

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
WATER POLLUTION CONTROL PERMIT

LOG NUMBERS: 2023-68367  
BOW ID: W0328990003

PERMIT NO.: 2023-SC-68367

FINAL PLANS, SPECIFICATIONS, APPLICATION  
AND SUPPORTING DOCUMENTS

DATE ISSUED: July 25, 2023

PREPARED BY: Metropolitan Water Reclamation District of Greater Chicago

SUBJECT: MWRDGC – Calumet WRP and Stickney WRP - Land Application of Sewage Sludge

PERMITTEE TO OPERATE

Metropolitan Water Reclamation District of Greater Chicago  
100 East Erie Street  
Chicago, Illinois 60611

Permit is hereby granted to the above designated permittee(s) to operate water pollution control facilities described as follows:

Application of approximately 190,000 dry tons per year of composted and anaerobically digested sewage sludge to agricultural lands at rates not to exceed the agronomic nitrogen demand of the crop grown.

Biosolids from Egan WRP may be conveyed/transported to Stickney WRP for additional treatment. Biosolids may be conveyed/transported to MWRDGC's Lawndale Avenue Solids Management Area in Willow Springs, Illinois for additional treatment and drying including offsite storage.

This operating permit expires on June 30, 2028.

This permit renews and replaces Permit Number 2018-SC-63703 and 2018-SC-63703-1 which were previously issued for the herein permitted facilities.

This Permit is issued subject to the following Special Condition(s). If such Special Condition(s) require(s) additional or revised facilities, satisfactory engineering plan documents must be submitted to this Agency for review and approval for issuance of a Supplemental Permit.

SPECIAL CONDITION 1: Sludge applied to land under this permit shall be incorporated within 24 hours or one working day, whichever is least.

SPECIAL CONDITION 2: Prior to the initiation of sludge application at variable rates under this permit the permittee shall notify the Agency of the location of the proposed sites. The permittee shall submit plat maps showing the location of said sites.

SPECIAL CONDITION 3: Prior to the application of sludge to land at sites, other than those sites previously identified, the permittee shall submit a plat map and a soils map showing the location of the proposed site to both the Agency's Des Plaines Field Office and the Division of Water Pollution Control-Permit Section in Springfield. For sites which have been previously identified as receiving sludge, the permittee may submit a list of sites receiving additional applications.

SPECIAL CONDITION 4: For the duration of this permit, the permittee shall sample all different sludges being applied to land or publicly distributed on a monthly basis and chemically analyze said samples in accordance with the recommended

THE STANDARD CONDITIONS OF ISSUANCE INDICATED ON THE REVERSE SIDE MUST BE COMPLIED WITH IN FULL. READ ALL CONDITIONS CAREFULLY.

BDF:JAR:2023-68367

DIVISION OF WATER POLLUTION CONTROL

cc: EPA-Des Plaines FOS  
Records - Municipal  
Compliance Assurance Section

*Brant D. Fleming / JAR*  
Brant D. Fleming, P.E.  
Manager, Municipal Unit, Permit Section

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procedures contained in the latest edition of Standard Methods for the Examination of Water and Wastewater for the following parameters:

Nutrients (mg/kg)	Metals (mg/kg)	Other
Total Kjeldahl Nitrogen	Cadmium	pH
Ammonia Nitrogen	Copper	% TS
Phosphorus	Lead	% VS
Potassium	Manganese	Volatile Acids
	Nickel	
	Zinc	

Sampling shall consist of a grab sample and be reported as a maximum value.

The results of these analyses shall be submitted to this Agency on a monthly basis on Discharge Monitoring Report (DMR) electronic forms. The permittee shall update the sludge application rate utilizing all sludge analyses obtained after the previous sludge application period. Sampling results shall be submitted to the Agency no later than the 25<sup>th</sup> day of the following month. For example January's sampling data shall be submitted no later than February 25<sup>th</sup>.

The Permittee is required to submit electronic DMRs (NetDMRs) instead of mailing paper DMRs to the IEPA unless a waiver has been granted by the Agency. More information, including registration information for the NetDMR program, can be obtained on the IEPA website, <https://www2.illinois.gov/epa/topics/water-quality/surface-water/netdmr/pages/quick-answer-guide.aspx>.

