

NPDES Permit No. IL0037613
Notice No. LRL:11063001.bah

Public Notice Beginning Date: **August 5, 2011**

Public Notice Ending Date: **September 6, 2011**

National Pollutant Discharge Elimination System (NPDES)
Permit Program

Draft Reissued NPDES Permit to Discharge into Waters of the State

Public Notice/Fact Sheet Issued By:

Illinois Environmental Protection Agency
Bureau of Water
Division of Water Pollution Control
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
217/782-0610

Name and Address of Discharger:

Thermal Chicago Corporation
200 West Jackson Blvd.
Chicago, Illinois 60606

Name and Address of Facility:

MDE Thermal Technologies - Plant 5
330 North Wabash Avenue
Chicago, Illinois 60611
(Cook County)

The Illinois Environmental Protection Agency (IEPA) has made a tentative determination to issue a NPDES permit to discharge into the waters of the state and has prepared a draft permit and associated fact sheet for the above named discharger. The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice/Fact Sheet. The last day comments will be received will be on the Public Notice period ending date unless a commentor demonstrating the need for additional time requests an extension to this comment period and the request is granted by the IEPA. Interested persons are invited to submit written comments on the draft permit to the IEPA at the above address. Commentors shall provide his or her name and address and the nature of the issues proposed to be raised and the evidence proposed to be presented with regards to those issues. Commentors may include a request for public hearing. Persons submitting comments and/or requests for public hearing shall also send a copy of such comments or requests to the permit applicant. The NPDES permit and notice number(s) must appear on each comment page.

The application, engineer's review notes including load limit calculations, Public Notice/Fact Sheet, draft permit, comments received, and other documents are available for inspection and may be copied at the IEPA between 9:30 a.m. and 3:30 p.m. Monday through Friday when scheduled by the interested person.

If written comments or requests indicate a significant degree of public interest in the draft permit, the permitting authority may, at its discretion, hold a public hearing. Public notice will be given 45 days before any public hearing. Response to comments will be provided when the final permit is issued. For further information, please call Leslie Lowry at 217/782-0610.

The applicant is engaged in producing chilled water used for building cooling (SIC 4961). Plant operation results in an average discharge of 41 MGD of non-contact cooling water from outfall 001.

The following modification is proposed:

Outfall 002 was renumbered to Outfall 001.

Application is made for the existing discharge which is located in Cook County, Illinois. The following information identifies the discharge point, receiving stream and stream classifications:

| <u>Outfall</u> | <u>Receiving Stream</u> | <u>Latitude</u> | <u>Longitude</u> | <u>Stream Classification</u> | <u>Integrity Rating</u> |
|----------------|-------------------------|-------------------|------------------|------------------------------|-------------------------|
| 001 | Chicago River | 41° 53' 17" North | 87° 37' 36" West | General Use | E |

To assist you further in identifying the location of the discharge please see the attached map.

The stream segment receiving the discharge from outfall 001 is on the 2010 303(d) list of impaired waters and is not a biologically significant stream.

The following parameters have been identified as the pollutants causing impairment:

| <u>Potential Cause</u> | <u>Designated Use</u> |
|--|--|
| Phosphorus (Total), Silver, Mercury, Polychlorinated Biphenyls, Fecal Coliform | Aquatic Life Use, Fish Consumption, Primary Contact Recreation |

