix A for a more complete explanation. Mercury pollution is attributed to the parent company of the plant operator as of January 1, 1999. Sales have been announced for several of the large power plants, for example, GPU has sold or agreed to sell its coal-burning power plants.*

Company, each released over 6,800 pounds of mercury directly from their stacks and another 3,800 pounds of mercury in combustion wastes for a total release of over 11,300 pounds of mercury into the environment from each company (see Table 5). Together, these two companies accounted for over 14 percent of all direct and indirect (stack and combustion waste) mercury releases from the power industry.

- In 1998, the twenty largest mercury-emitting utility companies each released more than 1,000 pounds of mercury from their stacks and more than 700 pounds in combustion wastes each. Their combined mercury releases exceeded 100,000 pounds. These 20 companies accounted for over 58 percent of all mercury releases from the power industry.

Power Plant Releases

- In 1998, fifty power plants each released over 500 pounds of mercury from their stacks for a total releases of over 40,000 pounds of mercury (see Table 6). These fifty plants accounted for over 41 percent of all mercury releases from the power industry.

- In 1998, 12 power plants collectively released over 15,700 pounds of mercury from their stacks and another 13,800 pounds in combustion wastes for a total release of over 29,000 pounds of mercury. These twelve plants accounted for 16 percent of all mercury releases from the power industry.

- The Keystone power plant, the Homer City power plant in Pennsylvania, and the Monticello power plant in Texas each released 3,000 pounds of mercury into the environment in 1998 according to our estimates.

Table 6. Fifty power plants each polluted the air with over 500 pounds of mercury in 1998.

Rank	Plant Name	Company Name	State	City	Estimated Mercury Released In Waste* 1998 (Pounds)	Estimated Mercury Air Pollution* 1998 (Pounds)	Estimated Total Release of Mercury into the Environment* 1998 (Pounds)
1	Keystone	GPU, Inc.	Pennsylvania	Shelocta	1,144	1,911	3,055
2	Homer City	GPU, Inc.	Pennsylvania	Homer City	1,332	1,633	2,965
3	Monticello	Texas Utilities Company	Texas	Mount Pleasant	2,532	1,396	3,928
4	**Miller****	Southern Company, The	Alabama	Quinton	657	1,375	2,032
5	W A Parish	Houston Industries Inc.	Texas	Thompsons	602	1,326	1,928
6	**Mt. Storm Power Station****	Dominion Resources, Inc.	West Virginia	Mt. Storm	1,078	1,303	2,381
7	Montour	PP&L Resources, Inc.	Pennsylvania	Washingtonville	759	1,267	2,026
8	Martin Lake	Texas Utilities Company	Texas	Tatum	1,729	1,216	2,946
9	**Gen J. M. Gavin****	American Electric Power Co., Inc.	Ohio	Cheshire	1,998	1,141	3,140
10	Rockport	American Electric Power Co., Inc.	Indiana	Rockport	891	1,092	1,983
11	Gaston	Southern Company, The	Alabama	Wilsonville	176	1,080	1,257
12	**Conesville****	American Electric Power Co., Inc.	Ohio	Conesville	956	1,048	2,004
13	Limestone	Houston Industries Incorporated	Texas	Jewett	1,293	909	2,202
14	Shawville	GPU, Inc.	Pennsylvania	Shawville	530	906	1,436
15	Joliet 29	Edison International	Illinois	Joliet	518	865	1,383
16	Powerton	Edison International	Illinois	Pekin	487	837	1,324
17	Waukegan	Edison International	Illinois	Waukegan	284	830	1,114
18	Pirkey	Central and South West Corp.	Texas	Hallsville	1,438	821	2,260
19	Will County	Edison International	Illinois	Romeoville	318	814	1,132
20	**Gorgas****	Southern Company, The	Alabama	Parrish	324	812	1,136
21	Bruce Mansfield	FirstEnergy Corp	Pennsylvania	Shippingport	889	805	1,695
22	San Juan	Public Service Co of NM	New Mexico	Waterflow	555	759	1,314
23	**John E Amos****	American Electric Power Co., Inc.	West Virginia	St. Albans	609	747	1,357
24	Monroe Power Plant	DTE Energy Company	Michigan	Monroe	591	725	1,316
25	**Scherer****	Southern Company, The	Georgia	Macon	580	711	1,290
26	**Paradise Fossil Plant****	Tennessee Valley Authority	Kentucky	Drakesboro	688	700	1,388
27	Roxboro	Carolina Power & Light Co	North Carolina	Semora	359	700	1,059
28	Crystal River	Florida Progress Corporation	Florida	Crystal River	387	660	1,047
29	Conemaugh	GPU, Inc.	Pennsylvania	New Florence	939	660	1,599
30	Eastlake	FirstEnergy Corp	Ohio	Eastlake	458	647	1,105
31	J. M. Stuart	DPL Inc.	Ohio	Manchester	522	640	1,161
32	Gibson Generating Station	Cinergy Corporation	Indiana	Owensville	723	629	1,351
33	**W. H. Sammis****	FirstEnergy Corp	Ohio	Stratton	518	614	1,132
34	Colstrip	Montana Power Co	Montana	Rosebud City	439	613	1,051
35	**Bowen****	Southern Company, The	Georgia	Cartersville	361	603	964
36	Labadie	Union Electric Co	Missouri	Labadie	353	589	942
37	Coal Creek	Coop Power Assn	North Dakota	Underwood	833	586	1,419
38	Jeffrey Energy Center	Western Resources, Inc.	Kansas	St. Marys	826	581	1,406
39	Clifty Creek	Indiana-Kentucky Electric Corp	Indiana	Madison	275	580	855
40	Petersburg	IPALCO Enterprises, Inc.	Indiana	Petersburg	803	565	1,368
41	Joppa Steam	Electric Energy Inc	Illinois	Joppa	332	555	886
42	**Philip Sporn****	American Electric Power Co., Inc.	West Virginia	New Haven	457	536	993
43	Brunner Island	PP&L Resources, Inc.	Pennsylvania	York Haven	355	533	887
44	Four Corners	Pinnacle West Capital Corporation	New Mexico	Fruitland	841	528	1,369
45	**Cardinal****	Cardinal Operating Co	Ohio	Brilliant	287	526	813
46	Kingston Fossil Plant	Tennessee Valley Authority	Tennessee	Harriman	315	526	841
47	Milton R. Young	Minnkota Power Coop Inc	North Dakota	Center	461	510	971
48	Pleasant Prairie	Wisconsin Energy Corporation	Wisconsin	Kenosha	414	508	922
49	Johnsonville Fossil Plant	Tennessee Valley Authority	Tennessee	New Johnsonville	295	506	802
50	Welsh	Central and South West Corp.	Texas	Pittsburg	117	500	618

