

NPDES Permit No. IL0002241  
Notice No. MEL:25031201.docx

Public Notice Beginning Date: December 31, 2025

Public Notice Ending Date: January 30, 2026

National Pollutant Discharge Elimination System (NPDES)  
Permit Program

Draft Modified 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  
2520 West Iles Avenue  
Post Office Box 19276  
Springfield, Illinois 62794-9276  
217/782-0610

Name and Address of Discharger:

Kincaid Generation, LLC  
Post Office Box 260  
Kincaid, Illinois 62540

Name and Address of Facility:

Kincaid Generation, LLC  
Kincaid Generation Station  
4 Miles West of Kincaid on route 104  
Kincaid, Illinois 62540  
(Christian 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 steam electric generating station (SIC 4911). The station operates two cyclone fire wet bottom boilers to supply steam to two generating units rated at 118- MW combined. The station withdraws water from the 1377 acre cooling, conditioning boiler feed water, backwashing the condenser cooling water intake screens, sanitary, chemical and non-chemical cleaning of plant equipment, ash handling, and precipitation which contacts the site.

Plant operations result in an average discharge of 865 MGD of condenser cooling water, house service water, and boiler drains from outfall 001, 6.178 MGD of wastewater treatment plant effluent from outfall B01, 0.021 MGD of sewage treatment plant effluent from outfall C01, 0.162 MGD of demineralizer regenerant wastes from D01, intermittent discharge of ash sluice water recycle system emergency overflow from E01, an intermittent discharge of switchyard area runoff from F01, an intermittent discharge of non-chemical

metal cleaning wastes from H01, 2.16 MGD of ponded free liquids, subsurface free liquids, and stormwater from outfall I01, an intermittent discharge of intake screen backwash from 002, an intermittent discharge of east conveyer belt area runoff from 008, an intermittent discharge of west conveyer belt area runoff from outfall 009.

Modification: Outfall I01 has been added to the permit as an internal outfall for the new discharges of ponded free liquids, subsurface free liquids, and stormwater which then mix with other discharges and ultimately discharge through outfall 001.

Application is made for new and existing discharge(s) which are located in Christian 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 Sangchris	39° 35' 35"	North 89° 29' 14" West	General Use	Not Rated
002	Lake Sangchris	39° 35' 34"	North 89° 29' 51" West	General Use	Not Rated
008	Lake Sangchris	39° 35' 21"	North 89° 30' 18" West	General Use	Not Rated
009	Lake Sangchris	39° 35' 21"	North 89° 30' 18" West	General Use	Not Rated

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

The waterbody segment REB receiving the discharge from outfall(s) 001, 002, 007, 008, 009, and 010 is on the draft 2024 Illinois Integrated Water Quality Report and Section 303(d) List. The receiving water has not been given an integrity rating or been listed as biologically significant in the 2008 Illinois Department of Natural Resources publication *Integrating Multiple Taxa in a Biological Stream Rating System*. The impaired designated uses and pollutants causing impairment are tabulated below:

Designated Uses	Pollutants Causing Impairment
Aesthetic Quality Fish Consumption	Phosphorus, Total Suspended Solids, Aquatic Plants (Macrophytes) Mercury

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

Outfall: 001: Condenser Cooling Water, House Service Water and Boiler Drains (DAF = 865 MGD)

PARAMETER	LOAD LIMITS lbs/day		REGULATION	CONCENTRATION LIMITS mg/l		REGULATION
	30 DAY AVERAGE	DAILY MAXIMUM		30 DAY AVERAGE	DAILY MAXIMUM	
Flow (MGD)						35 IAC 309.146
pH					6.5-9.0	35 IAC 302.204
Temperature						35 IAC 303.502
Total Residual Chlorine					0.05	40 CFR 125.3
Outfall B01: Wastewater Treatment Plant Effluent (DAF = 6.178 MGD)						
Flow (MGD)						35 IAC 309.146
Total Suspended Solids				15	30	35 IAC 304.124
Oil and Grease				15	20	40 CFR 423.12(b)(3)

PARAMETER	LOAD LIMITS lbs/day DAF (DMF)		REGULATION	CONCENTRATION LIMITS mg/l		REGULATION
	30 DAY AVERAGE	DAILY MAXIMUM		30 DAY AVERAGE	DAILY MAXIMUM	
Outfall C01: Sewage Plant Effluent (DAF = 0.021 MGD)						
Flow (MGD)						35 IAC 309.146
Total Suspended Solids				30	60	35 IAC 304.120(a)
BOD <sub>5</sub>				30	60	35 IAC 304.120(a)
Total Residual Chlorine					0.05	40 CFR 125.3
Fecal Coliform						35 IAC 304.121
Outfall D01: Demineralizer Regenerant Wastes (DAF = 0.162 MGD)						
Flow (MGD)						35 IAC 309.146
Total Suspended Solids				15	30	35 IAC 304.124
Oil and Grease				15	20	40 CFR 423.12(b)(3)
Outfall E01: Ash Sluice Water Recycle System Emergency Overflow (Intermittent Discharge)						
Flow (MGD)						35 IAC 309.146
Total Suspended Solids				15	30	35 IAC 304.124
Oil and Grease				15	20	40 CFR 423.12(b)(3)
Outfall F01: Switchyard Area Runoff (Intermittent Discharge)						
Flow						35 IAC 309.146
Stormwater Pollution Prevention Plan						40 CFR 122.26(b)(14)(vii)
Outfall H01: Non-Chemical Metal Cleaning Wastes (Intermittent Discharge)						
Flow (MGD)						35 IAC 309.146
Total Suspended Solids				30	100	40 CFR 423.12(b)(5)
Oil and Grease				15	20	40 CFR 423.12(b)(5)
Iron				1.0	1.0	40 CFR 423.12(b)(5)
Copper				1.0	1.0	40 CFR 423.12(b)(5)
Outfall I01: Poned Free Liquids, Subsurface Free Liquid, and Stormwater from Kincaid Ash Pond						
Flow (MGD)						35 IAC 309.146
Total Suspended Solids				15	30	35 IAC 304.124
Oil and Grease				15	20	40 CFR 423.12(b)(3)

Outfall 002: Intake Screen Backwash (Intermittent Discharge)

Flow (MGD)

35 IAC 309.146

Stormwater Pollution Prevention Plan

40 CFR 122.26(b)(14)(vii)

Outfalls: 008 East M3 Conveyer Belt Area Runoff (Intermittent Discharge)

009 West M3 Conveyer Belt Area Runoff (Intermittent Discharge)

Flow (MGD)

35 IAC 309.146

Stormwater Pollution Prevention Plan

40 CFR 122.26(b)(14)(vii)

The following explain the conditions of the draft permit:

The Special Conditions clarify flow measurement and reporting, pH, temperature, TRC, monitoring location, DMR's, usage of water treatment additives, re-opener, operator requirement, intake structure submittal, PCB's, upset and bypass, metal monitoring, mercury monitoring, and stormwater pollution prevention plan requirements.

The best available technology (BAT) of Steam Electric Effluent Limitation Guidelines are applicable to the sluices bottom ash, economizer ash, and air heater ashes from Kincaid Generation Station discharges to the sanitary sewer. The 2015 rule required the permittee to comply with the effluent limitations "as soon as possible" after November 1, 2018, and no later than December 31, 2023. The permittee shall comply with revised regulations for the Steam Electric Power Generating category (40 CFR Part 423) which is effective on December 14, 2020.

The facility 316(b) demonstration was public noticed in the 2021 renewal of this permit.

The discharge of Poned Free Liquids, Subsurface Free Liquid and Stormwater from the Kincaid Ash Pond is being added to the permit to facilitate the eventual closure of the plant in 2027. The antidegradation assessment for these new discharges is listed below:

**Kincaid Generation LLC - Kinkaid Station-- Antidegradation Assessment**

**NPDES Permit No. IL0002241 (Williamson County)**

**Bureau ID# W0218140002 16A**

The subject facility is proposing to add discharge of subsurface and ponded free liquid from the Kincaid Power Plant Ash Pond through Outfall 001 in order to help close the CCR impoundment in accordance with 35 IAC 845.

