INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Eric J. Holcomb
Governor

Brian C. Rockensuess
Commissioner

July 5, 2024

VIA EMAIL jeff.harter@aes.com
AES Indiana
Attn: Mr. Jeffrey A. Harter
Senior Environmental Scientist
One Monument Circle
Indianapolis, Indiana 46204

Re: Solid Waste Land Disposal Facility
Permit Renewal Amended
AES Indiana Petersburg Generating Station RWS III
SW Program ID 63-02
Pike County

Dear Mr. Harter:

AES Indiana's permit renewal for the AES Indiana Petersburg Generating Station RWS III is approved. You, the permittee, must comply with Indiana's rules for solid waste land disposal facilities (329 IAC 10) and the terms of this permit. Your attention to the requirements for managing, containing, and disposing of waste and leachate protects public health and the environment in your community. Please feel free to contact us or your compliance inspector if you have any questions.

Please note: This approval is being amended to add the revised closure and post-closure plans submitted to comply with the compliance schedule requirements G2 and G3 of the previously issued permit approval dated April 23, 2024 (VFC #83628628). The changes are highlighted in bold.

This permit will expire on **April 22, 2029**. To operate past this date, you must submit a renewal application on or before **December 23, 2028**.

The facility is a Restricted Waste Type (RWS) Landfill approved for disposing of certain coal combustion waste. It is located at 6925 North State Road 57, Petersburg in Pike County.

Please note: Section G. Compliance Schedule Requirements requires submittal of documents to IDEM for approval within 30 days, 45 days, and 60 days after issuance of this permit.

Public records for your facility are available in IDEM's Virtual File Cabinet at www.in.gov/idem. Documents related to this approval include the permit renewal application dated May 18, 2023 (VFC #83479178), and additional information dated March 22, 2024 (VFC #83617040), and dated May 22, 2024 (VFC#83643456).

This permit renewal approval includes modifications proposed in the renewal application addendum that allows AES Indiana to do the following at the landfill:

- Decrease the permitted acreage from 122.06 acres to 80.1 acres by eliminating the 43-acre horizontal expansion area approved in the permit modification issued in 1994,
- Eliminate the 31-acre piggyback expansion area, on the east slope of the landfill, approved in the 1994 permit modification,
- Convert the landfill from a RWS Type I (RWS I) to a RWS Type III (RWS III) landfill, except for the groundwater monitoring requirements. The facility will maintain the approved groundwater monitoring system required for a RWS I landfill,
- Modify the final cover system,
- Update the final cover surface water drainage plan,
- Modify the final grading plan and the final contour design,
- Utilize an engineered turf closure system versus a vegetated cap for the final cover,
- Revise the storm water management system,
- Update the construction quality assurance (CQA) plan,
- Update the closure and post-closure plans and cost estimates,
- Remove the two leachate ponds approved for the landfill expansion, and
- Remove the two storm water detention basins approved for the landfill expansion.

With this modification, the facility is approved as a RWS III Landfill, with continued RWS I groundwater monitoring. The facility has approximately 80.1 acres approved for filling. AES Indiana converted the plant from coal to natural gas for electricity production, and hence not generating any coal ash. The facility has not placed any waste in this landfill since 2009 and plans to close it.

This permit does not: convey any property rights of any sort or any exclusive privileges; authorize any injury to any person or private property or invasion of other private rights or any infringement of federal, state, or local laws or regulations; or preempt any duty to comply with other state or local requirements (329 IAC 10-13-4(a)).

Please note, as the owner or operator of this facility, and owner of the land upon which it is located, you are liable for any environmental harm caused by the facility (329 IAC 10-13-4(b)).

If you do not comply with the requirements of this permit, IDEM may modify or revoke this permit (329 IAC 10-13-6) or initiate an enforcement action.

If you wish to appeal this decision, you must file a request for administrative review with the Office of Environmental Adjudication within 18 days after the postmark of this letter. The enclosed Notice of Decision notifies you of additional important details regarding the appeal process and your rights and responsibilities for filing an adequate and timely appeal.

If you have any questions, please contact Kira Wren, the permit manager assigned this facility, by dialing (317) 233-7090 or by email at KWren@idem.IN.gov.