Source: Environmental Working Group. Compiled from EPA and DOE data.
**Total air pollution is calculated by applying total mercury to plant specific emission modification factors. Releases include disposal in ponds and landfills as well as reuse applications like fertilizer. See Appendix A for a more complete explanation. Mercury pollution is attributed to the parent company of the plant operator as of January 1, 1999. Sales have been announced for several of the large power plants, for example, GPU has sold or agreed to sell all of its coal-burning power plants.*

***Indicate plants that the USEPA, the DOJ or the State of New York has targeted for Clean Air Act violations. NRDC and a coalition of midwest environmental advocacy groups have also notified of their intent to sue on many of these plants.*

Chapter 3

Government's Failure to Address Mercury Pollution from Electric Utilities

Controlling Mercury Stack Emissions

Mercury stack emissions from coal-fired power plants pose a serious public health and ecological threat, and therefore demand immediate action by EPA to curb these emissions. Electric utilities successfully lobbied Congress and EPA to exempt the industry from mercury controls, claiming that mercury pollution is a global problem that won't be reduced by national standards. However, modeling and deposition research shows that mercury stack emissions do have an impact on local and regional communities and ecosystems, supporting the need for mercury emission limits in the U.S.

A power plant's stack height, the form of mercury it releases, and the amount of rainfall in the area all affect how much mercury is deposited directly downwind of the plant. Based on modeling data, EPA estimates up to 15 percent of utility's mercury stack emissions can deposit within 30 miles of the plant; other data estimates 50 percent falling within 600 miles (U.S. EPA 1997a, Swain 1997).

While other significant combustion sources of mercury like waste incinerators have been required to control their mercury pollution, Congress and EPA have delayed action on power plant sources due primarily to industry pressure.

EPA correctly regards mercury as a priority pollutant and recently announced a policy to limit the direct discharge of mercury into rivers and lakes by industry. While these direct discharges should indeed be curbed, the continuing indirect discharges (mercury from the air, which account for the majority of mercury entering rivers and lakes) are just as harmful and should be eliminated. The power generating industry no doubt will continue to lobby EPA to ignore their mercury pollution.[1] It remains to be seen

[1] However, one group of electric companies did announce in 1999 that federal limits on mercury pollution from their industry were called for (NRDC and CEG 1999).

Table 7. Over 100 million tons of coal combustion waste containing over 40 tons of mercury is released into the environment every year.

Type of Combustion Waste	Total Waste (tons)	Waste Disposed in Landfill or Pond (tons)	Waste Reused (tons)	Total Mercury (tons)
Fly Ash	59,355,009	43,120,322	16,234,488	21.5
Bottom ash or boiler slag	18,629,111	11,364,777	7,264,323	16.6
Scrubber sludge	23,854,326	22,423,195	1,656,132	5.3
Total	101,838,446	76,908,294	25,154,943	43.4

Source: Keating 1999.

what course of action EPA will take, and whether once and for all, electric utilities will be faced with the same restrictions as other major known emitters of toxic mercury.

Beyond Stack Emissions

While devices built to control other pollutants can capture some mercury, major mercury releases to the environment occur from burning coal at today's power plants. Significant mercury releases also occur before and after combustion of the coal.

Before coal even arrives at the plant, an estimated 23,000 pounds (11.5 tons) of mercury each year is dumped into the environment as the coal is cleaned of impurities that affect combustion.

After combustion, based on EPA's emission factors, nearly half of the mercury burned at coal-fired power plants is dumped in boiler slag, coal ash or scrubber sludge (see Table 7). In addition, mercury is likely released when combustion waste is reused in products ranging from fertilizer to road building materials. While neither EPA nor the Department of Energy have ever tested mercury volatilization from coal combustion wastes, studies of mercury emissions to air from landfills, contaminated soils, municipal waste sludge, and chlor-alkali wastes, suggest that significant mercury emissions could result from disposal of coal combustion wastes (Keating 1999). Where waste is reused to make cement and wallboard (processes that expose the waste to high temperatures) the potential for mercury to be emitted during manufacture is very high.

Despite the incredible volume of toxic combustion waste generated by the utility industry each year, estimated at over 100 million tons annually (U.S. EPA 1999a), EPA was required to require the industry to manage its waste in a manner that would pose minimal public health or ecological risks. EPA

must make a decision in March 2000 on whether to regulate coal combustion waste as a hazardous waste, and it appears that EPA is poised to exempt the industry.

