



Michigan Department of Environmental Quality
Waste and Hazardous Materials Division

SOLID WASTE DISPOSAL AREA OPERATING LICENSE

This license is issued under the provisions of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, MCL 324.11501 et seq., and authorizes the operation of this solid waste disposal area (Facility) in the state of Michigan. This license does not obviate the need to obtain other authorizations as may be required by state law.

FACILITY NAME: JR Whiting Solid Waste Disposal Area

LICENSEE/OPERATOR: Consumers Energy Company

FACILITY OWNER: Consumers Energy Company

PROPERTY OWNER: Consumers Energy Company

FACILITY TYPE(S): Type III Industrial Waste Surface Impoundment

FACILITY ID NUMBER: 397664

COUNTY: Monroe

LICENSE NUMBER: 9224

ISSUE DATE: August 12, 2009

EXPIRATION DATE: August 12, 2014

FACILITY DESCRIPTION: The JR Whiting Solid Waste Disposal Area, a Type III industrial waste surface impoundment, consists of 180.88 acres located in Sections 11 and 14, T8S, R8E, Erie Township, Monroe County, Michigan, as identified in Attachment A Page 1 and Page 2 and fully described in this license.

AREA AUTHORIZED FOR DISPOSAL OF SOLID WASTE: Ash Ponds 1-6.

RESPONSIBLE PARTY: Michelle Marion
Consumers Energy Company
4525 East Erie Road
Erie, Michigan 48133
734-848-2648

RENEWAL OPERATING LICENSE: This License Number 9224 supersedes and replaces Solid Waste Disposal Area Operating License Number 9018 issued to Consumers Energy Company on May 21, 2004.

This license is subject to revocation by the Director of the Michigan Department of Environmental Quality if the Director finds that this Facility is not being constructed or operated in accordance with the approved plans, the conditions of a permit or license, Part 115, or the rules promulgated under Part 115. Failure to comply with the terms and provisions of this license may result in legal action leading to civil and/or criminal penalties pursuant to Part 115. This license shall be available through the licensee during its term and remains the property of the Director.

THIS LICENSE IS NOT TRANSFERABLE.

Steven R. Sliver, Chief, Storage Tank and Solid Waste Section
Waste and Hazardous Materials Division

Licensee: Consumers Energy Company
Facility Name: JR Whiting Solid Waste Disposal Area
Operating License Number: 9224
Issue Date: August 12, 2009

The licensee shall comply with all terms of this license and the provisions of Part 115 and the administrative rules implementing Part 115 (Part 115 Rules). This license includes the license application and any attachments to this license.

1. The licensee shall operate the Facility in a manner that will prevent violations of any state or federal law.
2. The following portions of the Facility are authorized to receive solid waste by this license:

ACTIVE PORTIONS NOT AT FINAL GRADE: The area(s) identified as Ash Ponds 1 and 2 (23.82 acres); 3, 4, and 5 (49.82 acres); and 6 (55.47 acres) were authorized to receive waste by the previous license. This area's total acreage is 129.11 acres.

3. The following portions of the Facility **WILL BE** authorized to receive solid waste by this license following approval by the Michigan Department of Environmental Quality (MDEQ) of construction certification: None.
4. The following portions of the Facility are **NOT** authorized to receive solid waste by this license:

CLOSED UNIT(S) OR A PORTION OF A UNIT WHERE THE FINAL COVER HAS BEEN CERTIFIED CLOSED AND ACCEPTED BY THE MDEQ: The following unit(s) and/or portion(s) are closed:

- i. **PRE-EXISTING UNIT(S):** The unit(s) identified as Borrow Pit No. 1 (5.44 acres) and No. 2 (11.87 acres) were closed by the end of 1989. This area's total acreage is 17.31 acres.
- ii. **EXISTING UNIT(S):** The unit(s) identified as portions of Ponds 3, 4 & 5 had partial closure certified on December 2005, March 2008, and January 2009. These certifications were reviewed and approved by the MDEQ on December 28, 2006, July 16, 2008, and April 1, 2009, respectively. This area's total acreage is 51.77 acres.