Sincerely,

Thomas Kreke

Thomas Kreke, Chief
Solid Waste Permits Section
Office of Land Quality

Enclosures: Permit Requirements
Notice of Decision
Guide to Appeals Process
Letter to the The Press-Dispatch
Letter to the Pike County Public Library

cc with enclosures: Pike County Health Department
Pike County Commissioners
Pike County Solid Waste Management District
Director, Southeast IDEM Regional Office
Mayor, City of Petersburg
Mandy Snyder, mandy.snyder@aes.com
Braden Henson, braden.henson@aes.com
Jay Mokotoff, jay.mokotoff@aecom.com
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Pilar Cuadra, pilar.cuadra@aes.com

PERMIT REQUIREMENTS

A. General Permit Requirements

B. Operational Requirements

C. Groundwater Monitoring Requirements

D. Closure Requirements

E. Post-Closure Requirements

F. Financial Responsibility for Closure and Post-Closure

G. Compliance Schedule Requirements

A. GENERAL PERMIT REQUIREMENTS

A1. The permittee must comply with 329 IAC 10 except where alternative specifications or requirements are noted in approved plans or this permit.

A2. The permittee must construct, operate, and maintain the facility as described in the approved plans and specifications. The permittee must request approval before modifying the facility or facility operating procedures. The permit modification application requirements are in 329 IAC 10-11. Application forms are available from the Solid Waste Permits Section at the address listed in Requirement A4.

Certain insignificant modifications defined in 329 IAC 10-2-97.1 are eligible for the streamlined notification or approval procedures described in 329 IAC 10-3-3.

A3. The permittee must call **(888) 233-7745** (IDEM's emergency response line) within 24 hours after learning of any event that may cause an imminent and substantial endangerment to human health or the environment, such as a reportable spill (327 IAC 2-6) or a fire or explosion that requires the response of the local fire department.

The permittee must submit a written report to the Solid Waste Permits Section at the address given in Requirement A4 within five business days after the event. The report must describe the event, and actions taken or planned to correct the event and prevent its reoccurrence.

A4. Unless otherwise noted, submittals should be sent to the Solid Waste Permits section at the below email address. Include the facility name and SW Program ID in the email subject line.

SolidWasteSubmittals@idem.IN.gov

If you have questions contact the Solid Waste Permits section at (317) 232-4473, or the Permit Manager assigned to your facility.

Note: Any email and its attachment(s) must total less than 20 MB in size. In place of email, you may also upload a submittal to a secure folder on IDEM's website, which will then remain available to upload future submittals, applications, and other documents. There is no size limitation if you use this option. To set up access to an upload folder, send a request to the above email address including the facility name and SW Program ID number.
If a physical copy of a submittal is required, send it to the Permit Manager assigned to your facility at the following address:

Indiana Department of Environmental Management
Office of Land Quality
Solid Waste Permits Section
IGCN 1101
100 North Senate Avenue
Indianapolis, IN 46204-2251

A5. The permittee must submit quarterly tonnage reports (329 IAC 10-14-1) through the Re-TRAC Connect website: https://connect.re-trac.com/. An account is already set up for you to submit this information. To obtain your login credentials, please email olqregulatoryreporting@idem.IN.gov with your permit number and contact information. Each report must include the tonnage of waste received by and delivered to the facility during the period for which the report is being submitted. Reports must be submitted by the fifteenth day of the first month after the end of the period for which the report is being submitted.

A6. The permittee must pay an annual operating fee of $15,000 pursuant to IC 13-16-1-4 and 329 IAC 10-11-8 if the facility is permitted on January 1 of the billing year (IC 13-16).

The annual fee for groundwater compliance sampling is $400 per well.

IDEM is required to invoice these fees by January 15 of each year (IC 13-20-21-8). Payments can be made as described on the invoice.

A7. This permit approval does not relieve the permittee of the obligation to comply with the requirements of any current enforcement action on the permit.

B. CONSTRUCTION REQUIREMENTS

B1. The permittee must comply with 329 IAC 10-36 (Operational Requirements).

B2. The permittee must maintain the site benchmark throughout the entire life and post-closure care period of the facility.

B3. The permittee must maintain permanent, visible facility and solid waste boundary markers for the life of the facility.

B4. The permittee must limit solid waste disposal to the areas delineated by the solid waste boundary line as shown on drawing titled “Legal Description of the Solid Waste Boundary,” dated May 16, 2024, and received on March 22, 2024 (VFC #83617040, p 258 of 751).

B5. The Petersburg RWS III landfill must only accept Type III or IV waste generated at the American Electric Company (AES) Petetersburg Generating station that has a valid waste classification. The permittee must not dispose of any other waste in this landfill.

B6. The permittee must submit a waste classification application for renewal at least 60 days before the waste classification expires. The permittee must resample the waste as specified in 329 IAC 10-9-4(d)(3).