In a recently released report to Congress, EPA poorly characterized the threat of mercury releases from uncontrolled disposal of coal combustion wastes. The pathway for mercury is the atmosphere and yet nowhere in its report or supporting documents did EPA analyze mercury emissions from landfills, retention ponds, or "beneficial uses" (e.g., fertilizer, manufacturing, mine reclamation) (U.S. EPA 1999a). As a result, EPA concluded incorrectly that mercury releases from combustion waste do not pose a human health or ecological threat.

Chapter 4

Health Effects of Mercury

Mercury: A Ubiquitous Pollutant

Because airborne mercury can be transported great distances, it is an extremely widespread pollutant, contaminating remote lakes and distant ocean waters once thought to be pristine and immune to toxic pollution. Once it enters an aquatic environment mercury is converted to organic methylmercury and is taken up into the food chain and ultimately into the fish we eat. Mercury is so efficiently bioaccumulated in the aquatic food web that fish at the top of the food chain may have levels of mercury in their muscle tissue that are one million times higher than the mercury concentration in the water. Because of this extreme bioaccumulation, it takes very little mercury to contaminate a lake and its fish. Some scientists estimate that if all the mercury that deposited on a lake over an entire year were combined it would only amount to about $1/70^{th}$ of a teaspoon. Yet, this small amount, under the right conditions, could contaminate a 25-acre lake to the point where fish are unsafe to eat (Raloff 1991).

Who is at Risk from Mercury Exposure?

Eating mercury contaminated freshwater and marine fish is the major source of human exposure to methylmercury. The populations most at risk are fetuses, infants and young children, people who eat a lot of commercial fish or seafood, and people who rely on self-caught fish such as Native Americans and other subsistence fishers. Fish with the highest levels of mercury are those at the top of the food

Mercury Exposure

According to a general survey of fish consumption patterns in the United States (freshwater and marine):

About half of the people who eat fish daily, or 1-2% of the U.S. population, eat enough fish every day to potentially exceed what EPA considers a safe daily dose of mercury.

About 4 million, or 7%, of all women of child-bearing age eat enough mercury-contaminated fish to potentially exceed what EPA considers a safe dose of mercury. About 3 million children ages 3 to 6 eat enough mercury-contaminated fish to potentially exceed what EPA considers a safe dose of mercury.

chain, which includes largemouth bass, walleye, swordfish, and tuna.

Methylmercury poses a threat to ecosystems as well. In addition to fish and shellfish, state and federal wildlife managers have found alarmingly high levels of mercury in some fish-eating birds and mammals like loons, minks, and otters. Mercury poisoning has also contributed to the death of one of the endangered Florida panthers that scientists believe was feeding on fish-eating raccoons. Recent studies have found that high blood mercury levels in loons are affecting their ability to successfully nest and raise their young (Scheuhammer, et al. 1998).

Health Effects from Eating Mercury Contaminated Fish

Methylmercury is a known neurotoxin and when consumed by pregnant women it readily crosses the placenta and targets the developing fetal brain (U.S. DHHS 1995). Methylmercury can also be passed on to an infant through breast milk. Measured fetal methylmercury levels are higher than levels in maternal blood. Within the fetus methylmercury actually concentrates in developing central nervous system tissue. Because the developing central nervous system is fundamentally different and usually more sensitive than an adult's, fetuses, infants, and young children are most at risk for mercury exposure (Rice et al. 1996, Schmidt 1999). Methylmercury damage typically manifests as delayed walking, talking, speaking, or as subtle learning, memory and behavioral effects (Gilbert and Webster 1995).

Prenatal methylmercury exposure can kill developing brain cells and cause brain cells to migrate to the wrong position. When brain cells are killed the loss is permanent and the consequences are usually long lasting. Cells that migrate to the wrong position cannot make the right connections with their neighboring cells and do not develop normal function (Rodier 1994).

The Shrinking Safe Dose

As scientists learn more about mercury toxicity, the so-called "safe dose" continues to shrink. In 1972, the World Health Organization set a safe dose of 0.47 µg/kg of body weight per day. In 1985 the U.S. EPA published a safe dose of 0.3 µg'kg and in 1995 the EPA again lowered this amount to 0.1 µg/kg of body weight per day based on consideration of effects on the fetus. In 1997, the Science Advisory Board of the EPA suggested that the agency seriously consider lowering the safe dose even further. At least two additional peer-reviewed studies have concluded the same, recommending that the safe dose be lowered to between 0.06 and 0.025 µg/kg per day (Stern 1997, Gilbert and Webster 1995).

In 1998 the Agency for Toxic Substances and Disease Registry

Chapter 5

Actions Taken to Reduce Utility Mercury Pollution

Given EPA's inaction to control mercury stack emissions from electric utilities, to date there is considerable interest in Congress and others on the regional and international levels to address this problem.

National Power Plant Legislation

While the electric utility industry lobbies Congress, Governors, and others to weaken existing federal air pollution controls, support is mounting for national legislation to significantly curb utility air emissions. Several members of Congress have introduced national legislation that would force substantial reductions of nitrogen oxides, sulfur dioxide, carbon dioxide and mercury emissions simultaneously.

The four bills, introduced by Senators James Jeffords (R-NH) and Joe Lieberman (D-CT), Representative Frank Pallone (D-NJ), Representatives Henry Waxman (D-CA) and Sherwood Boehlert (R-NY), and Representative Tom Allen (D-ME), would require utilities to reduce mercury emissions by up to 90 percent in five years, while significantly curbing releases of the other three pollutants (sulfur dioxide, nitrogen oxides, and carbon dioxide). Emissions trading is permitted in all of these bills for carbon dioxide and permitted in some bills with local safeguards for sulfur and nitrogen pollutants. Trading of mercury is prohibited in all proposed legislation (see Table 9).