The Kincaid Power Plant (Facility) is a 1,108-megawatt, two-unit, coal-fueled electric generating station located near Kincaid, Illinois. The Facility withdraws water from the 2,325-acre cooling lake (Sangchris Lake) for condenser cooling and house service water. Wastewater is generated through once-through condenser cooling; conditioning boiler feed water; backwashing the condenser cooling water intake screens; sanitary, chemical and non-chemical cleaning of Facility equipment; ash handling, and storm water runoff. Warmed cooling water is returned to Sangchris Lake via a 3,700-foot-long, approximately 130-foot-wide discharge canal that empties into the center arm of the lake via Outfall 001. The discharge canal is not classified by the Illinois Environmental Protection Agency (IEPA) as a water of the State.

Both generating units combine discharge flow into one common pipe tunnel, which then directs flow into the discharge canal. The Facility includes a coal combustion residuals (CCR) unit, the Kincaid Ash Pond (KAP), which the Facility utilizes to manage sluiced bottom ash, economizer ash, air heater ash, and non-CCR wastewaters.

The KAP currently contains approximately 2,949,000 cubic yards (CY) of CCR. Approximately 195,000 CY of additional bottom ash will be generated between the end of 2021 and the time CCR generation ceases at the KPP on November 30, 2027, resulting in a maximum CCR capacity of approximately 3,129,000 CY.

The KAP currently contains approximately 54.8 million gallons of ponded free liquids.

A majority of the water discharged to the KAP is recycled back to the generating plant. Fly ash that is beneficially used offsite is not deposited in the KAP. Bottom ash deposited in the KAP is handled dry and beneficially used offsite. The 172-acre KAP was constructed in 1964-1965 and put into service in 1967.

The various non-CCR wastewaters routed to the KAP originate from the West Area Runoff Basin, which collects flows from coal pile runoff, the tunnel groundwater sump, slag tank cooling water, intake pump house sump, ammonia storage tank sump, building low volume wastewater, condensate storage area and overflows, station basement sumps, and other storm water sources. The KAP also receives boiler wash water during maintenance outage events. The remaining impoundments onsite (East Area Runoff Basins, West Area Runoff Basin, the Equalization Basins, and the Standby Pond) are not authorized to receive the CCR sluice flows and are not large enough to independently treat the total volume of the plant process water flows.

In support of CCR impoundment closure requirements, per the federal CCR Rule (40 Code of Federal Regulations [CFR] 257 Subtitle D and 35 Illinois Administrative Code (IAC) §845, Kincaid Generation, LLC intends to submit a request to modify National Pollutant Discharge Elimination System (NPDES) Permit No. IL0002241 to discharge two new contributory wastewater streams via existing Outfall 001 to Sangchris Lake during dewatering of the KAP.

The information in this antidegradation assessment came from the May 1, 2023 antidegradation report by Burns & McDonnell Engineering Company, Inc. titled "Antidegradation Assessment for the Kincaid Power Plant".

#### **Identification and Characterization of the Affected Water Body.**

The subject facility discharges to Sangchris Lake at a point where 0 cfs of flow exists upstream of the outfall during critical 7Q10 low-flow conditions. The facility has a DAF of 73.5 MGD. Sangchris Lake is classified as a General Use Water. Sangchris Lake is not listed as a biologically significant stream in the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System*, nor is it given an integrity rating in that document. Sangchris Lake, Waterbody Segment, IL\_REB, is listed on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for aesthetic quality use with potential causes given as algae, aquatic plants, total phosphorus, and total suspended solids, and fish consumption use with potential cause given as mercury. Aquatic life use is fully supported. This segment of Sangchris Lake is not subject to enhanced dissolved oxygen standards.

#### **Identification of Proposed Pollutant Load Increases or Potential Impacts on Uses.**

Dewatering of the KAP will be conducted in four phases - Phase 1 through Phase 4. Because the KAP operates as a closed-loop system and closure activities will be conducted while the Facility is still operational, a temporary operating pool (TOP) will be constructed in the southeastern corner of the KAP, using sheet pile or other vertical hydraulic barrier system, to support continued plant operations during closure. During closure activities, ponded and subsurface free liquids will be transferred to the TOP prior to discharge.

During the initial phase of dewatering, the Facility will be in operation, ponded free liquids within the TOP will be discharged to the discharge canal, and ponded free liquids outside of the TOP will be transferred into the TOP and subsequently discharged to the discharge canal. TOP discharges will occur at a maximum rate of approximately 1,500 pm (2.16 MGD). The anticipated duration of this initial dewatering phase is approximately 6 months. During this stage of KAP closure and dewatering, water discharged to the TOP and to the discharge canal is assumed to reflect the ponded free liquids characteristics. Some subsurface free liquids seepage will be recovered and discharged to the TOP as the surface water elevation within the KAP is lowered; however, for the purposes of the antidegradation assessment, the discharge water quality during this period is assumed to be representative of ponded free liquids sampling results. The total volumes and sources of liquids discharged from TOP during Phase 1 are as follows:

- Ponded free liquids - 54.8 million gallons
- Stormwater (conservatively assumed to have characteristics matching the ponded free liquids sample results) - 70.1 million gallons

The 2.16 MGD of water discharged from the TOP will mix in the discharge canal with the 780 MGD condenser cooling water discharge, prior to discharging to Sangchris Lake via Outfall 001. The concentrations of constituents in the blended Outfall 001 discharge were less than the General Effluent Standards (35 IAC §304), and less than the chronic General Use Water Quality Standards (35 IAC §302 Subpart B).

In the event of a WWTP upset or large storm event, it may be necessary for West Area Runoff Basin discharges to be temporarily routed to the TOP.

During the second phase of dewatering, the Facility will be in operation and ponded free liquids and subsurface free liquids will be transferred into the TOP and subsequently discharged to the discharge canal. TOP discharges will continue to occur at a maximum rate of approximately 1,500 gpm (2.16 MGD). The anticipated duration of this initial dewatering phase is approximately 20 months. During this stage of KAP closure and dewatering, water discharged to the TOP and to the discharge canal is assumed to consist of water representative of both the ponded and subsurface free liquids sampling results. The 2.16 MGD of water discharged to the discharge canal is assumed to be comprised of 1.73 MGD of stormwater (conservatively assumed to have characteristics matching the ponded free liquids sample results) and 0.43 MGD of subsurface free liquids. The total volumes and sources of liquids discharged from TOP during Phase 2 are as follows:

- Stormwater - 234 million gallons
- Subsurface free liquids - 46.2 million gallons

The ratio of subsurface free liquids to stormwater, and hence the water quality, in the TOP discharge will vary over time based on precipitation levels. However, the assumption that the ponded free liquids sample results are representative of stormwater discharged from the TOP is considered conservative because West Basin Runoff Basin discharges were routed to the KAP at the time the ponded free liquids samples were collected. West Area Runoff Basin discharges will be re-routed to the WWTP prior to the start of KAP closure activities, reducing the pollutant load to the KAP.

The 2.16 MGD discharged from the TOP will mix in the discharge canal with the 780 MGD condenser cooling water discharge, prior to discharging to Sangchris Lake via Outfall 001. The concentrations of constituents in the blended Outfall 001 discharge are less than the General Effluent Standards (35 IAC §304), and less than the chronic General Use Water Quality Standards (35 IAC §302 Subpart B).

During the third phase of dewatering, the Facility will not be in operation and ponded free liquids and subsurface free liquids will be transferred into the TOP and subsequently discharged to the discharge canal. TOP discharges will continue to occur at a maximum rate of approximately 1,500 gpm (2.16 MGD). The anticipated duration of this initial dewatering phase is approximately 11 months. During this stage of KAP closure and dewatering, water discharged to the TOP and to the discharge canal is assumed to consist of water representative of both the ponded and subsurface free liquids sampling results. The 2.16 MGD of water discharged to the discharge canal is assumed to be comprised of 1.95 MGD of stormwater (conservatively assumed to have characteristics matching the ponded free liquids sample results) and 0.21 MGD of subsurface free liquids. The total volumes and sources of liquids discharged from TOP during Phase 3 are as follows:

- Stormwater - 128 million gallons
- Subsurface free liquids - 12.3 million gallons

The ratio of subsurface free liquids to stormwater, and hence the water quality, in the TOP discharge will vary over time based on precipitation levels. However, the assumption that the ponded free liquids sample results are representative of stormwater discharged from the TOP is considered conservative because West Area Runoff Basin discharges were routed to the KAP at the time the ponded free liquids samples were collected.