B7. The permittee must control public access to the facility and prevent unauthorized vehicular traffic and illegal dumping.

B8. The permittee must manage surface water as described in the approved plans and meet the following requirements:

a. Divert surface water from the active fill area to minimize surface water contact with the waste and interference with the daily operation.

b. Maintain drainage ditches and the sedimentation basin to prevent off-site deposition of sediment. Remove sediment deposits from drainage ditches as necessary to properly convey storm water.

c. Construct temporary run-off structures in areas which are unable to drain to sedimentation basin.

B9. The permittee must manage waste that generates fugitive dust or fugitive particulate matter in a way that does not violate the rules of the air pollution control board at 326 IAC 6-4 for fugitive dust, or 326 IAC 6-5 for fugitive particulate matter. The rules at 326 IAC 6-5-4(g) include control measures for solid waste handling (see 329 IAC 10-8.2-2).

The permittee must implement dust control measures as described in the "Landfill Dust Control Plan" included in Appendix A of the document dated September 15, 2017 (VFC #80522554, pp. 6-22 of 140), except where specified otherwise in this permit, and take any additional steps necessary to prevent violations of fugitive dust rules.

If the Fugitive Dust Control Plan is updated, the permittee must submit the revised plan(s) to IDEM for approval within 60 days after the revision. The permittee must keep a copy of the updated plan in the facility operating record.

B10. The permittee must apply six inches of intermediate cover annually over all exposed coal ash and/or synthetic gypsum regardless of weather conditions (329 IAC 10-36-12(a)). Soil used as cover must meet the unified soil classification ML, CL, MH, CH or OH. The permittee may use alternative cover as described in Requirement B11.

B11. The permittee is approved to use fixated SO_2 scrubber sludge (FSS) as an alternative intermediate cover (329 IAC 10-36-11(b)). Intermediate cover is not required over existing, in-place FSS waste except as specified below.

The permittee must place the FSS cover as described in the minor permit modification application dated January 7, 2009 (VFC #43930573), the response to RAI, dated March 6, 2009 (VFC #44615438), and the following additional requirements:

a. FSS must consist of fly ash, scrubber sludge, and a minimum of 1.5% quicklime with a moisture content range of 20% to 30%.

b. The permittee must apply a minimum thickness of six inches and compact with a smooth drum roller.

c. The permittee must inspect weekly to ensure that fugitive dust and waste migration are controlled.

d. The permittee must direct surface water run-off through rip-rap lined open ditches and grass lined open ditches that divert the surface water run-off to a sedimentation holding basin, and perform daily observations and preventive maintenance as described in the approved modification application.

If IDEM determines that the FSS intermediate cover does not provide a level of environmental protection equivalent to six inches of soil cover, IDEM may require the permittee to apply six inches of soil cover over the FSS.

B12. The permittee must grade and maintain areas under intermediate cover to promote surface water drainage and prevent ponding, and erosion and sedimentation. The permittee must implement additional erosion and sediment control measures in any areas of the landfill that have not received waste in 60 days. Erosion/sedimentation control measures may include, but are not limited to establishment of vegetation, using alternative/synthetic covers or liners, and other applicable erosion/sedimentation control measures.

B13. The permittee must, at a minimum, conduct gradation and Atterberg Limits tests on three samples of the soil, if the permittee notices change to the physical appearance of the cover soil or uses borrow sites other than those specified in the approved plans. The permittee must submit the results to IDEM no later than 15 days after such testing, and before using the soil as cover at the landfill. The permittee must submit details of the new borrow soil source locations to IDEM and submit a permit modification application according to 329 IAC 10 and receive approval before using the source(s).

B14. The permittee must monitor and visually inspect the site monthly for compliance with 329 IAC 10 and this permit. The inspections must evaluate the following: landfill cover, storm water runoff control structures, erosion control structures, drainage ditches, monitoring wells and sumps, dust controls, and leachate collection system. The permittee must record the results of each inspection and keep the inspection records at the facility office for at least three years.

C. GROUNDWATER MONITORING REQUIREMENTS

C1. The permittee must comply with 329 IAC 10-29 (Groundwater Monitoring and Corrective Action) as modified by the Groundwater Monitoring Requirements listed in this renewal permit.

C2. The permittee must conduct groundwater monitoring throughout the active life and the post-closure care period of the facility (329 IAC 10-29-3). IDEM may extend the post-closure care period if groundwater monitoring results show that the facility has not stabilized (329 IAC 10-31-4).