Rep. Allen's Clean Power Plant Act of 1999 is the only power plant bill introduced that requires electric utilities to handle their mercury-contaminated coal combustion waste as a hazardous waste. The bill would require that all mercury captured or recovered through the use of stack controls, coal cleaning, or elsewhere during the combustion process be disposed of in a manner that would prevent the re-release of mercury into the environment, or the contamination of another waste stream.

Mercury Legislation

In addition to the four-pollutant power plant bills, comprehensive mercury legislation has been introduced by Senator Patrick Leahy (D-VT) and Representative Allen (D-ME). The bills would require all major sources

Table 9. National four-pollutant power plant legislation.

Bill Sponsor	Emission Reductions Provisions
Jeffords*	Nitrogen Oxides - 1.66 million ton cap in 2005 Sulfur Dioxide - 3.58 million ton cap in 2005 Carbon Dioxide - 1.914 billion ton cap in 2005 Mercury - 5 ton cap (90 percent reduction) in 2005
Pallone*	Nitrogen Oxides - 22 Eastern states 540 thousand tons by 2003/4 Nitrogen Oxides - all states 1.66 million tons by 2005 Sulfur Dioxide - 4 million ton cap in 2004 Carbon Dioxide - 1.914 billion ton cap in 2005 Mercury - 50 percent reduction in 2005 Mercury - 90 percent reduction from 1990 levels in 2010
Waxman	Nitrogen Oxides - 75 percent reduction from 1997 levels by 2005 Sulfur Dioxide - 75 percent reduction from 1997 levels by 2005 Carbon Dioxide - 1990 levels by 2005 Mercury - 90 percent reduction from 1997 levels by 2005
Allen	Nitrogen Oxides - 1.5 lbs per MWH emissions rate Sulfur Dioxide - 3 lbs per MWH emissions rate Carbon Dioxide - 1.914 billion ton cap in 2005* Mercury - 70 percent reduction by 2005

**Use Generation Performance Standard to meet cap, a nationwide cap from which plant-by-plant caps will be calculated based on historic generation. Any emissions above the cap would have to be traded (except for mercury).*

***Allen's bill has a lower goal for mercury stack emission reductions; however, it is the only bill that targets total mercury releases (stack emissions and combustion wastes).*

of mercury emissions, including coal-burning electric utilities, to reduce mercury releases by 95 percent in five years. They would direct EPA to develop an emissions standard based on meeting the 95 percent reduction, and then require each power plant to meet that standard. Emissions trading is only permitted between boilers at a single plant location, but not between different electric utilities.

Regional Efforts

With little certainty that national mercury controls for electric utilities would be developed in the near future, New England Governors and Eastern Canadian Premiers independently pledged in their 1998 Mercury Action Plan to develop a reduction strategy for utilities and a timetable to phase in reductions. A regional mercury task force established by the New England Governors Conference was responsible for drafting and presenting the strategy in June 1999. To date, the task force has not developed the strategy, and has devoted little attention to it during its recent meetings. Unfortunately, none of the states

in New England has moved forward independently on setting mercury limits for electric utilities so the entire process in the region is currently stalled.

International

For the past two years, EPA and Environment Canada have convened a series of workgroups to meet the goals of the Binational Toxics Strategy, a voluntary strategy signed by Environment Canada and EPA in 1997. This strategy pledged each country to reduce by 50 percent all mercury emissions by 2006. The intent of the strategy was to provide a framework for meeting the broader goals of the Great Lakes Water Quality Agreement signed by the two countries in 1987 calling for virtual elimination of mercury releases.

While utilities have participated heavily in workshops examining mercury emissions from the electric power sector, utilities have not made any reductions. Furthermore, unlike the hospital and chlorine manufacturing industries, utilities have not even made a voluntary commitment to reduce mercury emissions. It appears doubtful that the Binational Toxics Strategy will bring about any reductions in mercury emissions from utilities.

Through a separate initiative, the Commission for Environmental Cooperation (CEC) recently developed a comprehensive utility mercury reduction strategy for the environmental administrators of the U.S., Canada, and Mexico. CEC was established under NAFTA and while they do not have any regulatory authority, they develop policies to help influence consistent action by the governments of North America. The strategy calls for a 90 percent reduction of mercury emissions by electric utilities over the next decade. It calls on each government to set a national, output-based technology forcing performance standard (e.g., mg/MW-hr) that would go into effect by the end of 2004 and require compliance by 2007-2010.

While market-based approaches can be used to meet the reduction requirements, the CEC strategy states that such approaches should only be used to achieve even greater reductions at each plant, and not to reduce the reduction requirements facing each plant.

Developing a MACT Standard for Electric Utilities

There is an urgent need to sharply reduce the mounting damage from utility mercury pollution, yet the development of an integral strategy to control all major utility air pollutants is some years away. Accordingly, EPA must take steps now to develop a stringent and effective mercury emissions reduction strategy for coal-fired electric power plants.

In determining the scope of a national emissions control strategy, EPA will likely rely on the methodology it uses in setting Maximum Achievable Control Technology (MACT) standards. These standards are supposed to be based on the performance of the best sources within an industry. However, over the past several years EPA has finalized a number of MACT standards that did not do this, and has been sued repeatedly by environmental groups. Given EPA's track record, EPA should consider the following recommendations when developing a mercury MACT standard for coal-fired utilities:

1. EPA should develop a stringent technology-neutral mercury standard for all coal-fired boilers, not graduated standards that let the dirtiest boilers continue to pollute at the highest rates. In other words, EPA should not subcategorize the 1,200 boilers, and then calculate the best performance within each of those categories. All coal-fired boilers, regardless of the type of coal burned, or the control equipment used, should be required to meet the same standard.