Because the Facility will be retired during this phase, the 2.16 MGD of TOP discharge will not mix with the condenser cooling water discharge prior to discharging to Sangchris Lake via Outfall 001. The concentrations of constituents in the blended Outfall 001 discharge were less than the chronic General Use Water Quality Standards (35 IAC §302 Subpart B), and less than the General Effluent Standards (35 IAC §304), except for TSS.

Although the blended concentrations of the ponded free liquids and subsurface free liquids show the potential to exceed water quality standards for TSS, the overall pollutant load to the receiving water will be greatly reduced with the cessation of the 780 MG non-contact condenser cooling water discharge through Outfall 001 (see lake loading reduction calculations provided in Table B-6). Additionally, dewatering activities are temporary and once completed and the Facility will have already ceased operations. For these reasons, it has been determined that the pond dewatering activities will not adversely affect the receiving waters.

During the final phase of dewatering, the Facility will not be in operation and ponded free liquids and subsurface free liquids will be transferred into the TOP and subsequently discharged to the discharge canal. TOP discharges will continue to occur at a maximum rate of approximately 1,500 pm (2.16 MGD). The anticipated duration of this initial dewatering phase is approximately 5 months. During this stage of KAP closure and dewatering, water discharged to the TOP and to the discharge canal is assumed to be representative of both ponded and subsurface free liquids sampling results. The 2.16 MGD of water discharged to the discharge canal is assumed to be comprised of 1.76 MGD stormwater (conservatively assumed to have characteristics matching the ponded free liquids sample results) and 0.09 MGD of subsurface free liquids, and 0.31 MGD of the TOP contents (water quality assumed to be equivalent to the Phase 3 blended discharge quality). The total volumes and sources of liquids discharged from TOP during Phase 4 are as follows:

- Stormwater - 58.4 million gallons
- Subsurface free liquids - 3.08 million gallons
- Contents of the TOP - 10.1 million gallons

The ratio of subsurface free liquids to stormwater, and hence the water quality, in the TOP discharge will vary over time based on precipitation levels. However, the assumption that the ponded free liquids sample results are representative of stormwater discharged from the TOP is considered conservative because West Area Runoff Basin discharges were routed to the KAP at the time the ponded free liquids samples were collected.

Because the Facility will be retired during this phase, the 2.16 MGD of TOP discharge will not mix with the condenser cooling water discharge prior to discharging to Sangchris Lake via Outfall 001. The concentrations of constituents in the blended Outfall 001 discharge were less than the chronic General Use Water Quality Standards (35 IAC §302 Subpart B, and less than the General Effluent Standards (35 IAC §304), except for TSS.

It has been determined that the pond dewatering activities will not adversely affect the receiving waters.

#### **Fate and Effect of Parameters Proposed for Increased Loading.**

Tables B-2 and B-3 in Appendix B of the May, 2023 report by Burns & McDonnell show analyte concentrations in ponded and subsurface free liquids samples, respectively. Tables B-4 and B-5 of report by Burns & McDonnell illustrates that discharging ponded free liquids to Sangchris Lake during Phases 1 and 2 causes negligible increases in lake pollutant concentrations and no exceedance of the chronic General Use Water

Quality Standards (35 IAC §302 Subpart B) or the General Effluent Standards (35 IAC §304). Likewise, the mass balance calculations in Tables B-4 and B-5 report by Burns & McDonnell illustrate that discharging the ponded and subsurface free liquids to Sangchris Lake causes negligible increases in lake pollutant concentrations and no exceedance of the chronic General Use Water Quality Standards (35 IAC §302 Subpart B), and no exceedance of the General Effluent Standards (35 IAC §304).

As shown in Table B-6 and B-7 report by Burns & McDonnell, the concentrations of constituents in the blended pond discharges through Outfall 001 during Phases 3 and 4 were less than the chronic General Use Water Quality Standards (35 IAC §302 Subpart B), and less than the General Effluent Standards (35 IAC §304), except for TSS. However, the removal of the condenser cooling waters from discharge significantly decreases the pollutant load to Sangchris Lake providing an overall net benefit to the receiving water body. In addition, settling will occur within the TOP and the discharge canal, reducing TSS concentrations prior to discharge through Outfall 001. It is expected that after settling, Phases 3 and 4 discharges will meet the General Effluent Standards for TSS.

Iron (Dissolved) and Nickel limits will be set at the water quality standards.

#### **Purpose and Social & Economic Benefits of the Proposed Activity.**

The KAP is currently active and generally operates as a closed loop system. The KAP emergency overflow (Outfall E01) has been used once within the last NPDES Permit cycle, and bottom ash sluice recycle system blowdown is occasionally manually discharged through Outfall BO1 to maintain the pond level. KAP water is discharged to Sangchris Lake via common Outfall 001 with metal cleaning wastes, treated sanitary wastewater, demineralizer regenerant waste, wastewater treatment plant effluent, and switchyard area runoff. Due to the large volume of water contained in the KAP and schedule constraints dictated by the federal CCR Rule, Kincaid Generation, LLC is planning to start KAP closure work by April 17, 2025. The two boilers will cease coal-fired operation no later than July 17, 2027, and the Facility will cease placing waste streams into the KAP by September 17, 2027, in order for closure to be completed by the October 17, 2028 deadline for CCR pond closure in accordance with 40 CFR § 257.103(5)(2). Following the retirement of the boilers (and cessation of ash sluice operations), the only flows into and out of the KAP will be from direct rainfall, non-contact storm water runoff, and evaporation.

The two new contributory wastewater streams proposed for discharge during dewatering of the KAP consist of ponded free liquids and subsurface free liquids stored within the CCR impoundment. The estimated volume of ponded free liquids and subsurface free liquids to be discharged through Outfall 001 is approximately 54,800,000 gallons and 61,600,000 gallons, respectively.

Once dewatering is complete, the KAP will be closed by constructing a final cover system comprised of a geomembrane, geotextile, cover soil, and vegetated topsoil in accordance with 35 IAC Part 845. This activity will benefit the surrounding community by closing the CCR surface impoundment and discontinuing the discharge of water that has been in contact with bottom ash, economizer ash, air heater ash, and non-CCR wastewaters.

#### **Assessments of Alternatives for Less Increase in Loading or Minimal Environmental Degradation.**

IPGC and Burns & McDonnell have considered pond water management alternatives that could avoid or minimize an increase in pollutant loading to Sangchris Lake. In addition to assessment of potential degradation of Sangchris Lake that could result from the dewatering discharges, an important criterion used in the alternatives assessment is the reliability of the time required to remove the water from the Primary KAP. The ponded and subsurface free liquids must be removed within a limited timeframe to enable the regulatory-driven CC closure construction activities. The following alternatives were evaluated for disposal of the impounded water in the Primary KAP

##### **Evaporation**

Natural evaporation rates of the ponded free liquids would be dependent upon many factors, including water volume and chemistry, surface area of ponded free liquids, ambient temperature and humidity, solar radiation, wind, and free flow of air over the pond. Evaporation could occur only in the warmer months, between approximately April and October, with the most efficient evaporation occurring in mid-summer.

It is unlikely that ideal evaporation conditions would occur for enough duration to eliminate the total 983 million gallons of ponded and subsurface free liquids. The unpredictability of weather and variations in evaporation rates make this alternative infeasible to comply with the CCR closure timeframe.