MONITORING DEVICES

C3. The permittee's groundwater monitoring well system (System) includes the following wells: MW-1, MW-2R, MW-3, MW-4C, MW-10, and MW-13. Well MW-1 is upgradient and is considered a background well. Requirement G5 specifies the installation of a new groundwater monitoring well and a corresponding work plan or the inclusion of an additional existing well as required in Requirement G5.

The facility's System includes the following piezometers: LW-1A, LW-1B, LW-6A, LW-8A, LW-8B, LW-18, LW-28A, and LW-28B. The permittee must use the piezometers for the collection of static water level elevations at least semiannually during the months specified in Requirement C14 and report the results following Requirements C22 and C23.

Due to the revised solid waste boundary MW-11 and MW-12 are no longer downgradient of the landfill. Therefore, the facility may add MW-11 and MW-12 to the list of piezometers in the preceding paragraph and follow the listed requirements.

At least 60 days before installing new monitoring devices, the permittee must submit a device-installation work plan for IDEM approval. The plan must provide the following:

a. A map showing the location of each device with respect to the facility's entire System and a current potentiometric surface.

b. A demonstration that each device yields representative groundwater samples at an appropriate location and depth within the same aquifer or aquifers as the facility's existing System.

c. Drilling methods and procedures that follow 329 IAC 10-21-4; well construction materials and details, including protocol for collecting, describing, and analyzing consolidated or unconsolidated materials (329 IAC 10-24-3(3)).

d. An example of a borehole log that includes information specified under 329 IAC 10-24-3(2).

e. Environmental qualifications of all field personnel.

The permittee must submit all field documentation to IDEM within 60 days after completing all related field work.

C4. The permittee must label all groundwater monitoring wells and piezometers with a permanent and unique identification. When reporting well and piezometer information, the permittee must include the identification for each well or piezometer.

C5. The permittee must secure the access ways to all groundwater monitoring wells and piezometers to prevent unauthorized access and maintain the access ways, so they are passable year-round with the exception of flooding conditions.

C6. The permittee must maintain all groundwater monitoring wells and piezometers as follows:

a. Complete necessary repairs, other than replacement (see Requirement E8), within 10 days after discovery or another time frame approved by IDEM.

b. Keep the wells and piezometers securely capped and locked when not in use.

c. Repair all cracks in and around the casings and well pads that may affect the integrity of the wells.

d. Control vegetation height.

e. Redevelop the wells as needed.

C7. When abandoning a groundwater monitoring well or piezometer that is part of the facility's System listed in Requirement C3, the permittee must:

a. Submit a written proposal for approval explaining the reasons for and detailing the method of abandonment.

b. Use methods that comply with Indiana Department of Natural Resources (IDNR) regulation 312 IAC 13-10-2.

c. Notify the IDEM Geology Section by phone, email, or letter at least 10 days before the date the abandonment work will occur.

d. Provide written notification of abandonment to IDEM and IDNR within 30 days after plugging is complete. (IDNR (312 IAC 13-10-2(f)) requires written notice); and

e. Include the abandonment records in the facility operating record.

C8. The permittee must notify IDEM by phone, email, or letter within 10 days after discovering that a groundwater monitoring well or piezometer has been destroyed or is not functioning properly. The permittee must repair the well or piezometer if possible. If the well or piezometer cannot be repaired, then within 30 days after discovery, the permittee must submit a proposal for abandonment or replacement.

PLANS

C9. The permittee must follow the Sampling and Analysis Plan (SAP) dated August 5, 2019 (VFC #82822838, pp. 1-386).

C10. The permittee must follow the Quality Assurance Project Plan (QAPjP) dated August 5, 2019 (VFC #82822838, pp. 387-471).

C11. The permittee must follow the Statistical Evaluation Plan (StEP) dated December 23, 2019 (VFC #82891677).

C12. If IDEM requests a revision to an SAP, QAPjP, or StEP, the permittee must submit the revised plan(s) for approval. The permittee must submit the plan(s) as a PDF to IDEM as required in Requirement A4 for document submittals within 60 days after receiving the request. The date IDEM receives the email will be the receipt date for your submittal. The submittal must include the facility name and a brief description typed in the email's subject heading. Upon IDEM request, the permittee must submit one unbound paper copy in addition to the PDF. The permittee must not implement the revised plan(s) before receiving approval.