2. EPA's mercury performance standard should be based on measures to increase reliance on natural gas, low mercury renewable sources, and efficiency, combined with requirements to meet the best performance that is achievable at the lowest-mercury-emitting coal-burning unit. EPA must not allow boilers to keep emitting high quantities of mercury just because they install a particular control technology. There are a number of factors other than technology that affect the amount of mercury being emitted by a boiler, and EPA must take these into account by setting emissions standards that at a minimum reflect the performance of the best boilers.

3. The best performance will constitute what is called the MACT floor. EPA cannot set a standard more lenient than that floor, but the agency must go beyond the floor when regulating persistent bioaccumulative toxics, and require further reductions where such reductions are achievable. EPA should do that analysis for utility mercury emissions. As part of this analysis EPA must consider technologies other than baghouses or wet scrubbers like carbon injection, fuel switching, and increase efficiency of electricity production or use. These technologies are available and cost-effective in removing mercury; and fuel switching is cost-effective in removing other power plant pollutants.

4. Since mercury is extremely toxic, persists in the environment and bioaccumulates in food, it has non-air quality health and environmental impacts. Specifically, it poisons our nation's waters and the fish and wildlife that live in and around those waters. Mercury emitted by coal-fired power plants also makes fish unfit for human consumption, and EPA has recognized that a significant number of Americans (primarily women and children) are at risk because of mercury in the food they eat. EPA must consider this problem when it decides what level of mercury reductions to require from coal-fired power plants.

5. Emissions trading is not appropriate for a highly toxic pollutant like mercury. The environmental need is to reduce both the local and national loading of mercury to the environment. An emissions trading approach that allows some units to emit more mercury than the technically feasible performance standard, would allow an unjustifiable increase in risk for the individuals and the area affected by those units. This result should not be permitted.

Chapter 6

Recommendations

Curb Mercury Releases from Power Plants

For over a decade, electric utilities have lobbied successfully to avoid mercury controls. They have repeatedly argued that controls are not warranted until evidence exists that their mercury emissions present a threat. With that evidence in hand, recognizing that in the near term a significant amount of coal will continue to be burned to generate electricity, EPA should now take the next step. In addition, national legislation is needed to force the electric utility industry to clean up its act and reduce its dependence on dirty fuels. To this end, we recommend that:

1. EPA should impose stringent mercury emission limits on coal-burning power plants, relying in the near term on stack gas controls and encouragement of fuel switching and efficiency, and in the long term on reducing reliance on coal through increased efficiency and use of clean energy sources. By reducing utilities' current heavy reliance on coal we can lower total loadings of mercury into the environment through air emissions, mercury-laden combustion wastes, and coal washing.

2. EPA must regulate coal combustion waste as hazardous waste to ensure that it is managed to minimize—and eliminate—further mercury releases to the environment. This action should be taken in conjunction with limits on stack emissions of mercury to achieve effective limits on total mercury releases to the environment from coal combustion.

3. EPA should investigate the role of economic incentives *other than* pollution trading, such as consumer information and emissions charges, as part of a national mercury emissions reduction strategy for utilities. Trading mercury, as opposed to requiring each source to curb its emissions, is inappropriate for such an extremely toxic pollutant that poses a major risk to human health and wildlife. A trading policy for mercury also runs counter to the goals of the Great Lakes Water Quality Agreement (signed by the U.S. and Canada) and the goals outlined in EPA's

Clean Water Action Plan and EPA's draft persistent bioaccumulative toxics strategy.

4. Congress should enact legislation setting protective caps on emissions of mercury and other coal-combustion pollutants from electric generators. The Congress and EPA must also aggressively promote renewable energy and energy efficiency to minimize total mercury releases into the environment.

Take Steps to Eliminate Mercury Emissions Nationwide

1. Given its stated commitment to virtual elimination of mercury emissions (which it articulated in the Great Lakes Water Quality Agreement), EPA must improve its inventory of known and suspected mercury sources, and then devise a plan to dramatically reduce emissions from those sources. This plan should be integrated into EPA's draft Mercury Action Plan.

2. EPA should use its authority under Section 114 of the Clean Air Act to issue additional Information Collection Requests to collect detailed information on mercury emissions from refineries and industrial and commercial coal-fired (and co-fired) boilers. Virtually no monitoring data is available for these two sources, which are potentially significant sources of mercury emissions.

Appendix A

Methodology

Using recently collected coal samples from 447 power plants, we estimated the mercury emissions from the 397 power plants for which we have sufficient data. We used 1998 coal consumption data and pollution control data on all 397 power plants to estimate mercury emissions. The bulk of the pollution control equipment data was made available under part one of the mercury-RTK. The coal samples were collected under part two of the mercury-RTK, and the coal consumption data were taken from the Department of Energy.

The coal samples EPA collected from utilities are grouped by power plant and coal type and then weighted based upon the amount of coal that each sample represented (data detailing the amount of coal that the sample represented was provided by the company). For the samples that were not taken from shipments (five percent), but were instead taken from the coal reserves at the plant, we assumed that the sample represented the average amount of coal shipped to that plant.

After calculating the average mercury concentration for each coal type (e.g., bituminous) and power plant we estimated total mercury burned for each coal type that the plant burned in 1998. These figures were then added together to calculate the total mercury in the coal at each power plant.

To calculate plant mercury stack emissions we applied EPA's Emission Modification Factors (EMFs) to the total mercury in the coal burned at each power plant (see Table A1). We followed EPA's recommendation and assumed that these factors have a multiplicative effect (i.e., each piece of pollution control equipment further reduces mercury emissions). Using these factors, and accepting EPA's assumption that each piece of pollution control equipment adds to the removal efficiency of the last, yields removal efficiencies that probably underestimate the mercury stack emissions of power plants. For example, it is possible that mercury removal efficiencies decrease as the concentration of mercury in the stack gases decreases; however, in the absence of an alternative methodology we used EPA's methodology.