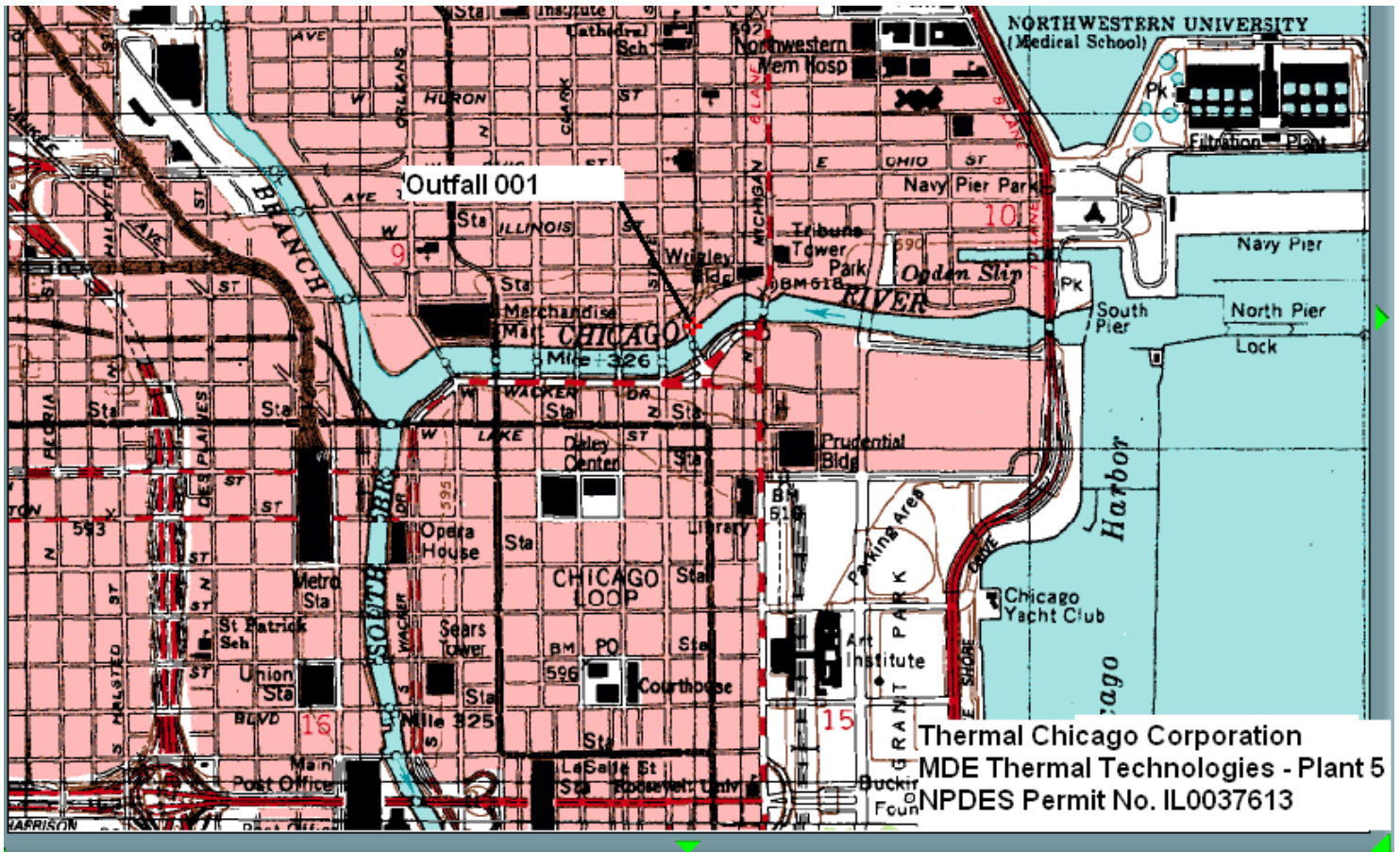
The discharge from the facility shall be monitored and limited at all times as follows:

| <u>PARAMETER</u> | <u>LOAD LIMITS lbs/day</u> <u>DAF (DMF)</u> | | <u>REGULATION</u> | <u>CONCENTRATION</u> <u>LIMITS mg/L</u> | | <u>REGULATION</u> |
|-------------------------|--|--------------------------------|-------------------|--|--------------------------------|-------------------|
| | <u>30 DAY</u> <u>AVERAGE</u> | <u>DAILY</u> <u>MAXIMUM</u> | | <u>30 DAY</u> <u>AVERAGE</u> | <u>DAILY</u> <u>MAXIMUM</u> | |
| <u>Outfall 001:</u> | | | | | | |
| Flow (MGD) | | | | | | |
| pH | | | | 6 – 9 s.u. | | 35 IAC 302.204 |
| Temperature | | | | | | 35 IAC 302.211 |
| Total Residual Chlorine | | | | | 0.05 | 40 CFR 125.3 |

The following explain the conditions of the proposed permit:

The Special Conditions clarify flow, pH, temperature, monitoring location, discharge monitoring report submission, and total residual chlorine.

A full demonstration pursuant to section 316(b) of the Clean Water Act was not conducted in the past for this facility. Special Condition 9 requires additional information to be submitted to the Agency pursuant to 316(b), so that the Agency can evaluate the potential impacts of the cooling water intake structure operations pursuant to 40 CFR 125.90(b).



NPDES Permit No. IL0037613

Illinois Environmental Protection Agency

Division of Water Pollution Control

1021 North Grand Avenue East

Post Office Box 19276

Springfield, Illinois 62794-9276

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Reissued (NPDES) Permit

Expiration Date:

Issue Date:

Effective Date:

Name and Address of Permittee:

Thermal Chicago Corporation
200 West Jackson Blvd.
Chicago, Illinois 60606

Facility Name and Address:

MDE Thermal Technologies - Plant 5
330 North Wabash Avenue
Chicago, Illinois 60611
(Cook County)

Discharge Number and Name:

001 Non-Contact Cooling Water

Receiving Waters:

Chicago River

In compliance with the provisions of the Illinois Environmental Protection Act, Title 35 of Ill. Adm. Code, Subtitle C and/or Subtitle D, Chapter 1, and the Clean Water Act (CWA), the above-named permittee is hereby authorized to discharge at the above location to the above-named receiving stream in accordance with the standard conditions and attachments herein.

Permittee is not authorized to discharge after the above expiration date. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit the proper application as required by the Illinois Environmental Protection Agency (IEPA) not later than 180 days prior to the expiration date.

