

NPDES Permit No. IL0080134
Notice No. FJH:24020701.docx

Public Notice Beginning Date: June 14, 2024

Public Notice Ending Date: July 16, 2024

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:

Jackson Generation, LLC
1900 East Golf Road, Suite 1030
Schaumburg, IL 60173

Name and Address of Facility:

Jackson Energy Center
24650 South Brandon Road
Elwood, IL 60421
(Will 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 indicates 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 Francisco J. Herrera at 217/782-0610.

The applicant is proposing to operate a new natural gas-fired combined-cycle power generating facility (SIC 4911). Waste water will be generated from heat recovery steam generator (HRSG) blowdown, reverse osmosis reject water, evaporative cooler blowdown, miscellaneous plant wastewater, steam sample panel drains and stormwater. Plant operation will result in an average discharge of 0.24 MGD and maximum discharge of 0.46 MGD from outfall 001.

The following modifications are proposed:

1. The facility address has been updated to 24650 South Brandon Road.
2. Water quality based effluent limits for ammonia at Outfall 001 have been added.
3. References to the initial unit startup/commissioning of the HRSG units were removed on first asterisk on page 3 of the permit and in Special Condition 12. The facility entered initial commissioning on July 19, 2021.
4. The frequency for combined radium 226 & 228 has been changed to 2/year and Special Condition 13 has been removed.
5. Clarification on the sampling method for mercury has been added under new Special Condition 13.

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

Outfall	Receiving Stream	Latitude	Longitude	Stream Classification	Integrity Rating
001	Unnamed Tributary to Cedar Creek	41° 26' 37" North	88° 07' 05" West	General Use	Not Rated

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

The unnamed tributary to Cedar Creek, waterbody segment IL_GD, is a General Use waterbody with a 0 cfs 7Q10 flow receiving the discharge from outfall 001. The unnamed tributary to Cedar Creek is not listed on the 2020/2022 Illinois Integrated Water Quality Report and Section 303(d) List and is not biologically significant stream on the 2008 Illinois Department of Natural Resources Publication – *Integrating Multiple Taxa in a Biological Stream Rating System*. The unnamed tributary to Cedar Creek is not subject to enhanced dissolved oxygen standards.



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

Outfall 001:

PARAMETER	LOAD LIMITS lbs/day DAF (DMF)		REGULATION	CONCENTRATION LIMITS mg/l		
	30 DAY AVERAGE	DAILY MAXIMUM		30 DAY AVERAGE	DAILY MAXIMUM	REGULATION
Flow (MGD)						35 IAC 309.146
pH				6.5 to 9.0 s.u.		35 IAC 302.204
Total Suspended Solids				15	30	35 IAC 304.124
Oil and Grease				15	20	40 CFR 423.15
Total Residual Chlorine					0.05	40 CFR 125.3 & 35 IAC 302.208
Temperature				Monitor Only		35 IAC 309.146
Arsenic				Monitor Only		35 IAC 309.146
Boron				Monitor Only		35 IAC 309.146
Cadmium				Monitor Only		35 IAC 309.146
Chromium (Hexavalent, Total)				Monitor Only		35 IAC 309.146
Copper				Monitor Only		35 IAC 309.146
Iron				Monitor Only		35 IAC 309.146
Lead				Monitor Only		35 IAC 309.146
Manganese				Monitor Only		35 IAC 309.146
Mercury				Monitor Only		35 IAC 309.146
Nickel				Monitor Only		35 IAC 309.146
Zinc				Monitor Only		35 IAC 309.146
Phosphorus				Monitor Only		35 IAC 309.146
Phosphate		3.33				35 IAC 302.205 & 302.203
Combined Radium 226 & 228				Monitor Only		35 IAC 309.146
Ammonia (as N)				Weekly	Monthly	Daily Max
Mar-May, Sep-Oct				4.0	1.6	8.1
Jun-Aug				3.8	1.5	11.1
Nov-Feb					3.5	5.6

The following explain the conditions of the proposed permit:

The special conditions of the permit serve to clarify flow and pH monitoring and reporting requirements, total residual chlorine, monitoring location, discharge monitoring report submission, additives, phosphate use, stormwater, and mercury sampling method.

There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid.

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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:

Jackson Generation, LLC
1900 East Golf Road, Suite 1030
Schaumburg, IL 60173

Facility Name and Address:

Jackson Energy Center
24650 South Brandon Road
Elwood, IL 60421
(Will County)

Discharge Number and Name:

001 Quenched Heat Recovery Steam Generator Blowdown,
Reverse Osmosis Reject Water, Evaporative Cooler
Blowdown, Misc. Plant Wastewater, Steam Sample Panel
Drains and Stormwater

Receiving Waters:

Unnamed Tributary to Cedar Creek

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.