Under these assumptions, a facility that operates multiple pollution control devices is assumed to realize large mercury reductions. For example, a facility operating a FGD scrubber, a fabric filter and a cold-side ESP is assumed to reduce mercury emissions by 75 percent.

We used a DOE database detailing boiler types where EPA data were insufficient. With this data we were able to identify the boiler types at over 95 percent of all power plants. We did not use emission modification factors for two boiler types (cyclone-fired with nitrogen oxide controls and opposed-fired without nitrogen oxide controls) because they were each based upon tests at only one boiler for which the results are doubted. In the few cases with insufficient information to determine the type of boiler or pollution control equipment at the plant, we used EPA's default recommendations used in the Analysis of Emissions Reduction Options for the Electric Power Industry (EPA 1999). For two facilities where we had neither boiler type nor pollution control equipment information we used a plant emission modification factor of 50 percent. We used 1997 coal consumption data for the nine power plants that were sold or transferred to non-utility companies in 1998 and thus reported incomplete data to the Department of Energy.

Table A1. Effectiveness of current control technologies in capturing mercury.

Boiler Type	Percent of Mercury Emissions Controlled*
Arch-fired**	Not tested
Circulating Fluidized Bed	0%
Cyclone-fired***	7%
Front-fired boiler	6%
Opposed-fired***	19%
Stoker/Spreader**	Not tested
Tangentially-fired with NOx control	8%
Tangentially-fired without NOx control	19%
Vertically-fired	22%
Pollution Control Device	**Percent of Mercury Emissions Controlled***
FGD Scrubber	34%
Fabric Filter/Baghouse	44%
Cold-side (CS), Electro-static Precipitator (ESP)	32%
Hot-side (HS), Electro-static Precipitator (ESP)	0%
Particulate Matter Scrubber	4%
No Control	0%

Source: U.S. EPA, Analysis of Emissions Reduction Options for the Electric Power Industry, March 1999.
**Percent controlled represents the mean percent of mercury captured as non-stack waste.*
***We used EPA's methodology for arch-fired boilers. We used the EMF for vertically-fired plants, and for stoker/spreader we assume opposed-fired if boiler was constructed after 1980, otherwise tangential.*
****We did not use the Cyclone-fired (with NOx control) or the Opposed-fired (without NOx control) EMFs because they are based on one test for which the results are doubted.*

Appendix B

Pollution Controls and their Effect on Mercury Emissions

Part one of EPA's mercury-RTK contains the most complete publicly available profile to date of the air pollution controls used at coal-fired electric utility boilers throughout the U.S. Out of the 2,145 boilers included in part one, about 1,000 are not subject to the mercury-RTK either because coal was not a primary or secondary fuel, because they fell below the generating capacity threshold, or because they are not currently operating. The remaining 1,200 boilers comprise 447 power plants.

Mercury Controls for Coal-Fired Power Plants

Conventional Control Technology: Pre-Combustion Control

Coal Cleaning involves reducing the ash component, which contains trace minerals including mercury, as well as sulfur compounds, before the coal is crushed and introduced into the boiler for combustion. This process is used to lower shipping, storage, and handling costs per unit of heating value, and improves boiler output per unit weight input of coal. Coal cleaning has primarily focused

Table B1. Pollution Control Equipment

Particulate Matter Controls	Percent* with Equipment
ESPs (unspecified type)	22%
Cold-side ESPs	48%
Hot-side ESPs	12%
Fabric filters (baghouses)	14%
Particulate matter scrubber	3%
Other	0%
N/A	2%
No controls	1%
Sulfur Dioxide Controls	**Percent* with Equipment**
Low sulfur coal	38%
Flue gas desulfurization (scrubbers)	20%
Fluidized bed combustion	2%
Sorbant injection	2%
Other	1%
N/A	11%
No controls	27%
Nitrogen Oxide Controls	**Percent* with Equipment**
Low NOx burners	43%
SNCR	2%
SCR	1%
Overfire air	15%
Other	5%
N/A	10%
No controls	57%

Source: Environmental Working Group, compiled from EPA Mercury Information Collection data.
**The percent controlled exceeds 100% because some boilers have multiple controls. Thirty boilers did not submit data to EPA and are not included in these calculations.*

on removing sulfur to reduce acid rain-related emissions.

Average mercury removal efficiency: 21 percent

Percent of coal being cleaned: 77 percent Eastern and Midwestern bituminous coal is cleaned, compared with only 10-15% of Powder River Basin coal. Lignite is not cleaned.

Particulate Controls

Electrostatic Precipitators (ESPs) are used to reduce fly ash emissions by creating an ionized field that removes charged particles. Although they have low energy requirements and operating costs, ESPs have limited ability to remove mercury because mercury exists in a vapor form in flue gas and does not generally adsorb fly ash particles at typical combustion temperatures.

Average mercury removal efficiency: 32 percent for cold and zero percent for hot.

Percent of utility boilers equipped with ESPs: 82 percent

Fabric Filter (Baghouses), also used to limit fly ash emissions, pass flue gas through a tightly woven fabric capturing particulates on the fabric by sieving and other mechanisms. The dust cake that forms on the filter can increase significantly the collection efficiency. Baghouses can potentially reduce both elemental and ionic mercury.

Table B2. Boiler type.