Permittees that have been granted a waiver shall mail Discharge Monitoring Reports with an original signature to the IEPA at the following address:

Illinois Environmental Protection Agency  
Bureau of Water  
Compliance Assurance Section  
Mail Code #19  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276

**SPECIAL CONDITION 5:** For the duration of this permit, the permittee shall determine the quantity of sludge produced by the treatment facility in dry tons or gallons with a percent total solids analysis. The permittee shall maintain adequate records of the quantities of sludge produced and have said records available for Agency inspection. The permittee shall submit to the Agency a semi-annual summary report of the quantities of sludge generated and disposed (in units of dry tons) by different disposal methods including but not limited to application on farmland, application on reclamation land, landfilling, public distribution, dedicated land disposal, sod farms, storage lagoons or any other specified disposal method. Said reports shall be submitted to the Agency by January 31 and July 31 of each year reporting the preceding July through December and January through June sludge disposal operations respectively. Monitoring reports for sludge shall be reported on the form titled "Sludge Management Report Form" and submitted electronically to [EPA.PrmtSpecCondtns@illinois.gov](mailto:EPA.PrmtSpecCondtns@illinois.gov) with "2023SC68367 Special Condition 5" as the subject of the email. Forms are available on the following webpage: <https://www2.illinois.gov/epa/topics/forms/water-forms/Pages/wastewater-compliance.aspx>.

**SPECIAL CONDITION 6:**

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- A. Sludge shall be applied to sites within the following guidelines:
1. Sludge shall not be applied to sites during precipitation.
  2. Sludge shall not be applied to sites which are saturated or with ponded water.
  3. Sludge shall not be applied to ice or snow covered sites unless applied solely to sites identified as suitable for winter application under an effective existing state operating permit.
  4. Frozen land which has a slope of 5% or less, may be used for land application of sludge provided a 200 foot grassy area exists between the sludge applied land and any surface water or potable water supply well.
- B. It is not recommended that sludge be applied to sites:
1. When precipitation is imminent,
  2. Which have received greater than 1/4 inch rainfall within the 24-hour period preceding the intended sludge application time.
- C. Sludge shall not be applied to land which lies within 200 feet from a community water supply well, potable water supply well, surface waters or intermittent streams or within one-fourth of a mile of any potable water supply wells located in consolidated bedrock such as limestone or sinkhole areas unless a 50 foot depth of non-sandy or non-gravelly unconsolidated material exists. In no case shall sludge be applied within 400 feet of a community water supply well deriving water from an unconfined shallow fractured or highly permeable bedrock formation or from an unconsolidated and unconfined sand and gravel formation.
- D. Sludge shall not be applied within 100 feet of an occupied residence.
- E. Sludge shall not be applied to sites during the periods in which the seasonal high water table rises within 3 feet of the surface at the site.
- F. Sludge shall only be applied to land with a background soil pH of 6.5 or greater unless lime or other suitable materials are applied to the site prior to sludge application to raise the soil pH to a minimum of 6.5.
- G. Sludge shall be applied and incorporated into the site soils within the following guidelines:
1. Sludge may be surface applied without incorporation only if the site slope is less than 8% and the annual soil loss does not exceed 5 tons/acre as determined by the Universal Soil Loss Equation.
  2. Sludge shall be incorporated if:
    - a) Site slope exceeds 8% but the annual soil loss is less than 5 tons/acre, or
    - b) Site slope is less than 8% but the annual soil loss exceeds 5 ton/acre.
  3. Sludge shall not be applied to a site with slope greater than 8% with annual soil loss in excess of 5 ton/acre.
  4. Unless surface application is allowed pursuant to this condition, or otherwise specified in this permit, sludge shall be incorporated within 48 hours of application or prior to any rainfall whichever is more restrictive.
- H. Sludge amended land shall have a crop grown and harvested pursuant to normal agricultural practices.
- I. The delivery and application of sludge, and the choice of an application site, shall be made so as to minimize the emission of odors to nearby residents taking into account the direction of wind, humidity and day of the week.

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J. Sludge application shall not exceed the following maximum metal loading rates over the lifetime of a site (pounds per acre).

1. Soils with 5-15 meq/100 grams Cation Exchange Capacity (CEC):

Metal	Total Loading	Annual Loading
Cadmium	10	2
Nickel	100	--
Copper	250	--
Zinc	500	--
Manganese	900	--
Lead	1000	--

2. Soils with 0-5 meq/100 grams CEC shall apply only half the metal loading rates set forth in item J(1) above.

3. Soils with 15 or greater meq/100 grams CEC may apply double the total metal loading rates set forth in item J(1) above, however a supplemental permit shall be required for that specific site.