C13. If the permittee makes design changes to the System listed in Requirement C3, the permittee must submit a revised SAP, and if applicable, a revised QAPjP, or StEP for approval. The permittee must submit the plan(s) as a PDF to IDEM as required in Requirement A4 for document submittals within 60 days after completing all field activities associated with the design changes. The date we receive the email will be the receipt date for your submittal.
This submittal must include the facility name and a brief description typed in the email's subject heading. Upon IDEM request, the permittee must submit one unbound paper copy in addition to the PDF. The permittee must not implement the revised plan(s) before receiving approval.

MONITORING PROGRAMS

C14. The permittee must sample the facility's System listed in Requirement C3 during May and November of each year. Each sample must be analyzed for the following Phase I parameters:

a. Field pH
b. Field specific conductance
c. Total Boron
d. Total Calcium
e. Chloride
f. Fluoride
g. Sulfate
h. Total Dissolved Solids

The Phase II parameters are as follows:
i. Total Antimony
j. Total Arsenic
k. Total Barium
l. Total Beryllium
m. Total Boron
n. Total Cadmium
o. Total Chromium
p. Total Cobalt

q. Fluoride
r. Total Lead
s. Total Lithium
t. Total Mercury
u. Total Molybdenum
v. Total Selenium
w. Total Thallium
x. Radium 226 and 228 combined

For specific metallic parameters, if the permittee demonstrates with the approval of IDEM that the results for a filtered (dissolved) metal are no greater than 20% of the relative percent difference of an unfiltered (total recoverable) metal, then the permittee may incorporate historic filtered results into the background data set instead of collecting a minimum of four additional samples for the unfiltered metal results. The permittee may submit an alternative method for incorporating historic results of the specific dissolved metal into the background data set for IDEM review and approval.

Whenever results of total chromium occur at or above its background concentration or maximum contaminant level, whichever is the higher concentration, the permittee must speciate and report both trivalent and hexavalent chromium concentrations.

C15. The permittee must use the results of the static water level measurements from the System listed in Requirement C3 to prepare potentiometric surface maps or groundwater flow maps for each screened interval (Zone A and Zone B) that include the following information:

The permittee must use the following wells and piezometers to develop the potentiometric map for Zone A: LW-1A, LW-6A, LW-8A, LW-18, and LW-28A.

The permittee must use the following wells and piezometers to develop the potentiometric map for Zone B: LW-1B, LW-8B, LW-28B, MW-1, MW-2R, MW-3, MW-4C, MW-10, MW-11, MW-12, and MW-13.

a. Location and identification of each groundwater monitoring well and piezometer.
b. Groundwater elevations for each well and piezometer. The permittee must measure all static water levels on the same day and as close in time as possible before the purging and sampling event.
c. Date and time of static water level measurement for each well and piezometer.
d. Ground-surface elevation at each well and piezometer.
e. Facility property boundaries.
f. Identification of the aquifer represented, either by a name or elevation.
g. Solid waste fill boundaries.
h. Facility name and county.
i. Map scale, north arrow, groundwater flow direction arrows, and potentiometric-surface contour intervals.

j. Indications of which wells are considered background, upgradient, downgradient, or intrawell.
k. Locations and elevations of all site benchmarks.

C16. If a groundwater flow map indicates that the groundwater flow direction, including flow reversals, is other than anticipated in the design of the System listed in Requirement C3, the permittee must notify IDEM of the difference in the groundwater monitoring report submitted for Requirement C22. The notification must include either of the following: information demonstrating that the System complies with 329 IAC 10-29-1(b); or a proposal to revise the System design for IDEM approval.

The permittee must determine if the System currently complies with 329 IAC 10-29-1(b) before collecting samples for the scheduled semiannual sampling event. If a flow reversal occurs, then the permittee may postpone the scheduled semiannual sampling event, with IDEM approval, in 30-day extension increments if they determine that the System does not comply with 329 IAC 10-29-1(b).

If the permittee determines a groundwater flow reversal occurred during a scheduled semiannual sampling event, then data from that sampling event must not be utilized in statistical evaluations specified in the StEP or incorporated into background groundwater quality and groundwater protection standard calculations, unless the permittee adequately demonstrates to IDEM that the data accurately represents established groundwater quality conditions when a flow reversal did not occur. Additionally, the permittee must immediately schedule a replacement sampling event in order to complete the required semiannual evaluation for groundwater releases from the facility. Within seven days of scheduling the replacement sampling event, the permittee must notify IDEM of the schedule.

If design changes to the existing System are necessary, then the permittee must make the changes within 30 days after receiving IDEM approval of the revised design or other time frame approved by IDEM.