Mechanical evaporation of the impounded liquids was also considered. This would require a very power intensive process utilizing multiple falling film evaporators to create a concentrated brine, which would then be sent through forced circulation crystallizers to create a landfillable product. To mechanically evaporate this volume of liquids in a reasonable timeframe to allow the start of pond closure activities, the capital expense would be significant, and the power requirements would be costly and very difficult to accommodate. This system would require a discharge of the high-quality distillate produced in the evaporation process as well as hauling of the salt product from the crystallizer to a landfill

##### **Agricultural Irrigation**

Agricultural irrigation was also evaluated to dispose of the pond liquids. Since the purpose of the irrigation would be to remove the impounded

liquids, it is likely that water would be applied at higher rates than desired for crop growth, resulting in damaged crop or diminished yields. The crop fields immediately adjacent to the Primary KAP are too small of an area to dispose of approximately 983 million gallons of water. Transporting the pond liquids to more distant agricultural fields would require a lengthy pipeline being installed beneath surface water bodies. The technical obstacles and unpredictability of the weather and infiltration rates make this alternative infeasible for the proposed short-term discharge.

Additionally, it is likely that IPGC would have to compensate the farmers for at least one season of crops.

#### Use Impounded Liquids in Power Generation Plant Processes

The Facility uses an intake structure on Sangchris Lake to supply once-through cooling water for the power plant as well as other miscellaneous water users. The cooling water and each water user ultimately discharge back to Sangchris Lake via multiple outfalls. Without a source of water evaporation onsite (such as a flue gas desulfurization (FGD) scrubber system or a cooling tower), there are no Facility processes that the pond liquids could be sent to for use/elimination without subsequent discharge to Sangchris Lake.

#### Direct Discharge with Additional Treatment

While the addition of ponded and subsurface free liquids to Sangchris Lake would cause only minimal increases in lake pollutant concentrations and no exceedance of water quality standards, there are additional treatment technologies which could further reduce pollutant loading prior to discharge to Sangchris Lake. Wastewater pretreatment processes could be installed upstream of the outfall (e.g., oxidation, precipitation, coagulation, flocculation) to further reduce solids and the dissolved concentrations of certain pollutants, such as iron. Additional media filtration could also allow removal of mercury to low levels. Samples of the ponded and subsurface free liquids showed low concentrations of selenium, so biological treatment was not considered.

Specialized adsorption processes or reverse osmosis could be utilized in addition to the pretreatment processes to reduce the concentration of additional parameters, including sulfates and boron. However, these technologies are expensive and generate waste streams that must be disposed of or treated.

#### No-Build Alternative

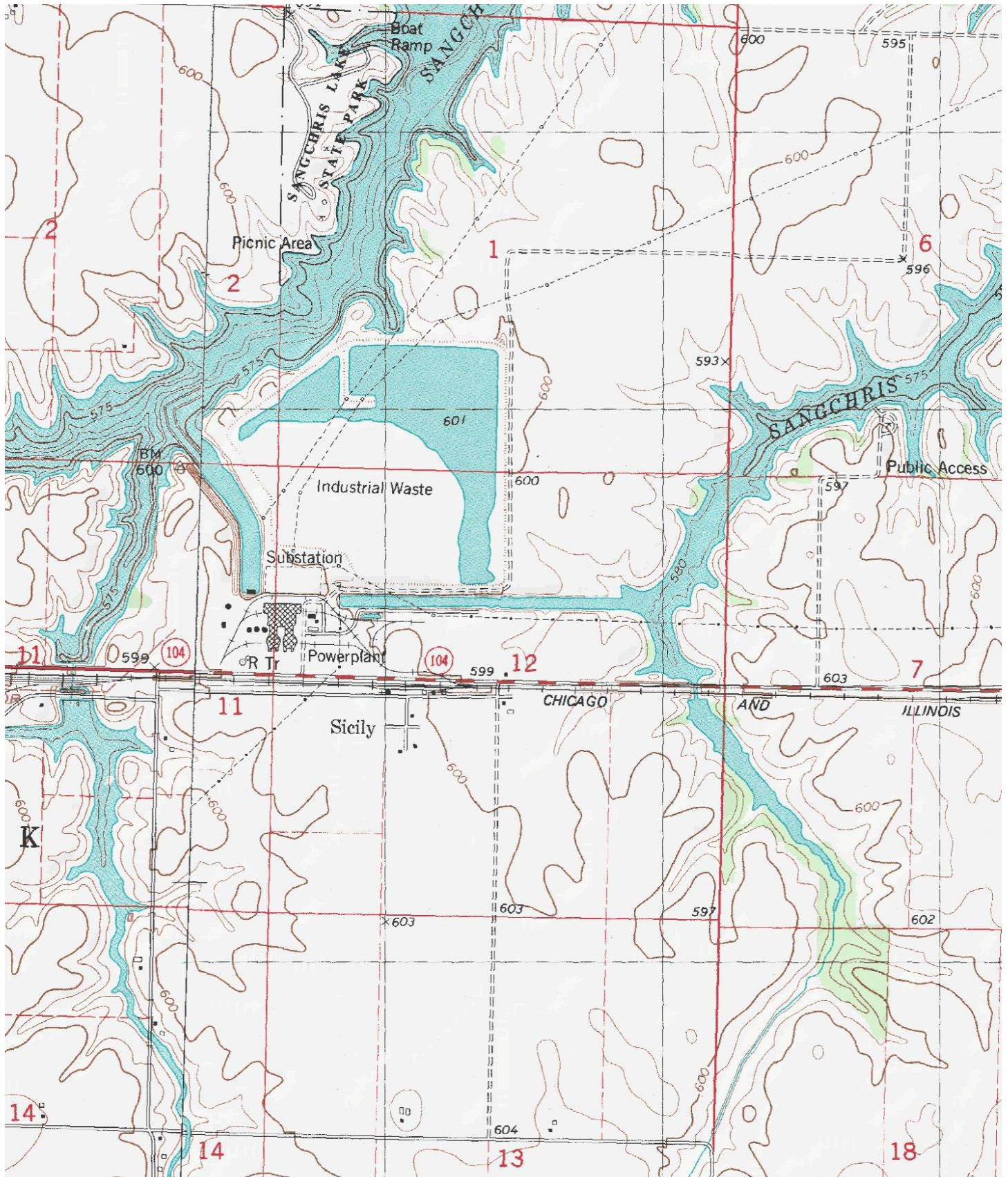
The no-build alternative would not impact any waters of the U.S., and surface water conditions would continue as is. The no-build alternative is not practicable because it does not achieve the CCR Rule requirements for CCR impoundment closure.

#### **Summary Comments of the Illinois Department of Natural Resources, Regional Planning Commissions, Zoning Boards or Other Entities.**

On October 13, 2021, the IDNR EcoCAT web-based tool was used (IDNR Project Number: 2206205) and indicated that there were no endangered/threatened species present in the vicinity of the discharge. The IDNR EcoCAT web-based tool terminated the consultation.

#### **Agency Conclusion.**

This preliminary assessment was conducted pursuant to the Illinois Pollution Control Board regulation for Antidegradation found at 35 Ill. Adm. Code 302.105 (antidegradation standard) and was based on the information available to the Agency at the time the draft permit was written. We tentatively find that the proposed activity will result in the attainment of water quality standards; that all existing uses of the receiving stream will be maintained; that all technically and economically reasonable measures to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed activity; and that this activity will benefit the community at large by removing of open water from the Kincaid Ash Pond and completing the plant closure construction activities.. Comments received during the NPDES permit public notice period will be evaluated before a final decision is made by the Agency.



Public Notice of Draft Permit

Public Notice Number MEL:25031201.docx is hereby given by Illinois EPA, Division of Water Pollution Control, Permit Section, 2520 West Iles Avenue, Post Office Box 19276, Springfield, Illinois 62794-9276 (herein Agency) that a modified draft National Pollutant Discharge Elimination System (NPDES) Permit Number IL0002241 has been prepared under 40 CFR 124.6(d) for Kincaid Generation L.L.C., Post Office Box 260, Kincaid, Illinois 62540 for discharge into Lake Sangchris from the Kincaid Generating Station, 4 miles West of Kincaid on Route 104, (Christian County).

The applicant is engaged operation of a steam electric generating station (SIC 4911). The station operates two cyclone fire wet bottom boilers to supply steam to two generating units rated at 1180 MW combined. The station withdraws water from the 1377 acre cooling pond (Lake Sangchris) for condenser cooling and house service water. Wastewater is generated from once-through condenser cooling, conditioning boiler feed water, backwashing the condenser cooling water intake screens, sanitary, chemical and non-chemical cleaning of plant equipment, ash handling, and precipitation which contacts the site. New discharges of ponded and subsurface free liquids are being added to the permit to facilitate the eventually closure of the plant in 2027.