K. Sludge stored off-site from where it was generated shall be performed within the following guidelines:

1. Off-site interim storage of liquid sludge shall not be allowed.

2. Off-site interim storage of dried sludge in excess of 30 days shall not be allowed. In addition, measures shall be taken to contain runoff and leachate from any dried sludge that is stored.

3. Off-site stockpiling of sludge is prohibited from November 15 to March 1, unless such stockpiling occurs on sites specifically identified in an effective State Operating Permit as suitable for application on ice and/or snow covered ground.

4. Sludge stockpiled on sites not approved for winter application after November 15 shall be returned to the generating facility or moved to a site approved for application on ice and/or snow covered ground.

L. Users applying sludge to sites greater than 300 acres under common ownership or control or users of more than 1500 dry tons per year shall obtain a sludge user permit from this Agency unless the site is specifically identified in the permittee's application.

M. User information sheets, in conformance with the Design Criteria for Sludge Application on Land (Title 35, Subtitle C, Chapter II, Part 391), shall be provided by the permittee to all sludge users and shall be signed by sludge users. Records regarding sludge users shall be retained by the permittee for the duration of this permit and 2 years after the expiration date of this permit.

N. No sooner than 90 days and no later than 7 days prior to the application of sludge to land written notice shall be provided to the owner(s) of the land receiving the sludge, the owners of land adjacent to the land receiving the sludge and the Township and County officials whose jurisdiction encompasses the sludge application site.

O. The permittee shall retain agronomic calculations and supporting sludge analyses for a period of not less than 5 years. Said sludge analysis shall be in compliance with 40 CFR 503.8 and 35 Ill. Adm. Code 391.501. Such records shall be available to any person or party upon request.

**READ ALL CONDITIONS CAREFULLY:  
STANDARD CONDITIONS**

The Illinois Environmental Protection Act (Illinois Revised Statutes Chapter 111-12, Section 1039) grants the Environmental Protection Agency authority to impose conditions on permits which it issues.

1. Unless the construction for which this permit is issued has been completed, this permit will expire (1) two years after the date of issuance for permits to construct sewers or wastewater sources or (2) three years after the date of issuance for permits to construct treatment works or pretreatment works.
2. The construction or development of facilities covered by this permit shall be done in compliance with applicable provisions of Federal laws and regulations, the Illinois Environmental Protection Act, and Rules and Regulations adopted by the Illinois Pollution Control Board.
3. There shall be no deviations from the approved plans and specifications unless a written request for modification of the project, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.
4. The permittee shall allow any agent duly authorized by the Agency upon the presentations of credentials:
  - a. to enter at reasonable times, the permittee's premises where actual or potential effluent emission or noise source are located or where any activity is to be conducted pursuant to this permit;
  - b. to have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit;
  - c. to inspect at reasonable times, including during any hours of operation of equipment constructed or operated under this permit, such equipment or monitoring methodology or equipment required to be kept, used, operated, calibrated and maintained under this permit;
  - d. to obtain and remove at reasonable times samples of any discharge or emission of pollutants;
  - e. to obtain and remove at reasonable times and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing monitoring, or recording any activity, discharge, or emission authorized by this permit.
5. The issuance of this permit:
  - a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located;
  - b. does not release the permittee from any liability for damages to person or property caused by or resulting from construction, maintenance, or operation of the proposed facilities;
  - c. does not release the permittee from compliance with other applicable statutes and regulations of the United States, of the State of Illinois, or other applicable local laws, ordinances and regulations;
  - d. does not take into consideration or attest to structural stability of any units or parts of the project;
  - e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.
6. Unless a joint construction/operation permit has been issued, a permit for operating shall be obtained from the agency before the facility or equipment covered by this permit is placed into operation.
7. These standard conditions shall prevail unless modified by special conditions.
8. The Agency may file a complaint with the Board for suspension or revocation of a permit:
  - a. upon discovery that the permit application contained misrepresentations, misinformation or false statement or that all relevant facts were not disclosed; or
  - b. upon finding that any standard or special conditions have been violated; or
  - c. upon any violation of the Environmental Protection Act or Any Rules or Regulation effective thereunder as a result of the construction or development authorized by this permit.