Boiler Type	Percent
Arch	1.2%
CFB	3.4%
Cyclone	7.5%
Front	22.6%
Front (Rear)	0.7%
Opposed	17.1%
Other (Opposed)*	0.3%
Other (Tangential)*	3.5%
Stoker/Spr	2.2%
Tangential	38.3%
Vertically	3.2%

Source: Environmental Working Group. Compiled from EPA and DOE data.
**For the few (4 percent) boilers we could not classify we used EPA's default assumptions. See Appendix A for a more complete explanation. Thirty boilers did not submit data to EPA and are not included in these calculations.*

Average mercury removal efficiency: 44 percent

Percent of utility boilers equipped with baghouses: 14 percent.

Acid Gas Controls

Flue Gas Desulfurization (FGD) or Scrubbers are installed to remove sulfur dioxide from power plant flue gas. Scrubbers use sorbents to create the chemical reactions needed to remove sulfur dioxide. There are wet and dry scrubbers, with wet scrubbers being more efficient (up to 95%) in removing sulfur dioxide than dry scrubbers. One of the waste products

generated through the wet scrubber process is gypsum (calcium sulfate), which is sold commercially or disposed of. Wet scrubbers are more efficient in removing ionic mercury from waste incinerator flue gas compared to utility boiler flue gas.

Average mercury removal: 34 percent.

Percent of utility boilers using technology: 20 percent

Selective Catalytic Reduction (SCR) SCR technology is used to reduce emissions of nitrogen oxides (Nitrogen oxide) by using low Nitrogen oxide burners to create a fuel-rich primary combustion zone. This reduces the amount of thermal and fuel Nitrogen oxide created during combustion. Nitrogen oxide, a main component of smog, can be reduced up to 90% using SCR. Today, 60% of all utility boilers do not have controls to reduce nitrogen oxides.

SCRs have also been found to increase the amount of oxidized mercury downstream. Since mercury in an oxidized form is more readily captured by scrubbers, the combination of these flue gas controls may effectively capture a significant amount of mercury. One pilot study found that by installing an SCR unit, the scrubber's mercury removal efficiency increased to about 80%.

Fuel Switching

Fuel switching is switching from coal or oil to natural gas or renewables like wind or solar. The use of cleaner fuels would largely eliminate emissions of mercury, particulates, other metals, sulfur dioxide, and would significantly reduce emissions of nitrogen oxides and carbon dioxide.

Emerging Mercury Power Plant Controls

Although methods for mercury capture have been developed mainly for waste incinerators, new mercury control technologies are being developed for coal-fired utility boilers. Currently, none of these systems are being deployed commercially on U.S. utility boilers. Some of these technologies include:

Carbon Injection is the mercury control technology closest to commercialization for power plants. It involves the direct injection of activated carbon into the flue gas stream of a utility boiler. The carbon is collected in downstream particulate control equipment. Mercury removal depends on the total amount of carbon used, temperature, mercury speciation, flue gas composition, and type and amount of activated carbon used, averaging about 80-98% reduction.

Carbon Filter Beds are capable of removing high mercury concentrations from waste incinerators. In addition, several power plants in Germany and Japan use this technology for acid gas removal and achieve more than 90 percent mercury control as a co-benefit. However, carbon filter beds have not been tested for power plant flue gas mercury removal in the U.S. One pilot project measured at least 99% mercury removal on a municipal waste incinerator (NESCAUM 1999).

Condensing Heat Exchangers have a tube-and-shell heat exchanger which uses water to extract the residual heat from flue gas. A pilot test showed mercury removal of 84% with a boiler slipstream in addition to 11-36% removal of other toxic metals.

Mercury Capture using a Noble Metal Sorbent is based on the ability of some metals, gold in particular, to form alloys with mercury. This alloy formation is reversible and at elevated temperatures the mercury revolatilizes. Lab tests of alumina-supported gold showed 95% removal of gaseous mercury, regardless of chemical form.

References

Brown, Thomas, et al., 1999. Mercury Measurement and its Control: What We Know, Have Learned, and Need to Further Investigate. J. Air & Waste Management, June 1999, 1-97.

Center for Clean Air Policy, 1997. Power Plant Emissions and Water Quality, Part 1, 13.

Gilbert, Steven G. and Grant-Webster, Kimberly S. Neurobehavioral Effects of Developmental Methylmercury Exposure. *Environ Health Perspect.* 1996; 103(Suppl 6).

Keating, Martha, 1999. The Fate of Mercury in Coal-Fired Utility Boilers and Combustion Wastes. Presented to the Air and Waste Management Association, September, Minneapolis, Minnesota.

Natural Resources Defense Council (NRDC) and The Clean Energy Group (CEG), 1999. Air Toxics Emissions from Electric Power Plants.

Northeast States For Coordinating Air Use Management (NESCAUM), 1999. Controlling Emissions of Mercury from Electricity Generating Boilers. DRAFT.

Nessen, Len, 1998. Letter to unknown party, Division of Enforcement and Programs, Food and Drug Administration, US Department of Health and Human Services.

Raloff, Jo, 1991. Mercurial Risks From Acid's Rain, Science News, 130:152-156.

Rice DC, Evangelisa de Duffard AM. Lessons for Neurotoxicity from Selected Model Compounds: SGOMSEC Joint Report, *Environ Health Perspect.* 1996; 104(Suppl 2):205-215.

Schmidt CW. Poisoning Young Minds. *Environ Health Perspect.* 1999; 107(6): A302-A307.

Rodier, P. M. Vulnerable Periods and Processes during Central Nervous System Development, *Environ Health Perspect.* 1994; 102(Suppl 2).

Scheuhammer, A.M, Wong, A.H.K, Bond, D. Mercury and Selenium accumulations in common loons and common mergansers from Eastern Canada, *Environ. Toxicol. Chem.,* 1998; 17(2):197-201.