Plant operations result in an average discharge of 865 MGD of condenser cooling water, house service water, and boiler drains from outfall 001, 6.178 MGD of wastewater treatment plant effluent from outfall B01, 0.021 MGD of sewage treatment plant effluent from outfall C01, 0.162 MGD of demineralizer regenerant wastes from D01, intermittent discharge of ash sluice water recycle system emergency overflow from E01, an intermittent discharge of non-chemical metal cleaning wastes from H01, an intermittent discharge of intake screen backwash from 002, an intermittent discharge of east conveyer belt area runoff from 008, an intermittent discharge of west conveyer belt area runoff from 009.

The application, draft permit and other documents are available for inspection and may be copied at the Agency between 9:30 a.m. and 3:30 p.m. Monday through Friday. A Fact Sheet containing more detailed information is available at no charge. For further information, call the Public Notice Clerk at 217/782-0610.

Interested persons are invited to submit written comments on the draft permit to the Agency at the above address. The NPDES Permit and Joint Public Notice numbers must appear on each comment page. All comments received by the Agency not later than 30 days from the date of this publication shall be considered in making the final decision regarding permit issuance.

Any interested person may submit written request for a public hearing on the draft.

If written comments and/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 30 days before any public hearing

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NPDES Permit No. IL0002241

Illinois Environmental Protection Agency

Division of Water Pollution Control

2520 West Iles Avenue

Post Office Box 19276

Springfield, Illinois 62794-9276

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Modified (NPDES) Permit

Expiration Date: August 31, 2026

Effective Date: September 1, 2021

Modification Date:

Name and Address of Permittee:

Facility Name and Address:

Kincaid Generation, LLC  
Post Office Box 260  
Kincaid, Illinois 62540

Kincaid Generation, LLC  
Post Office Box 260  
Kincaid, Illinois 62540  
(Christian County)

Discharge Number and Name:

Receiving Waters:

001 Condenser Cooling Water, House Service Water, and Boiler Drains  
C01 Sewage Treatment Plant Effluent  
D01 Demineralizer Regenerant Wastes  
E01 Ash Sluice Water Recycle System Emergency Overflow  
F01 Switchyard Area Runoff  
H01 Metal Cleaning Wastes  
I01 Poned Free Liquids, Subsurface Free Liquids, Stormwater  
002 Intake Screen Backwash  
008 East M2 Conveyer Belt Area Runoff  
009 West M2 Conveyer Belt Area Runoff

Lake Sangchris  
Lake Sangchris  
Lake Sangchris  
Lake Sangchris

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

NPDES Permit No. IL0002241

Effluent Limitations and Monitoring

1. From the modification 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 – Condenser Cooling Water, House Service Water, and Boiler Drains (DAF = 865 MGD)

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		
The Discharges Consist of:						
1. Condenser Cooling Water			790 MGD			
2. House Service Water			70 MGD			
3. Equalization Basin Sump Discharge			0.063 MGD			
4. Wastewater Treatment Plant Effluent			4.65 MGD			
5. Sewage Treatment Plant Effluent			0.021 MGD			
6. Switchyard Oil/Water Separator			Intermittent			
7. Demineralizer Regenerant Wastes			0.0162 MGD			
8. Ash Sluice Water Recycle System Emergency Overflow			Intermittent			
9. Boiler Drains			0.03 MGD			
10. Switchyard Area Runoff			Intermittent			
11. Poned Free Liquids, Subsurface Free Liquids, and Stormwater from Kincaid Ash Pond			2.16 MGD			
Flow (MGD)	See Special Condition 1				Daily	Continuous
pH	See Special Condition 2				2/Month	Grab
Temperature	See Special Condition 3				Daily	Continuous
Total Residual Chlorine*	See Special Condition 4			0.05	Daily	Grab

\*Total Residual Chlorine shall be sampled daily whenever chlorination or biocide addition is being performed at the main condensers or residuals are likely to be present in the discharge. If chlorination and biocide addition are not used during the month it shall be so indicated on the DMR.

NPDES Permit No. IL0002241

Effluent Limitations and Monitoring

1. From the modification 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 B01: Wastewater Treatment Plant Effluent (DAF = 6.178 MGD)

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		
This Discharge Consists of: 1. Ash Sluice Water Recycle System 2. Water Treatment Plant Floor Drains 3. Station Basement and Condensate Storage Area Sumps 4. Boiler Sample Drains 5. Auxiliary Boiler Blowdown 6. East Area Runoff Basins a. East Station Area Stormwater Runoff b. Ash Sluice Recycle Water Strainer Backwash c. Boiler Drains (alternate route) d. Main Oil/Water Separator i. Main and Auxiliary Transformer Area Runoff ii. Turbine Oil Pit Drains iii. Turbine Room Floor Drains iv. Boiler Fan Area Floor Drains e. Oil/Water Separator No. 1 i. Turbine Room Pump ii. D.C. Heater Drains iii. Condensate Polisher Backwash (alternate route) iv. Water Treatment Plant Drains (alternate route) v. Water Treatment Plant Filter Backwashes (alternate route) f. Continuous Mercury Monitoring System Condensate 7. West Area Runoff Basins a. Tunnel Groundwater Sump b. Coal Pile Runoff and Seepage c. West Station Area Runoff d. Slag Tank Cooling Water e. The Cribhouse Area Runoff 8. Equalization Basins a. Non-Chemical Metal Cleaning Waste b. Water Treatment Plant Area Runoff c. Condensate Polisher Backwash d. Water Treatment Plant Drains e. Water Treatment Plant Filter Backwash f. Chemical Metal Cleaning Wastes g. DSI Building Washdown 9. Metal Cleaning Wastes				5 MGD Intermittent Intermittent 0.03 MGD Intermittent  Intermittent 0.1 MGD 0.03 MGD Intermittent  Intermittent  1 GPD  Intermittent Intermittent Intermittent 1.0 MGD Intermittent  Intermittent Intermittent 0.001 MGD Intermittent 0.017 MGD Intermittent 400 GPD		
Flow (MGD)	See Special Condition 1				Daily	Continuous
TSS			15	30	1/Week	24 Hour Composite
Oil and Grease			15	20	2/Month	Grab

NPDES Permit No. IL0002241

Effluent Limitations and Monitoring

1. From the modification 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 C01: Sewage Treatment Plant Effluent (DAF = 0.021 MGD)

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 (MGD)	See Special Condition 1				Daily	Continuous
Total Suspended Solids			30	60	2/Month	24 Hour Composite
BOD <sub>5</sub>			30	60	2/Month	24 Hour Composite
Total Residual Chlorine				0.05	Daily When Chlorinating	Grab
Fecal Coliform			Monitoring Only		2/Month	Grab

If equipment maintenance or malfunction prohibits the continuous sampling for flow at outfall C01, then sampling shall consist of a single reading estimate taken at least once per week.