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

SAK: LRL:11063001.bah

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Effluent Limitations and Monitoring

1. From the effective date of this permit until the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

| PARAMETER | LOAD LIMITS lbs/day DAF (DMF) | | CONCENTRATION LIMITS mg/L | | SAMPLE FREQUENCY | SAMPLE TYPE |
|--|----------------------------------|------------------|------------------------------|------------------|----------------------------|----------------|
| | 30 DAY AVERAGE | DAILY MAXIMUM | 30 DAY AVERAGE | DAILY MAXIMUM | | |
| Outfall 001 – Non-Contact Cooling Water (Average Flow = 41 MGD) | | | | | | |
| Flow (MGD) | See Special Condition 1. | | | | Measure When Monitoring | |
| pH | See Special Condition 2. | | | | 1/Month | Single Reading |
| Temperature | See Special Condition 3. | | | | 1/Month | Grab |
| Total Residual Chlorine | See Special Condition 4. | | | 0.05 | 1/Month | Grab |

Special Conditions

SPECIAL CONDITION 1. Flow shall be measured in units of Million Gallons per Day (MGD) and reported as a monthly average and a daily maximum on the monthly Discharge Monitoring Report.

SPECIAL CONDITION 2. The pH shall be in the range 6.0 to 9.0. The monthly minimum and monthly maximum values shall be reported on the DMR form.

SPECIAL CONDITION 3. This facility is not allowed any mixing with the receiving stream in order to meet applicable water quality thermal limitations. Therefore, discharge of wastewater from this facility must meet the following thermal limitations prior to discharge into the receiving stream.

A. The discharge must not exceed the maximum limits in the following table during more than one percent of the hours in the 12 month period ending with any month. Moreover, at no time shall the water temperature of the discharge exceed the maximum limits in the following table by more the 1.7 °C (3 °F).

| | <u>Jan.</u> | <u>Feb.</u> | <u>Mar.</u> | <u>April</u> | <u>May</u> | <u>June</u> | <u>July</u> | <u>Aug.</u> | <u>Sept.</u> | <u>Oct.</u> | <u>Nov.</u> | <u>Dec.</u> |
|----|-------------|-------------|-------------|--------------|------------|-------------|-------------|-------------|--------------|-------------|-------------|-------------|
| °F | 60 | 60 | 60 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 60 |
| °C | 16 | 16 | 16 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 16 |

B. In addition, the discharge shall not cause abnormal temperature changes that may adversely affect aquatic life unless caused by natural conditions.

C. The discharge shall not cause the maximum temperature rise above natural temperatures to exceed 2.8 °C (5 °F).

D. The monthly maximum value shall be reported on the DMR form.

SPECIAL CONDITION 4. All samples for Total Residual Chlorine shall be analyzed by an applicable method contained in 40 CFR 136, equivalent in accuracy to low-level amperometric titration. Any analytical variability of the method used shall be considered when determining the accuracy and precision of the results obtained.

SPECIAL CONDITION 5. Samples taken in compliance with the effluent monitoring requirements shall be taken at a point representative of the discharge, but prior to entry into the receiving stream.

SPECIAL CONDITION 6. The Permittee shall record monitoring results on Discharge Monitoring Report (DMR) Forms using one such form for each outfall each month.

In the event that an outfall does not discharge during a monthly reporting period, the DMR Form shall be submitted with no discharge indicated.

The Permittee may choose to submit electronic DMRs (eDMRs) instead of mailing paper DMRs to the IEPA. More information, including registration information for the eDMR program, can be obtained on the IEPA website, <http://www.epa.state.il.us/water/edmr/index.html>.

The completed Discharge Monitoring Report forms shall be submitted to IEPA no later than the 15th day of the following month, unless otherwise specified by the permitting authority.

Permittees not using eDMRs shall mail Discharge Monitoring Reports with an original signature to the IEPA at the following address:

Illinois Environmental Protection Agency
 Division of Water Pollution Control
 1021 North Grand Avenue East
 Post Office Box 19276
 Springfield, Illinois 62794-9276

Attention: Compliance Assurance Section, Mail Code # 19

SPECIAL CONDITION 7. If an applicable effluent standard or limitation is promulgated under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act and that effluent standard or limitation is more stringent than any effluent limitation in the permit or controls a pollutant not limited in the NPDES Permit, the Agency shall revise or modify the permit in accordance with the more stringent standard or prohibition and shall so notify the permittee.

Special Conditions

SPECIAL CONDITION 8. For the purpose of this permit, this discharge is limited to non-contact cooling water, free from process and other wastewater discharges. In the event that the permittee shall require the use of water treatment additives, the permittee must request a change in this permit in accordance with the Standard Conditions – Attachment H.

SPECIAL CONDITION 9. In order for the Agency to evaluate the potential impacts of cooling water intake structure operations pursuant to 40 CFR 125.90(b), the permittee shall prepare and submit information to the Agency outlining current intake structure conditions at this facility, including a detailed description of the current intake structure operation and design, description of any operational or structural modifications from original design parameters, source waterbody flow information as necessary.

The information shall also include a summary of historical 316(b) related intake impingement and/or entrainment studies, if any, as well as current impingement mortality and/or entrainment characterization data; and shall be submitted to the Agency within six (6) months of the permit's effective date.

Upon the receipt and review of this information, the permit may be modified to require the submittal of additional information based on a Best Professional Judgment review by the Agency. This permit may also be revised or modified in accordance with any laws, regulations, or judicial orders pursuant to Section 316(b) of the Clean Water Act.