Stern, A. Estimation of the interindividual variability in the one-compartment pharmocokinetic model for methylmercury: Implications for the derivation of a reference dose, *Toxicology and Pharmacology.* 1997; 25(277-288).

U.S. Department of Health and Human Services. 1995. Agency for Toxic Substances and Disease Registry. Centers for Disease Control. Toxicology Fact Sheet: Mercury.

U.S. Department of Energy. 1998. Monthly Power Plant Data: EIA 759 Database.

U.S. Department of Energy. 1999. FETC Boiler Database.

U.S. EPA, 1999a. Analysis of Emissions Reduction Options for the Electric Power Industry.

U.S. EPA, 1999b. Electric Utility Mercury Emissions Information Collection Request.

U.S. EPA, 1999c. Report to Congress, Wastes from the Combustion of Fossil Fuels, Volume 1: Executive Summary, Volume 2: Methods, Findings, and Recommendations.

U.S. EPA, 1998a. Acid Rain Program, Emissions Scorecard.

U.S. EPA, 1998b. Final Report to Congress, Study of Hazardous Air Pollutant Emissions from Electric Utility Steam Generating Units, Appendix I, p. I-5.

U.S. EPA, 1997a. Mercury Study Report to Congress.

U.S. EPA, 1997b. National Listing of Fish Consumption Advisories.

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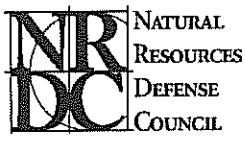

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Local regulations hinder development of wind power

Continued from page 1

lease land from Schroeder to erect wind turbines but faced immediate dissent from neighbors who protested the plan.

"Our township has passed a very restrictive ordinance," Schroeder said.

The ordinance establishes a setback from property lines that essentially limits the building of more than two wind turbines, Schroeder said.

"Who's going to finance a power line for two turbines? Nobody," he said.

Township Supervisor Mike Cockerill, also reported to be considering leasing land to Energy Conversion Devices, did not return calls for comment.

Other Michigan townships also have passed such ordinances in response to wind generation projects, including Bingham Township in Leelanau County and Eveline Township in Charlevoix County, according to the 2003 Michigan Renewable Energy Program annual report.

Property owners worry about aesthetics and noise related to the large turbines, the report stated, and fear property values may drop due to the structures.

"Windmills are big," acknowledged Greg Mulder, energy specialist at **Coffman Electrical** in Grand Rapids and a member of the steering committee that composed the state's alternative energy report. "There's a tremendous amount of resistance. Everyone always says, not in my back yard.

"Where you have the best wind is also where you have the best property value," he added.

"I have a hard time finding things wrong with it," Schroeder said. "I'd much rather see some wind turbines" than $500,000 homes that use up farmland.

"It's OK for them to have their $100,000 jobs," he continued, adding that farmers could use the money garnered from leasing their land. "The farming community could certainly use a shot in the arm."

A Lowell-based wind turbine manufacturer has faced such outcry but had a positive experience building windmills on Mackinac Island in 2001, **Mackinaw Power** president Rich Vander Veen said.

"We've learned these really need to be community-based projects," said Vander Veen, the president of Mackinaw Power and **Bay Windpower**, both based in Lowell.

Alternative Energy

one of a series

The two companies recently received certification as alternative energy technology businesses by the **Michigan NextEnergy Authority**. The certification designates companies as eligible to receive tax incentives, including exemptions from personal property tax.

"As our nation seeks more efficient and more environmentally friendly fuel sources, Michigan will lead the way," Gov. Jennifer Granholm said in the state's announcement of the certifications.

Many believe, however, that Michigan lags behind other states in promoting alternative energy use.

"Michigan's unfortunately far behind," said Coffman's Mulder, noting that 36 other states have net metering laws that require utilities to buy power from alternative producers.

As the 14th windiest state, Michigan has the potential to develop 7,460 megawatts of wind power, the state reported. So far, 2.4 megawatts have been developed.

The state noted that local blocks on wind turbine projects stymie many projects. Several groups — including the **Michigan Land Use Leadership Council** — have proposed statewide zoning for wind and other renewable energy development that would supercede local ordinances.

That's a position that might help Schroeder site turbines on his Muskegon County land.

"We just need to gather more support," Schroeder said. "I believe in local control just as much as the next guy, but you know the problem with local control — we get our hearts thinking more than our minds."

Energy Conversions is using Schroeder's land to gather wind data now, he said.

"When we feel the time is right, then we will pursue the next issue" — changing the ordinance, Schroeder said.

BDW

Manistee County Democratic Party

January 7, 2004

City of Manistee Planning Commission
c/o Mr. Jon Rose
70 Maple Street
Manistee, MI 49660

Dear Mr. Rose:

At a December 30 2003 meeting of the Executive Committee of the Manistee County Democratic Party, and after heated debate, members in attendance unanimously adopted the following resolution:

Based on the available evidence of the negative impact on the health and safety of the public and the environment, the un-reimbursed burden that the project would place on the local infrastructure, and the vague and ambivalent evidence of a gain in quality jobs,

The Executive Committee of the Manistee County Democratic Party has resolved to oppose the construction of the Northern Lights Coal Burning Power Plant.

We further encourage an independent environmental impact study *that will present to the public a more definitive explanation of the total effect on the local and surrounding communities. Should such a study indicate that the fears were unfounded, we will reconsider our action.*

Sincerely,

Tim Joseph

Tim Joseph
Party Chairman

COMMUNITY DEVELOPMENT
BUILDING DEPT.
JAN 8 2004
CITY OF MANISTEE

P.O. Box 65 Manistee, MI 49660 Phone (231) 477-5381 or (231) 398-9367