5. The attached map (Attachment A, Page 1 and Page 2) shows the Facility, the area permitted for construction, monitoring points, leachate storage units, site roads, other disposal areas, and related appurtenances.
6. Issuance of this license is conditioned on the accuracy of the information submitted by the Applicant in the Application for License to Operate a Solid Waste Disposal Area (Application) received by the MDEQ on April 7, 2009, and any subsequent amendments. Any material or intentional inaccuracies found in that information is grounds for the revocation or modification of this license and may be grounds for enforcement action. The licensee shall inform the MDEQ's Waste and Hazardous Materials Division (WHMD), Jackson District Supervisor, of any inaccuracies in the information in the Application upon discovery.
7. This license is issued based on the MDEQ's review of the Application, submitted by Consumers Energy Company, for the JR Whiting Solid Waste Disposal Area, dated March 26, 2009, and revised April 28, 2009, May 8, 2009, May 15, 2009, and August 10, 2009. The Application consists of the following:
 - a. Application Form EQP 5507.
 - b. Application fee in the amount of \$2,500.00.
 - c. Certification of construction by N/A.
 - d. Waste Characterization: Waste characterization dated December 18, 2008. Results of the annual waste characterization required by R 299.4122 of the Part 115 Rules shall be submitted annually.

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e. Restrictive Covenant:

- i. The June 1, 2000, declaration restrictive covenant on 170.88 acres is on file at the Monroe County Register of Deeds recorded on August 30, 2000, as Liber 1936 pages 0705-0713. A copy is on file with the MDEQ.
- ii. An affidavit of correction to the June 1, 2000, declaration of restrictive covenant has been signed by the MDEQ and filed with the Monroe County Register of Deeds. The July 20, 2009, affidavit corrects the acreage to 180.88 acres.

f. Perpetual Care Fund Agreement, established as a trust account, signed by Mr. Robert A. French, Senior Vice President, Consumers Energy Company on August 14, 1997, was executed by the MDEQ on September 23, 1997.

g. Financial Assurance.

i. Financial Assurance Required:

The amount of financial assurance required for this Facility was calculated based on the calculation worksheet form EQP 5507A entitled, "Form A, Financial Assurance Required," and includes a Surety Bond of \$20,000.00 per acre of licensed landfill, and the Perpetual Care Fund requirement.

The Facility has provided financial assurance totaling \$1,099,284.41, based on the requirements of Section 11523 of Part 115, consisting of a combination of the Perpetual Care Fund established under Section 11525 of Part 115, and the bonding requirements of Section 11523 (1)(a) of Part 115. The financial assurance mechanisms used by the Facility are summarized below in Items ii and iii, respectively.

ii. Financial Assurance Provided Via a Perpetual Care Fund:

The Perpetual Care Fund Agreement statement showed a balance of \$99,284.41 in the Facility's Perpetual Care Fund as of February 28, 2009.

iii. Financial Assurance Provided Via Bond:

The following financial assurance has been received from the Applicant to meet the amount of financial assurance required:

Irrevocable Letter of Credit \$1,000,000.00

Total Amount Received: \$1,000,000.00

iv. Financial Assurance Provided Via a Financial Test for a Type II Landfill: N/A.

v. Financial Assurance Updates Required: N/A.

8. The following documents are incorporated in this license by reference:

- a. Hydrogeological Investigation of Fly Ash Disposal Ponds, JR Whiting Plant, Keck Consulting Services, Inc., received by the MDEQ on April 21, 1980.
- b. Soil Boring Logs, February 1976, Soil and Materials Engineers, Inc.
- c. Soil Boring Logs, June 1977, Soil and Materials Engineers, Inc.
- d. Monitor Well Installation Report, Soil and Materials Engineers, Inc., dated March 26, 1979.
- e. Soil Boring Logs, Material Testing Consultants, Inc., dated August 1988.

