

NPDES Permit No. IL0066541  
Notice No. MEL:07102201.daa

Public Notice Beginning Date: **June 6, 2013**

Public Notice Ending Date: **July 8, 2013**

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:

Northwestern University  
2020 Ridge Ave., suite 200  
Evanston, Illinois 60208

Name and Address of Facility:

Central Utility Plant  
2025 Sheridan Road  
Evanston, Illinois 60208  
(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 Mark E. Liska at 217/782-0610.

The applicant is engaged in the operation of a large university campus (SIC 8221). Waste water is generated from the discharge of once-through non-contact cooling water to cool chiller systems as well as laboratories and computers. Plant operation results in an average discharge of 16.6 MGD of non-contact cooling water from outfall 001, 8.3 MGD of non-contact cooling water from outfall 002..

The following modification is proposed:

The flow through outfalls 001 and 002 have increased slightly due to the addition of new chiller units.

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

Outfall	Receiving Stream	Latitude		Longitude		Stream Classification	Biological Stream Characterization
001	Lake Michigan	42° 3' 9"	North	87 ° 40' 6"	West	Lake Michigan Basin	Not Rated
002	Lake Michigan	42° 3' 23"	North	87 ° 40' 13"	West	Lake Michigan Basin	Not Rated

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

The stream segment IL\_QM-06 receiving the discharge from outfall(s) 001 and 002 is on the 2010 303(d) list of impaired waters and is not a biologically significant stream on the 2008 Illinois Department of Natural Resources Publication – *Integrating Multiple Taxa in a Biological Stream Rating System*.

Designated Use		Potential Cause
Fish Consumption Primary Contact Recreation		Mercury, PCBs Escherichia Coli

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

Outfall: 001, 002

	LOAD LIMITS lbs/day DAF (DMF)			CONCENTRATION LIMITS mg/l		
PARAMETER	30 DAY AVERAGE	DAILY MAXIMUM	REGULATION	30 DAY AVERAGE	DAILY MAXIMUM	REGULATION
Flow						35 IAC 309.146
pH						35 IAC 302.503
Temperature						35 IAC 302.506 & 35 IAC 302.507
Total Residual Chlorine					0.05	40 CFR 125.3

The following explain the conditions of the proposed permit:

Special Conditions will require monthly DMR submission, outline temperature requirements, and explain the analysis methods for total residual chlorine.

The increase in non-contact cooling water is not subject to an antidegradation analysis pursuant to 35 Ill. Adm. Code 302.105(d).



NPDES Permit No. IL0066541

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:

Northwestern University  
2020 Ridge Ave., suite 200  
Evanston, Illinois 60208

Facility Name and Address:

Central Utility Plant  
2025 Sheridan Road  
Evanston, Illinois 60208  
(Cook County)

Discharge Number and Name:

001 - Non-Contact Cooling Water  
001 - Non-Contact Cooling Water

Receiving Waters:

Lake Michigan  
Lake Michigan

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:MEL:07102201.daa

NPDES Permit No. IL0066541

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:

Outfall(s)      001 - Non-Contact Cooling Water (Discharge = 16.6 MGD (Annual Average))  
                      002 - Non-Contact Cooling Water (Discharge = 8.3 MGD (Annual Average))

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		
Flow	See Special Condition 1				Measure When Monitoring	Continuous
pH	See Special Condition 2				1/Month	Grab
Temperature	See Special Condition 3				1/Month	Single Reading
Total Residual Chlorine*				0.05	1/Month	Grab

\*See also Special Condition 4

Special Conditions

SPECIAL CONDITION 1. Flow shall be reported as a monthly average and daily maximum in million gallons per day on the DMR form.

SPECIAL CONDITION 2. The pH shall be in the range 7.0 to 9.0. The monthly minimum and monthly maximum values shall be reported on the DMR form.

SPECIAL CONDITION 3. For discharges to Lake Michigan, the following conditions shall be met outside a mixing zone which shall be no greater than a circle with a radius of 1000 feet or an equal fixed area of simple form:

- A. There shall be no abnormal temperature changes that may affect aquatic life.
- B. The normal daily and seasonal temperature fluctuations that existed before the addition of heat shall be maintained.
- C. The maximum temperature rise at any time above natural temperatures shall not exceed 1.7° C (3° F). In addition, the water temperature shall not exceed the maximum limits indicated in the following table:

	<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	45	45	45	55	60	70	80	80	80	65	60	50
°C	7	7	7	13	16	21	27	27	27	18	16	10

- D. Neither the bottom, the shore, the hypolimnion, nor the thermocline shall be affected by any heated effluent.
- E. No heated effluent shall affect spawning grounds or fish migration routes.
- F. Discharge structures shall be so designed as to maximize short-term mixing and thus to reduce the area significantly raised ni temperatures.
- G. No discharge shall exceed ambient temperatures by more than 11° C (20° F).
- H. Heated effluents from more than one source shall not interact.
- I. All reasonable steps shall be taken to reduce the number of organisms drawn into or against the intakes.
- J. Cleaning of condensers shall be accomplished by mechanical devices. If chemical must be used to supplement mechanical devices, the concentration at the point of discharge shall not exceed the 96-hour TL<sub>m</sub> for fresh water organism.

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 in 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. 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 CONDITION 7. 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.

Special Conditions

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 8. For the purpose of this permit, the discharge 001 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. Dechlorination chemical(s) shall be applied at a rate sufficient to provide complete dechlorination; excess application should be avoided to the extent practicable. The dechlorination system shall be interlocked or otherwise controlled to operate whenever chlorination is occurring.

NPDES Permit No. IL0066541

Special Conditions