C17. Background groundwater monitoring well(s) must provide groundwater samples that represent historical conditions unaffected by a CCR unit or facility activities that may contribute Phase I or Phase II parameters listed in Requirement C14 against which background comparisons occur. Additionally, the permittee must determine the background groundwater quality for any background wells added to the System listed in Requirement C3 by sampling each new well for four consecutive quarters within one year after their installation. The permittee must establish background groundwater quality for the following:

a. The Phase I and II parameters in Requirement C14.
b. The secondary standards in 329 IAC 10-29-7(c). All metals listed must be analyzed from unfiltered samples.
c. The groundwater protection standard in 329 IAC 10-29-10. All metals listed must be analyzed from unfiltered samples.

If the permittee or IDEM determines that the current System (see Requirement C3) does not have the required background well(s), then within 60 days the owner or operator must submit a plan per Requirement C3 proposing to establish new or additional background wells for the current System for IDEM review and approval. This plan must include well location(s) for obtaining background groundwater quality samples that satisfy the specifications of this requirement.

C18. The permittee must apply the StEP identified in Requirement C11 to determine whether there is a statistically significant increase (increase or decrease for pH) over the background for each Phase I or Phase II parameter. The statistical determination must include the value obtained during each semiannual analysis with the established background (329 IAC 10-29-5). The permittee must include the outcome of each statistical determination in a statistical evaluation report (see Requirement C22.d).

C19. If the permittee determines there is a statistically significant increase (increase or decrease for pH) over background for two or more of the Phase I parameters at any of the downgradient wells, the permittee must comply with the following requirements:

a. Notify IDEM in writing within 14 days after the finding. The notification must state which Phase I parameters showed statistically significant increases (increase or decrease for pH) over background levels and which downgradient well(s) showed the elevated concentrations.

b. Collect and analyze the groundwater from all monitoring wells for the parameters listed in Requirement C14 (Phase II parameters). The permittee must submit the results to IDEM within 60 days after determining the statistically significant increases.

c. Establish a Phase II monitoring program based on the results obtained from Requirement C19.b and consult with the IDEM Geology Section within 30 days after completing Requirement C19.b.

The permittee must continue the scheduled Phase I monitoring as described in Requirement C14 and 329 IAC 10-29 throughout the establishment and implementation of a Phase II monitoring program.

C20. In lieu of Requirements C19.b and C19.c, the permittee may attempt to demonstrate that a source other than the solid waste facility caused the increase (increase or decrease for pH) or that the increase (increase or decrease for pH) resulted from error in sampling, analysis, or evaluation. For IDEM to approve the demonstration, the permittee must comply with the following requirements:

a. Notify IDEM in writing of the intent to make a demonstration. The permittee must submit the notification within seven days after determining a statistically significant increase (increase or decrease for pH).

b. Submit a report to IDEM within 90 days after determining a statistically significant increase (increase or decrease for pH). The report must demonstrate that a source other than the solid waste facility caused the increase (increase or decrease for pH), or that the increase (increase or decrease for pH) resulted from error in sampling, analysis, or evaluation. The report must state what efforts the permittee will take to prevent these errors from recurring.

c. Continue to monitor groundwater at all monitoring wells according to the scheduled Phase I monitoring in Requirement C14.

If a demonstration is not acceptable to IDEM, the permittee must continue with Requirements C19.b and C19.c.

C21. The permittee must implement a corrective action program whenever the concentration of any Phase II parameter attributable to the RWS III Landfill facility shows statistically significant level(s) greater than the groundwater protection standards. The corrective action program must appropriately address any threat to human health or the environment and be able to achieve the concentration limits in the groundwater protection standards specified in this Requirement by removing, managing, addressing, or treating in place any Phase II constituents that were released by the RWS III Landfill facility and that show a statistically significant level greater than the groundwater protection standards at or beyond the monitoring boundary. The corrective action program comprises the following:

a. The groundwater protection standards for the Phase II parameters are as follows:

1) For parameters for which a maximum contaminant level (MCL) has been established under §§ 141.62 and 141.66 of 40 CFR.

2) For the following parameters:

(i) Boron 4,000 micrograms per liter (µg/l),

(ii) Cobalt 6 µg/l,

(iii) Lead 15 µg/l,

(iv) Lithium 40 µg/l, and

(v) Molybdenum 100 µg/l, or

3) For parameters for which the background level is higher than the levels identified under (a)(1) and (a)(2) of this Requirement, the background concentration.

b. Whenever a concentration of any Phase II parameter shows a statistically significant level greater than the groundwater protection standard, the owner or operator must:

1) Notify the commissioner of this finding in writing within 14 days. The notification must indicate which parameter(s) has shown statistically significant level(s) greater than the groundwater protection standard(s).