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- f. Hydrogeologic Work Plan, dated February 23, 1993, prepared by STS Consultants, Ltd.
 - g. Monitor Well Installation and Hydrogeological Report, dated August 12, 1993, prepared by STS Consultants, Ltd.
 - h. Hydrogeological Monitoring Plan, Consumers Power Company, dated October 1995, revised November 10, 1997, and November 26, 1997.
 - i. JR Whiting Solid Waste Disposal Area Engineering Plan (report) dated February 1, 1991, revised February 7, 1991, including the following attached engineering drawings:
 - (1) Whiting Plant Ash Dike Topo Ponds 1 & 2 (drawing No. SF 18514 sheet 1), dated December 28, 1990.
 - (2) Whiting Plant Ash Dike Topo Ponds 3, 4, & 5 (drawing No. SG 18514 sheet 1), dated December 28, 1990.
 - (3) Whiting Ash Dike Checks Pond # 6 (drawing No. S-G 17804 sheet 65), dated January 29, 1991.
 - (4) Plan and Sections of Fill Areas and Fields 1 & 2 (drawing No. 400-G-4022), dated July 6, 1983.
 - (5) Plant Site Layout J R Whiting Plan (drawing No. 400-G-1907 sheet 1A), dated May 8, 1974.
 - j. J R Whiting Plant Area C West Dike Reconstruction - Transmittal of "As-Built" Field Notes and Drawings, dated March 3, 1994, with attached engineering drawing titled "Proposed 1992 Reconstruction Ash Field # 6 Plan, Sections and Details" sheet 3 revision 1, dated September 25, 1992.
 - k. Final Closure Plan for Ash Ponds 3, 4, and 5, dated July 19, 2002.
 - l. Final Closure Plan for Ash Ponds 3, 4, and 5, dated July 19, 2002, and revised on February 18, 2005.
 - m. Construction Certification Consumers Energy Company, JR Whiting Plant Ash Disposal Area Final Cover System for Ash Ponds 3, 4, and 4, 2004 and 2005 Closures, dated December 2005.
 - n. Final closure system report for Ash Ponds 3, 4, and 5, dated March 17, 2008, as approved by MDEQ letter dated July 17, 2009.
 - o. Final Cover System Report for Ash Pond 6 dated March 17, 2008.
 - p. Construction Certification Consumers Energy JR Whiting Plant Ash Disposal Area, Ponds 3, 4, and 5, dated March 2008.
 - q. Construction Certification Consumers Energy JR Whiting Plant Ash disposal Area, Ponds 3, 4, and 5, dated January 2009.
9. The following additional documents, approved since the issuance of the construction permit(s) referenced in Item 8, are incorporated in this license by reference: N/A.
10. Consent Order/Judgment Number: N/A.
11. The licensee shall repair any portion of the certified liner or leachate collection system that is found to be deficient or damaged during the term of this license unless determined otherwise by the MDEQ.
12. The licensee shall have repairs to any portion of the certified liner or leachate collection system recertified by a registered professional engineer in accordance with R 299.4921 of the Part 115 Rules and approved by the MDEQ before receiving waste in that portion of the certified liner or leachate collection system. The licensee shall submit the recertification to the MDEQ's WHMD, Jackson District Supervisor, for review and approval.

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13. The licensee shall conduct hydrogeological monitoring in accordance with the approved hydrogeological monitoring plan, dated October 1995, and revised November 10, 1997, and November 26, 1997. The sampling analytical results shall be submitted to the MDEQ's WHMD, Jackson District Office.
14. Modifications to the approved hydrogeological monitoring plan referenced in Item 13 may be approved, in writing, by the WHMD, Jackson District Supervisor. Proposed revisions must be submitted in a format specified by the MDEQ.
15. Leachate may be recirculated if a leachate recirculation plan has been approved, in writing, by the Waste and Hazardous Materials Division, Jackson District Supervisor.
16. Modifications to approved engineering plans that constitute an upgrading, as defined in R 299.4106a(l) of the Part 115 Rules, may be approved, in writing, by the WHMD, Jackson District Supervisor.
17. Requests for alternate daily cover may be approved, in writing, by the Waste and Hazardous Materials Division, Cadillac District Supervisor.
18. Leakage Control Criteria:

This Type III Facility is a monitorable unit and, therefore, does not need to be in compliance with the leakage control criteria of R 299.4422 of the Part 115 Rules.