Outfall D01: Demineralizer Regenerant Wastes (DAF = 0.12 MGD)

1. Makeup Demineralizer Regenerant Wastes
2. Condensate Polisher Regenerant Wastes

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 (MGD)	See Special Condition 1				2/Month	24 Hour Total
Total Suspended Solids			15	30	2/Month	8 Hour Composite
Oil and Grease			15	20	1/Month	Grab

NPDES Permit No. IL0002241

Effluent Limitations and Monitoring

1. From the modification 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 E01: Ash Sluice Water Recycle System Emergency Overflow (Intermittent Discharge)

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 When Discharging	Estimate
Total Suspended Solids			15	30	2/Month	Grab
Oil and Grease			15	20	1/Month	Grab

Outfall F01: Switchyard Area Runoff (Intermittent Discharge)

Flow (MGD)	See Special Condition 1				1/Month	Estimate
Stormwater Pollution Prevention Plan	See Special Condition 15					

H01: Metal Cleaning Wastes (Intermittent Discharge)

1. Chemical Metal Cleaning Waste (Intermittent Discharge)
2. Non-Chemical Metal Cleaning Waste (Intermittent Discharge)

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				Daily When Discharging	Estimate
Total Suspended Solids			30	100	Daily When Discharging*	Grab
Oil and Grease			15	20	Daily When Discharging*	Grab
Iron			1.0	1.0	Daily When Discharging*	Grab
Copper			1.0	1.0	Daily When Discharging*	Grab

\*Not Exceed two samples per month

NPDES Permit No. IL0002241

Effluent Limitations and Monitoring

1. From the modification 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 I01: Poned Free Liquids, Subsurface Free Liquids, Stormwater from Kincaid Ash Pond (Discharge = 2.16 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				Daily	Continuous
Total Suspended Solids			15	30	1/Week	Grab
Oil and Grease			15	20	2/Month	Grab

Outfall 002: Intake Screen Backwash (Intermittent Discharge)\*  
 Outfall 008: East M2 Conveyer Belt Area Runoff (Intermittent Discharge)  
 Outfall 009: West M2 Conveyer Belt Area Runoff (Intermittent Discharge)

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	Estimate
Stormwater Pollution Prevention Plan	See Special Condition 15					

\*There shall be no discharge of collected debris

Special Conditions

SPECIAL CONDITION 1. Flow (in Million Gallons per Day) shall be reported as a monthly average and a daily maximum on the DMR form.

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 thermal discharge to Lake Sangchris shall meet the following standards and conditions: The effluent temperatures shall not exceed 37°C (99°F) during more than seven (7) percent of the hours in the 12 month period ending with any month and shall at no time exceed 44°C (111°F). Compliance with the above thermal limitations shall be determined by reporting daily average and daily maximum water temperatures of the discharge, the number of hours per month 99°F is exceeded, and the percentage of hours 99°F was exceeded in the previous 12 months. Thermal data collected during this permit cycle will be analyzed to reassess thermal limitations during the next permit review.

The Permittee may use back-up continuous monitoring equipment for temperature if the primary monitoring equipment fails. The Permittee may take manual readings on the existing temperature gauges in the event the back-up equipment fails. The sample frequency for manual temperature readings shall be once per day if the temperature is greater than 5° Fahrenheit from the effluent limitation and once per hour if the temperature is within 5° Fahrenheit from the temperature effluent limitation.

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. There shall be no discharge of polychlorinated biphenyl compounds (PCB's).

SPECIAL CONDITION 7. The bypass provisions of 40 CFR 122.41(m) and upset provisions of 40 CFR 122.41(n) are hereby incorporated by reference.

SPECIAL CONDITION 8. 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 (Outfalls 001, B01 and E01) for purposes of this permit reissuance, 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 9. The use or operation of this facility shall be by or under the supervision of a Certified Class K operator.

SPECIAL CONDITION 10. In the event the permittee shall require the use of water treatment additives not previously approved by this Agency, or in the event the permittee increases the feed rate or quantity of the additives used beyond what has previously been approved by this Agency, the permittee shall request a modification in the permit in accordance with the Standard Conditions, Attachment H.

SPECIAL CONDITION 11. 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 12. 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 OMRs 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>

Special Conditions

The completed Discharge Monitoring Report forms shall be submitted to IEPA no later than the 25<sup>th</sup> 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  
Attention: Compliance Assurance Section  
2520 West Iles Avenue  
Post Office Box 19276  
Springfield, Illinois  
62794-9276

SPECIAL CONDITION 13. For the purpose of this permit, the waters in the flume are not "waters of the state."

SPECIAL CONDITION 14. The Permittee shall monitor the effluent from outfalls 001, 008, and 009 for the following parameters on a semi-annual basis. This Permit may be modified with public notice to establish effluent limitations if appropriate, based on information obtained through sampling. The sample type shall be a grab and the results shall be submitted to the address in special condition 12 in June and December. The parameters to be sampled and the minimum reporting limits to be attained are as follows:

<u>STORET CODE</u>	<u>PARAMETER</u>	<u>Minimum reporting limit</u>
01002	Arsenic	0.05 mg/L
01007	Barium	0.5 mg/L
01022	Boron	0.1 mg/L
01027	Cadmium	0.001 mg/L
00940	Chloride	0.1 mg/L
01032	Chromium (hexavalent)	0.01 mg/L
01034	Chromium (total)	0.05 mg/L
01042	Copper	0.005 mg/L
00718	Cyanide (available*** or amendable to chlorination)	5.0 ug/L
00720	Cyanide (total)	5.0 uq/L
00951	Fluoride	0.1 mg/L
01045	Iron (total)	0.5 mg/L
01046	Iron (Dissolved)	0.5 mg/L
01051	Lead	1. 0.05 mg/L
01055	Manganese	0.5 mg/L
71900	Mercury ....	1.0 ng/L*
01067	Nickel	0.005 mg/L
00556	Oil (hexane-soluble or equivalent)	5.0 mg/L
32730	Phenols	0.005 mg/L
01147	Selenium	0.005 mg/L
00945	Sulfate	0.1 mg/L
01077	Silver (total)	0.003 mg/L
01092	Zinc	0.025 mg/L

Unless otherwise indicated, concentrations refer to the total amount of the constituent present in all phases, whether solid, suspended or dissolved, elemental or combined, including all oxidation states.

\*1.0 ng/L = 1 part per trillion. •

\*\*Utilize USEPA Method 1631E and the digestion procedure described in Section 11.1.1.2 of 1631E.

\*\*\*USEPA Method OIA-1677

SPECIAL CONDITION 15.

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

A. A storm water pollution prevention plan shall be maintained by the permittee for the storm water associated with industrial activity at this facility. The plan shall identify potential sources of pollution which may be expected to affect the quality of storm water discharges

Special Conditions

associated with the industrial activity at the facility. In addition, the plan shall describe and ensure the implementation of practices which are to be used to reduce the pollutants in storm water discharges associated with industrial activity at the facility and to assure compliance with the terms and conditions of this permit. The permittee shall modify the plan if substantive changes are made or occur affecting compliance with this condition.

1. Waters not classified as impaired pursuant to Section 303(d) of the Clean Water Act.

Unless otherwise specified by federal regulation, the storm water pollution prevention plan shall be designed for a storm event equal to or greater than a 25-year 24-hour rainfall event.

2. Waters classified as impaired pursuant to Section 303(d) of the Clean Water Act

For any site which discharges directly to an impaired water identified in the Agency's 303(d) listing, and if any parameter in the subject discharge has been identified as the cause of impairment, the storm water pollution prevention plan shall be designed for a storm event equal to or greater than a 25-year 24-hour rainfall event. If required by federal regulations, the storm water pollution prevention plan shall adhere to a more restrictive design criteria.

- B. The operator or owner of the facility shall make a copy of the plan available to the Agency at any reasonable time upon request.

Facilities which discharge to a municipal separate storm sewer system shall also make a copy available to the operator of the municipal system at any reasonable time upon request.

- C. The permittee may be notified by the Agency at any time that the plan does not meet the requirements of this condition. After such notification, the permittee shall make changes to the plan and shall submit a written certification that the requested changes have been made. Unless otherwise provided, the permittee shall have 30 days after such notification to make the changes.

- D. The discharger shall amend the plan whenever there is a change in construction, operation, or maintenance which may affect the discharge of significant quantities of pollutants to the waters of the State or if a quarterly visual observation required by paragraph H or the annual facility inspection required by paragraph I of this condition indicates that an amendment is needed. The plan should also be amended if the discharger is in violation of any conditions of this permit, or has not achieved the general objective of controlling pollutants in storm water discharges. Amendments to the plan shall be made within 30 days of any proposed construction or operational changes at the facility, and shall be provided to the Agency for review upon request.