2) Implement the corrective action following the technical recommendations specified in the IDEM letter dated November 9, 2023 (VFC #83556014).

c. Corrective action programs under this Requirement must be initiated within a reasonable period of time as determined by the commissioner. The corrective action program is complete when concentrations of Phase II constituents attributable to the RWS III Landfill facility no longer exceed the groundwater protection standards at all points of the plume beyond the monitoring boundary for a period of three consecutive years using the statistical procedures outlined in 329 IAC 10-29-5 and procedures approved through this approval letter.

REPORTING

C22. No later than 90 days, after each groundwater monitoring event completed for Requirement C14, the permittee must submit by email as a PDF and an electronic data file (EDF) (see Requirement C23) the information in a groundwater monitoring report to IDEM as required in Requirement A4 for document submittals. The date we receive the email will be the receipt date for your submittal.

Unless otherwise notified, the permittee must also email the EDF to geologydata@idem.IN.gov. The email must include the facility name and a brief description typed in the email's subject heading. The permittee must clearly label the PDF and EDF with the facility name and a brief description of the file. Upon IDEM request, the permittee must submit one unbound paper copy in addition to the PDF.

The report must include the following:

a. One laboratory-certified report with analytical and field parameters results, field sheets, and chain-of-custody forms. The laboratory-certified report must include the following: detection limit for each chemical constituent, date of sample collection, date the laboratory received the samples, date the laboratory analyzed the samples, date the laboratory prepared the report, method of analysis the laboratory used for each constituent, sample identification number for each sample, and results of all sample analyses.

b. All information specified in Requirement C15 and a table summarizing the static water level and groundwater elevation for each well and piezometer.

c. Comments regarding groundwater quality, recent notifications of any compliance issues related to a problematic well or piezometer (see Requirement C8), special field observations and procedures, and deviations from the SAP.

d. The statistical evaluation report (see Requirement C18).

C23. The permittee must submit one EDF of the analytical and field parameters results from the System listed in Requirement C3 formatted as an ASCII, tab-delimited text file. The EDF must contain the facility's name, SW Program ID, and the name of the analytical laboratory. Additionally, the file must include the fields listed below for the analytical results and the following field parameters when measured: pH, specific conductance, temperature, well depth, depth to water, and static water elevation.

a. SampleDate: Month, day, and year (mm/dd/yyyy). Value should be formatted as a date if possible.
b. WellName: Names of monitoring wells, piezometers, leachate wells, surface water collection points, etc.
c. LabIDN: ID assigned to the sample by the laboratory.
d. SampleType: Regular, duplicate(s), trip blank(s), equipment blank(s), field blank(s), verification re-sample(s), and replicate(s).
e. SpeciesName: Chloride, sodium, ammonia, field pH, etc. The order of constituents is not critical. However, it is best to reflect the order that is on the laboratory-data sheets and keep all field data grouped together. Metals should indicate “dissolved” phase or “total” phase. Associated static water levels do not have their own header, but must be entered as “GW WaterLevel” under the header “SpeciesName.” The actual elevations must be entered under the header “Concentration.”
f. Concentration (results): The entry must be a number. Please do not enter text, such as “NA,” “ND,” or “<.”
g. Units: mg/l, µg/l, standard units for pH, degrees Celsius (°C) or degrees Fahrenheit (°F) for temperature, and µmhos/cm for specific conductance.
h. Detected: Yes or no.
i. DetectionLimit.
j. AnalyticalMethod.
k. EstimatedValue: Indicate “Yes” if the reported concentration is an estimated value. If a value recorded was not estimated, enter “No.” If a concentration is estimated, use the “Comments” field to explain why the concentration was estimated.
l. Comments: Analytical laboratory and/or field personnel comments regarding the reported results. Please note, the Comment field is limited to 100 characters; therefore, abbreviate where possible.
m. SampleMedium: Groundwater, leachate, surface water, etc.
n. ProgramArea: Solid Waste.

Additional guidance on EDF submittals is available by emailing questions to geologydata@idem.in.gov.

C24. The permittee must retain laboratory quality assurance/quality control (QA/QC) documentation from valid analyses of groundwater samples for at least three years.