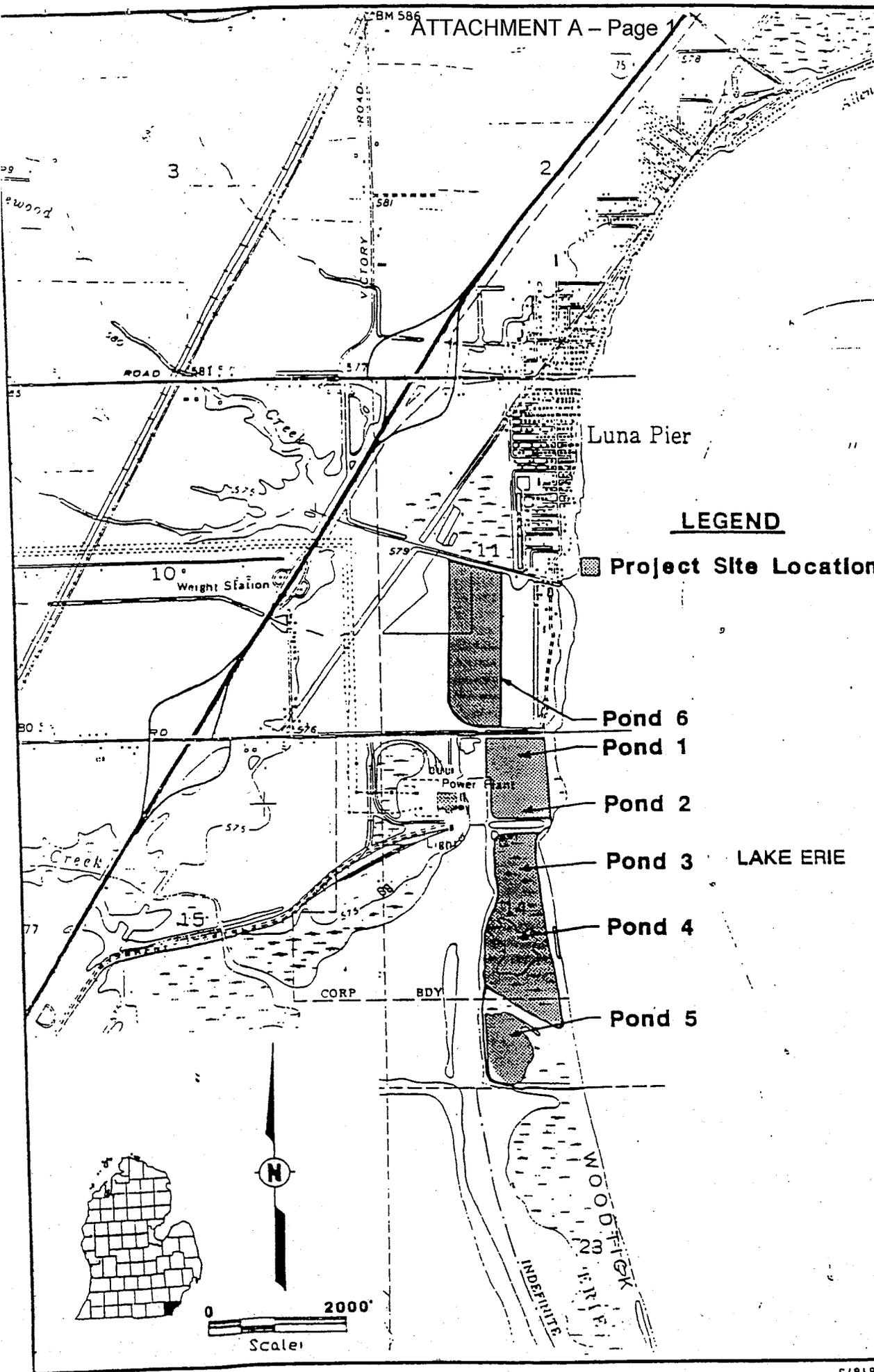
19. **VARIANCES:** None.

20. **SPECIAL CONDITIONS:**

Per R 299.4309(3), the licensee may only accept coal fly ash and coal bottom ash from the JR Whiting plant and other Type III wastes as approved by the MDEQ Director

21. **TERM:** This license shall remain in effect until its expiration date, unless revoked or continued in effect, as provided by, the Administrative Procedures Act, 1969 PA 306, as amended, or unless superseded by the issuance of a subsequent license.