- E. The plan shall provide a description of potential sources which may be expected to add significant quantities of pollutants to storm water discharges, or which may result in non-storm water discharges from storm water outfalls at the facility. The plan shall include, at a minimum, the following items:

1. A topographic map extending one-quarter mile beyond the property boundaries of the facility, showing: the facility, surface water bodies, wells (including injection wells), seepage pits, infiltration ponds, and the discharge points where the facility's storm water discharges to a municipal storm drain system or other water body. The requirements of this paragraph may be included on the site map if appropriate. Any map or portion of map may be withheld for security reasons.
2. A site map showing:
  - i. The storm water conveyance and discharge structures;
  - ii. An outline of the storm water drainage areas for each storm water discharge point;
  - iii. Paved areas and buildings;
  - iv. Areas used for outdoor manufacturing, storage, or disposal of significant materials, including activities that generate significant quantities of dust or particulates.
  - v. Location of existing storm water structural control measures (dikes, coverings, detention facilities, etc.);
  - vi. Surface water locations and/or municipal storm drain locations
  - vii. Areas of existing and potential soil erosion;

Special Conditions

- viii. Vehicle service areas;
  - ix. Material loading, unloading, and access areas.
  - x. Areas under items iv and ix above may be withheld from the site for security reasons.
3. A narrative description of the following:
- i. The nature of the industrial activities conducted at the site, including a description of significant materials that are treated, stored or disposed of in a manner to allow exposure to storm water;
  - ii. Materials, equipment, and vehicle management practices employed to minimize contact of significant materials with storm water discharges;
  - iii. Existing structural and non-structural control measures to reduce pollutants in storm water discharges;
  - iv. Industrial storm water discharge treatment facilities;
  - v. Methods of onsite storage and disposal of significant materials.
4. A list of the types of pollutants that have a reasonable potential to be present in storm water discharges in significant quantities. Also provide a list of any pollutant that is listed as impaired in the most recent 303(d) report.
5. An estimate of the size of the facility in acres or square feet, and the percent of the facility that has impervious areas such as pavement or buildings.
6. A summary of existing sampling data describing pollutants in storm water discharges.
- F. The plan shall describe the storm water management controls which will be implemented by the facility. The appropriate controls shall reflect identified existing and potential sources of pollutants at the facility. The description of the storm water management controls shall include:
1. Storm Water Pollution Prevention Personnel - Identification by job titles of the individuals who are responsible for developing, implementing, and revising the plan.
  2. Preventive Maintenance - Procedures for inspection and maintenance of storm water conveyance system devices such as oil/water separators, catch basins, etc., and inspection and testing of plant equipment and systems that could fail and result in discharges of pollutants to storm water.
  3. Good Housekeeping - Good housekeeping requires the maintenance of clean, orderly facility areas that discharge storm water. Material handling areas shall be inspected and cleaned to reduce the potential for pollutants to enter the storm water conveyance system.
  4. Spill Prevention and Response - Identification of areas where significant materials can spill into or otherwise enter the storm water conveyance systems and their accompanying drainage points. Specific material handling procedures, storage requirements, spill cleanup equipment and procedures should be identified, as appropriate. Internal notification procedures for spills of significant materials should be established.
  5. Storm Water Management Practices - Storm water management practices are practices other than those which control the source of pollutants. They include measures such as installing oil and grit separators, diverting storm water into retention basins, etc. Based on assessment of the potential of various sources to contribute pollutants, measures to remove pollutants from storm water discharge shall be implemented. In developing the plan, the following management practices shall be considered:
    - i. Containment - Storage within berms or other secondary containment devices to prevent leaks and spills from entering storm water runoff. To the maximum extent practicable storm water discharged from any area where material handling equipment or activities, raw material, intermediate products, final products, waste materials, by-products, or industrial machinery are exposed to storm water should not enter vegetated areas or surface waters or infiltrate into the soil unless adequate treatment is provided.

Special Conditions

- ii. Oil & Grease Separation - Oil/water separators, booms, skimmers or other methods to minimize oil contaminated storm water discharges.
  - iii. Debris & Sediment Control - Screens, booms, sediment ponds or other methods to reduce debris and sediment in storm water discharges.
  - iv. Waste Chemical Disposal - Waste chemicals such as antifreeze, degreasers and used oils shall be recycled or disposed of in an approved manner and in a way which prevents them from entering storm water discharges.
  - v. Storm Water Diversion - Storm water diversion away from materials manufacturing, storage and other areas of potential storm water contamination. Minimize the quantity of storm water entering areas where material handling equipment of activities, raw material, intermediate products, final products, waste materials, by-products, or industrial machinery are exposed to storm water using green infrastructure techniques where practicable in the areas outside the exposure area, and otherwise divert storm water away from exposure area.
  - vi. Covered Storage or Manufacturing Areas - Covered fueling operations, materials manufacturing and storage areas to prevent contact with storm water.
  - vii. Storm Water Reduction - Install vegetation on roofs of buildings within adjacent to the exposure area to detain and evapotranspire runoff where precipitation falling on the roof is not exposed to contaminants, to minimize storm water runoff; capture storm water in devices that minimize the amount of storm water runoff and use this water as appropriate based on quality.
6. Sediment and Erosion Prevention - The plan shall identify areas which due to topography, activities, or other factors, have a high potential for significant soil erosion. The plan shall describe measures to limit erosion.
7. Employee Training - Employee training programs shall inform personnel at all levels of responsibility of the components and goals of the storm water pollution control plan. Training should address topics such as spill response, good housekeeping and material management practices. The plan shall identify periodic dates for such training.
8. Inspection Procedures - Qualified plant personnel shall be identified to inspect designated equipment and plant areas. A tracking or follow-up procedure shall be used to ensure appropriate response has been taken in response to an inspection. Inspections and maintenance activities shall be documented and recorded.
- G. Non-Storm Water Discharge - The plan shall include a certification that the discharge has been tested or evaluated for the presence of non-storm water discharge. The certification shall include a description of any test for the presence of non-storm water discharges, the methods used, the dates of the testing, and any onsite drainage points that were observed during the testing. Any facility that is unable to provide this certification must describe the procedure of any test conducted for the presence of non-storm water discharges, the test results, potential sources of non-storm water discharges to the storm sewer, and why adequate tests for such storm sewers were not feasible.
- H. Quarterly Visual Observation of Discharges - The requirements and procedures for quarterly visual observations are applicable to all outfalls covered by this condition.
1. You must perform and document a quarterly visual observation of a storm water discharge associated with industrial activity from each outfall. The visual observation must be made during daylight hours. If no storm event resulted in runoff during daylight hours from the facility during a monitoring quarter, you are excused from the visual observations requirement for that quarter, provided you document in your records that no runoff occurred. You must sign and certify the document.
  2. Your visual observation must be made on samples collected as soon as practical, but not to exceed 1 hour or when the runoff or snow melt begins discharging from your facility. All samples must be collected from a storm event discharge that is greater than 0.1 inch in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. The observation must document: color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution. If visual observations indicate any unnatural color, odor, turbidity, floatable material, oil sheen or other indicators of storm water pollution, the permittee shall obtain a sample and monitor for the parameter or the list of pollutants in Part E.4.
  3. You must maintain your visual observation reports onsite with the SWPPP. The report must include the observation date and time, inspection personnel, nature of the discharge (i.e., runoff or snow melt), visual quality of the storm water discharge (including observations of color, odor, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution), and probable sources of any observed storm water contamination.

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4. You may exercise a waiver of the visual observation requirement at a facility that is inactive or unstaffed, as long as there are no industrial materials or activities exposed to storm water. If you exercise this waiver, you must maintain a certification with your SWPPP stating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to storm water.
  5. Representative Outfalls - If your facility has two or more outfalls that you believe discharge substantially identical effluents, based on similarities of the industrial activities, significant materials, size of drainage areas, and storm water management practices occurring within the drainage areas of the outfalls, you may conduct visual observations of the discharge at just one of the outfalls and report that the results also apply to the substantially identical outfall(s).
  6. The visual observation documentation shall be made available to the Agency and general public upon written request.
- I. The permittee shall conduct an annual facility inspection to verify that all elements of the plan, including the site map, potential pollutant sources, and structural and non-structural controls to reduce pollutants in industrial storm water discharges are accurate. Observations that require a response and the appropriate response to the observation shall be retained as part of the plan. Records documenting significant observations made during the site inspection shall be submitted to the Agency in accordance with the reporting requirements of this permit.
  - J. This plan should briefly describe the appropriate elements of other program requirements, including Spill Prevention Control and Countermeasures (SPCC) plans required under Section 311 of the CWA and the regulations promulgated there under, and Best Management Programs under 40 CFR 125.100.
  - K. The plan is considered a report that shall be available to the public at any reasonable time upon request.
  - L. The plan shall include the signature and title of the person responsible for preparation of the plan and include the date of initial preparation and each amendment thereto.
  - M. Facilities which discharge storm water associated with industrial activity to municipal separate storm sewers may also be subject to additional requirement imposed by the operator of the municipal system

Construction Authorization

Authorization is hereby granted to construct treatment works and related equipment that may be required by the Storm Water Pollution Prevention Plan developed pursuant to this permit.