Darin E. LeCrone, P.E.
Manager, Permit Section
Division of Water Pollution Control

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Effluent Limitations and Monitoring

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

Outfall 001 – Quenched Heat Recovery Steam Generator Blowdown, Reverse Osmosis Reject Water, Evaporative Cooler Blowdown, Misc. Plant Wastewater, Steam Sample Panel Drains, and Stormwater*

(Average Flow = 0.24 MGD, Maximum Flow = 0.46 MGD)

PARAMETER	LOAD LIMITS lbs/day <u>DAF (DMF)</u>		CONCENTRATION <u>LIMITS mg/l</u>		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM		
Flow (MGD)	See Special Condition 1.				1/Month	Measure
pH	See Special Condition 2.				1/Month	Grab
Total Suspended Solids			15	30	1/Month	Grab
Oil and Grease			15	20	1/Month	Grab
Total Residual Chlorine				0.05**	1/Month	Grab
Temperature			Monitor Only		1/Month	Grab
Arsenic			Monitor Only		2/Year	Grab
Boron			Monitor Only		2/Year	Grab
Cadmium			Monitor Only		2/Year	Grab
Chromium (hexavalent, total)			Monitor Only		2/Year	Grab
Copper			Monitor Only		2/Year	Grab
Iron			Monitor Only		2/Year	Grab
Lead			Monitor Only		2/Year	Grab
Manganese			Monitor Only		2/Year	Grab
Mercury***			Monitor Only		2/Year	Grab
Nickel			Monitor Only		2/Year	Grab
Zinc			Monitor Only		2/Year	Grab
Phosphorus			Monitor Only		1/Month	Grab

*See Special Condition 5.

**See Special Condition 7.

***See Special Condition 13.

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Effluent Limitations and Monitoring

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

Outfall 001 Cont.

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			
Phosphate		3.33				1/Day*	Grab
Combined Radium 226 & 228			Monitor Only			2/Year	Grab
Ammonia (as N)			Weekly	Monthly	Daily Max	1/Month	Grab
Mar-May, Sep-Oct			4.0	1.6	8.1		
Jun-Aug			3.8	1.5	11.1		
Nov-Feb				3.5	5.6		

*Sampling shall be required only when phosphate based additives are used during periods of time when there are chemistry upsets that require phosphate-based treatment to maintain boiler pH. Phosphate usage or non-usage shall be indicated on monthly DMRs.

Special Conditions

SPECIAL CONDITION 1. Flow shall be measured in units of Million Gallons per Day and reported as a monthly average and a daily maximum on the discharge monitoring report.

SPECIAL CONDITION 2. The pH shall be in the range 6.5 to 9.0. The monthly minimum and monthly maximum values shall be reported on the DMR form.

SPECIAL CONDITION 3. The Permittee shall record monitoring results on Discharge Monitoring Report (DMR) electronic 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 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://epa.illinois.gov/topics/water-quality/surface-water/netdmr/quick-answer-guide.html>.

The completed Discharge Monitoring Report forms shall be submitted to IEPA no later than the 25th day of the following month, unless otherwise specified by the permitting authority.

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
Division of Water Pollution Control
Attention: Compliance Assurance Section, Mail Code # 19
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

SPECIAL CONDITION 4. 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 5. The Agency has determined that the effluent limitations in this permit constitute BAT/BCT for storm water which is treated in the existing treatment facilities for purposes of this permit issuance, and no pollution prevention plan will be required for such storm water. In addition to the chemical specific monitoring required elsewhere in this permit, the permittee shall conduct an annual inspection of the facility site to identify areas contributing to a storm water discharge associated with industrial activity, and determine whether any facility modifications have occurred which result in previously-treated storm water discharges no longer receiving treatment. If any such discharges are identified the permittee shall request a modification of this permit within 30 days after the inspection. Records of the annual inspection shall be retained by the permittee for the term of this permit and be made available to the Agency on request.

SPECIAL CONDITION 6. In addition to other requirements of this permit, no effluent shall contain settleable solids, floating debris, visible oil, grease, scum, or sludge solids. Color, odor, and turbidity shall be reduced to below obvious levels.

SPECIAL CONDITION 7. 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 8. There shall be no discharge of polychlorinated biphenyl compounds.

SPECIAL CONDITION 9. The use of any new additives, or change in those previously approved by the Agency, or if the permittee increases the feed rate or quantity of the additives used beyond what has been approved by the Agency, the permittee shall request a modification of this permit in accordance with the Standard Conditions – Attachment H

SPECIAL CONDITION 10. 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 11. The effluent, alone or in combination with other sources, shall not cause a violation of any applicable water quality standard outlined in 35 Ill. Adm. Code 302.

Special Conditions

SPECIAL CONDITION 12. The permittee agrees to use a non-phosphate based treatment system for chemistry control in the feedwater cycle (HRSG Blowdown) during normal operation of the unit. Normal operation would not include periods of time when the non-phosphate treatment is ineffective. The permittee also agrees to use a non-phosphate based RO-antiscalant. Phosphate-based treatment would be permissible during periods of time when there are chemistry upsets that require phosphate-based treatment to maintain boiler water pH. During these periods, total phosphate discharge should not exceed 3.33 lbs/day.

SPECIAL CONDITION 13. All samples for mercury must be analyzed by EPA Method 1631E using the digestion procedure described in Section 11.1.1.2 of 1631E, which dictates that samples must be heated at 50°C for 6 hours in a bromine chloride (BrCl) solution in closed vessels.