END OF LICENSE



DATE	8/93
DRAWN BY	TJP
CHECKED BY	
APPROVED BY	
CAD FILE	

PROJECT SITE LOCATION
J.R. WHITING POWER PLANT
ERIE, MICHIGAN
CONSUMERS POWER COMPANY

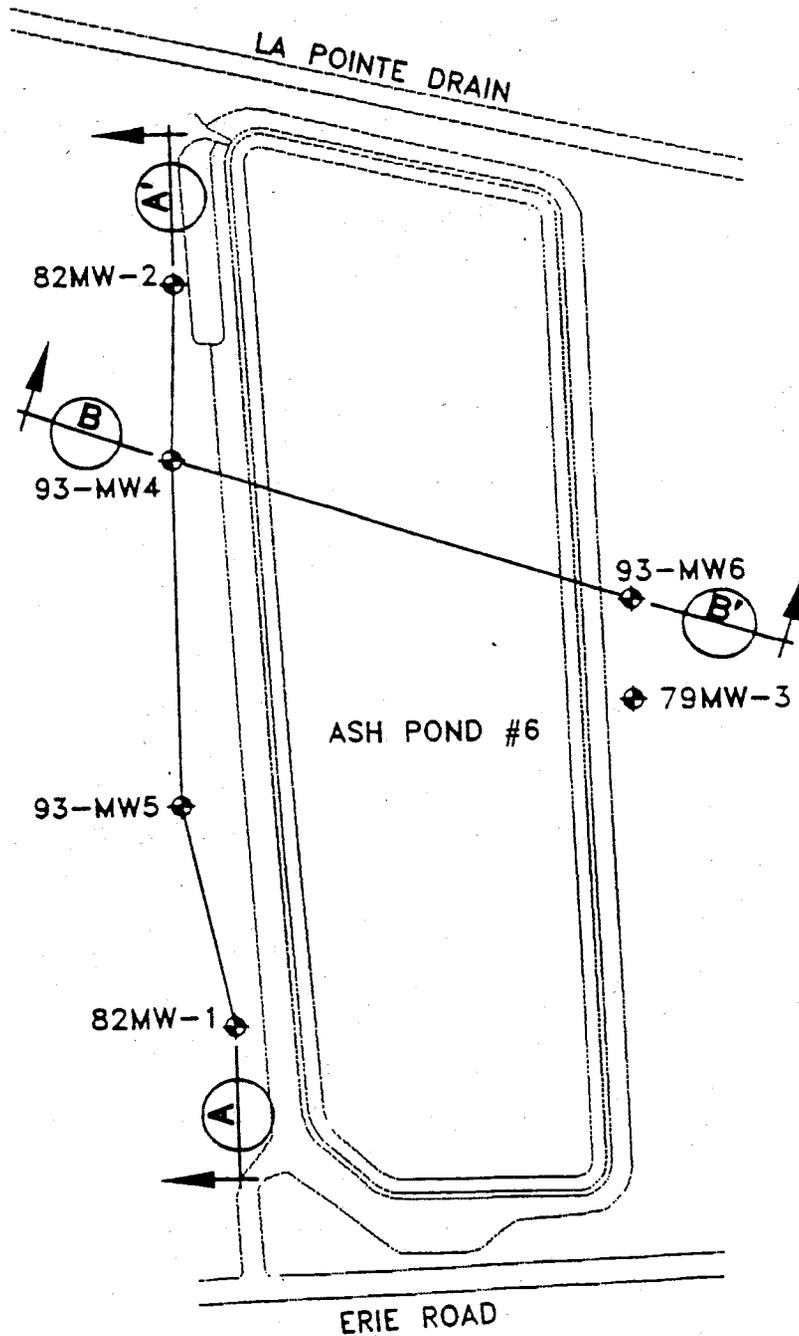
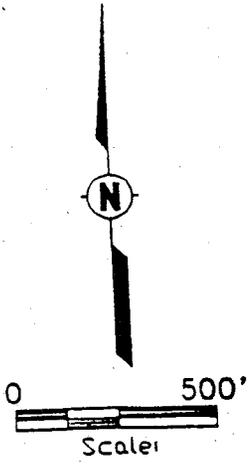


STS PROJECT NO.	72293XA
STS PROJECT FILE	72293XA
SCALE	1"=2000'
SHEET NO.	1

ATTACHMENT A - Page 2
LEGEND

◆ Existing Monitor Well Location

⊙ Geologic Cross Section Location
 (See Sheet 4 and Sheet 5)



DATE	1/85
DRAWN BY	CJD
CHECKED BY	
APPROVED BY	
CADFILE	72293SP.dwg

PROJECT SITE PLAN
J.R. WHITING POWER PLANT
MONROE COUNTY, MICHIGAN
CONSUMERS POWER COMPANY



STS PROJECT N°	72293X1
STS PROJECT F°	95-4
SCALE	1"=500'
SHEET NO.	2