This Authorization is issued subject to the following condition(s).

- N. If any statement or representation is found to be incorrect, this authorization may be revoked and the permittee there upon waives all rights there under.
- O. The issuance of this authorization (a) does not release the permittee from any liability for damage to persons or property caused by or resulting from the installation, maintenance or operation of the proposed facilities; (b) does not take into consideration the structural stability of any units or part of this project; and (c) does not release the permittee from compliance with other applicable statutes of the State of Illinois, or other applicable local law, regulations or ordinances.
- P. Plans and specifications of all treatment equipment being included as part of the stormwater management practice shall be included in the SWPPP.
- Q. Construction activities which result from treatment equipment installation, including clearing, grading and excavation activities which result in the disturbance of one acre or more of land area, are not covered by this authorization. The permittee shall contact the IEPA regarding the required permit(s).

REPORTING

- R. The annual inspection report shall include results of the annual facility inspection which is required by Part I of this condition. The report shall also include documentation of any event (spill, treatment unit malfunction, etc.) which would require an inspection, results of the inspection, and any subsequent corrective maintenance activity. The report shall be completed and signed by the authorized facility

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employee(s) who conducted the inspection(s). The annual inspection report is considered a public document that shall be available at any reasonable time upon request.

- S. The first report shall contain information gathered during the one year time period beginning with the effective date of coverage under this permit and shall be submitted no later than 60 days after this one year period has expired. Each subsequent report shall contain the previous year's information and shall be submitted no later than one year after the previous year's report was due.
- T. If the facility performs inspections more frequently than required by this permit, the results shall be included as additional information in the annual report.
- U. The permittee shall retain the annual inspection report on file at least 3 years. This period may be extended by request of the Illinois Environmental Protection Agency at any time.

Annual inspection reports shall be submitted electronically at [epa.prmtspeccondtns@illinois.gov](mailto:epa.prmtspeccondtns@illinois.gov) or mailed to the following address:

Illinois Environmental Protection Agency  
 Compliance Assurance Section  
 Annual Inspection Report  
 2520 West Iles Avenue  
 Post Office Box 19276  
 Springfield, Illinois 62794-9276

SPECIAL CONDITION 16. Kincaid Generation, LLC submitted, in accordance with Section 316(b) of the Clean Water Act, the required information under 40 CFR 122.21(r) (2)-(9). The Agency has determined that the operation of a closed-cycle cooling pond, which constitute closed-cycle cooling, meets the Best Technology Available (BTA) to minimize adverse environmental impacts of impingement at the intake and/or entrainment through a closed-cycle recirculating system as defined at 40 CFR 125.92(c) and pursuant to Section 316(b) of the federal Clean Water Act, the Agency has also determined that the permittee can waive some of all of the information required under 40 CFR 122.21 (r)(9) - (13) per 40 CFR 122.21 (r)(1)(ii)(B).

Nothing in this permit authorizes take for the purposes of a facility's compliance with the Endangered Species Act pursuant to 40 CFR 125.98(b)(1).

SPECIAL CONDITION 17. The best available technology (BAT) of Steam Electric Effluent Limitation Guidelines are applicable to the sluices bottom ash, economizer ash, and air heater ashes from Kincaid Generation Station discharges to the sanitary sewer.

Kincaid Generation has provided below and enclosed the information required by 40C.F.R. § 423.19(f)(2):

1. Expected date that each electric generating unit is projected to achieve permanent cessation of coal combustion:
  - Kincaid Unit 1: November 30, 2027
  - Kincaid Unit 2: November 30, 2027
2. Whether each date represents a retirement or a fuel conversion
  - Retirement for Kincaid Units 1 and 2
3. Whether each retirement or fuel conversion has been approved by a regulatory body, and what the relevant regulatory body is
  - Retirement has not yet been approved. The relevant regulatory body is PJM
4. A copy of (1) the most recent integrated resource plan for which the applicable state agency approved the retirement or repowering of the unit subject to the ELGs (2) certification of electric generating unit cessation under 40 CFR 257.103(b), or (3) other documentation supporting that the electric generating unit will permanently cease the combustion of coal by December 31, 2028
  - a. The revised demonstration was submitted to USEPA pursuant to 40 CFR 257.103(b) on November 25, 2025.
  - b. Items 1 and 2 indicate a 2027 retirement date for Kincaid
5. A timeline to achieve the permanent cessation of coal combustion. The timeline is indicated on pages 6-2, 6-3 and 6-4 of the

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Alternative Closure Demonstration to USEPA pursuant to 40 CFR 257.103(b) on November 30, 2020.

Action	Estimated Timeline (Months)
Spec, bid, and Award Engineering Services for CCR impoundment Closure	3
Finalize CCR unit closure plan and seek IEPA approval for CCR unit closure	12
Obtain environmental permits (based on IEPA approval of closure plan): State Waste Pollution Control Construction/Operating Permit NPDES Industrial Wastewater Permit Modification ( <i>modification would be required to</i>	
<i>allow the associated ponded and subsurface free liquids generated before the pond closure to be discharged to Waters of the US and to allow reconfiguration of the various waste streams to either other NPDES- permitted outfalls or newly-constructed NPDES- permitted outfalls)</i>  General NPDES Permit for Storm Water Discharges from Construction Site Activities and a SWPPP  Proposed 35111. Admin Code 845 operating permit application is due NLT September 2021. Construction permit application is anticipated to be due NLT July 2022.	21
Spec, bid, and Award Construction Services for CCR Impoundment Closure	3
Begin Construction of Closure	April 17, 2025
Minimize Active Area of Impoundment Dewater Phase 1 Area	6
Regrade CCR Material in Phase 1 Area	18
Install Cover System - Phase 1 Area*	13
Establish Vegetation - Phase 1 Area**	2
Cease 'coal-Fired Operations of the Six Boilers on site (No later Than)	July 17, 2027
Begin Dewatering Impoundment - Phase 2 Area	2
Cease Placement of Waste (No later Than, allowing for plant cleanup and dredging of impoundments following coal pile and plant closure)	September 17, 2027
Continue Dewatering Impoundment - Phase 2 Area	1

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Regrade CCR Material - Phase 2 Area	6
Install Cover System- Phase 2 Area	5
Establish Vegetation, Perform Site Restoration Activities, Complete Closure, and Initiate Post-Closure Care**	2
Total Estimated Time to Complete Closure	81 months
Date by Which Closure Must be Complete	October 17, 2028

Kincaid Power Plant's Unit 1 and 2 will cease coal combustion pursuant to § 423.19(f), and therefore, discharge of pollutants in BATW generated on and after October 13, 2023 cc;1n continue until closure , but no later than December 31, 2028 per 40CFR § 423.16(g)(l).

1. An electric generating unit shall qualify as a low utilization electric generating unit or permanently ceasing the combustion of coal by December 31, 2028, if such qualification would have been demonstrated absent the following qualifying event:
  - a. An emergency order issued by the Department of Energy under Section 202(c) of the Federal Power Act,
  - b. A System support Resource Designation by PJM, or
  - c. A reliability must run agreement issued by a Public Utility Commission, or
  - d. Any other reliability-related order or agreement issued by a competent electricity regulator (e.g., an independent system operator) which results in that electric generating unit operating in a way not contemplated when the certification was made; or
  - e. The operation of the electric generating unit was necessary for load balancing in an area subject to a declaration under 42 U.S.C. 5121et seq., that there exists:
    - i. An "Emergency," or
    - ii. A "Major Disaster," and
    - iii. That load balancing was due to the event that caused the "Emergency" or "Major Disaster" in paragraph (a)(4) of this section to be declared,
2. Any facility providing the required documentation pursuant to § 423.19(g) may avail itself of the protections of this permit condition.