Upon IDEM request, the permittee must submit by email the laboratory QA/QC for a specified groundwater monitoring data package as a PDF to IDEM as required in Requirement A4 for document submittals within 60 days after receiving the request. The "*Solid & Hazardous Waste Programs, Analytical Data Deliverable Requirements: Supplemental Guidance*" provides additional information about laboratory QA/QC. The guidance is available on IDEM's website at (www.in.gov/idem/waste/files/resource_sw_data_deliverable_reqs.pdf).

D. CLOSURE REQUIREMENTS

D1. The permittee must comply with 329 IAC 10-37 (Closure Requirements) and follow the facility closure plan **dated May 22, 2024 (VFC #83643456, pp. 13-22 of 22).**

D2. The permittee must notify IDEM in writing at least 60 days before the intended date to begin closure of each area.

D3. The permittee must construct the final cover system as follows:

a. In accordance with the schedule provided in the Closure Plan (VFC #83617040, pp. 657 of 751).

b. As specified in the facility Construction Quality Assurance Plan (CQA Plan) dated March 2024 (VFC #83617040, pp. 676-741 of 751).

c. As specified in the approved final grading plan drawings titled “Final Cover Stormwater Plan,” and “Details 1,” dated March 22, 2024 (VFC #83617040, pp. 748 and 751 of 751).

d. Grade and stabilize the final cover as specified in 329 IAC 10-37 insomuch as it may apply to the Final Cover System referenced in D3.c.

e. Construct the final cover with a composite cover system consisting of ClosureTurf® as specified in the ClosureTurf® Installation Guidelines Manual included in the document dated March 22, 2024 (VFC #83617040, pp. 279-303 of 751), after the removal of existing vegetation and topsoil, with the following components, extending from top of waste:

(1) Recompacted existing soil
(2) 40-mil or 50-mil LLDPE geomembrane
(3) Engineered turf with specified aggregate infill

f. The ClosureTurf® must be installed and maintained as specified by the Watershed Geo technical specifications, Installation Guidance Manual, and Construction Quality Assurance (CQA Plan), provided in the document dated March 22, 2024 (VFC #83617040, pp. 263-265, 278-303, and 676-741 of 751). The permittee must follow the site specific CQA plan.

IDEM may require a revised final cover system as specified in Requirement E3.

g. As of the date of this permit, all the permitted 80.1 acres have been constructed and certified to receive waste. The final closure of the landfill consists of 80.1 acres of composite cover system, including the previously closed 31.9 acres, and hence no area has been certified closed with the required cover system.

D5. The permittee must construct the landfill surface water control structures as shown on the drawings titled "Final Cover Stormwater Plan," and "Details I," dated March 22, 2024 (VFC #83617040, pp. 748 and 751 of 751), and updated according to the approved plan submitted as specified in the Compliance Schedule Requirement G1.

E. POST-CLOSURE REQUIREMENTS

E1. The permittee must perform post-closure monitoring and maintenance as specified in the facility's revised post-closure plan **dated May 22, 2024 (VFC #83643456, pp. 3-13 of 22)**, and applicable requirements of 329 IAC 10-38.

E2. The permittee must maintain the turf grass over the final cover system as specified in the post-closure plan dated March 22, 2024 (VFC #83617040, pp. 665-674 of 751). The facility must inspect and maintain the turf grass performance as specified in the ClosureTurf Owner's Post-Closure Care Manual included in the document dated (March 22, 2024 (VFC #83617040, pp. 266-277 and 304-315 of 751), repair damage within 30 days after detection, and include documentation of the repair in the post-closure report submitted to IDEM, in accordance with 329 IAC 10-38-2(a)(2).

E3. IDEM may require the permittee to submit a revised final cover system if:

a. The engineered turf is not maintained properly over the entire final cover system.

b. The geomembrane is damaged and/or not maintained properly.

F. FINANCIAL RESPONSIBILITY FOR CLOSURE AND POST-CLOSURE

F1. The permittee must update and maintain a financial assurance mechanism in an amount not less than the estimated costs of closure and post-closure as required in 329 IAC 10-39. The permittee must submit signed originals of the financial assurance mechanism and/or updates used to meet this requirement.

F2. The permittee must annually review and submit an update by June 15 addressing the following items as detailed in 329 IAC 10-39-2(c) and (d) and 329 IAC 10-39-3(c):

a. The permittee must adjust the closure and post-closure cost estimates for inflation.

b. The permittee must revise the cost estimates to account for changes which increase the cost of closure and/or post-closure.

c. The permittee may revise the cost estimates to account for changes which reduce the cost of closure and/or post-closure. The permittee must provide documentation supporting reduced cost estimates, for example: letters and maps documenting areas certified as closed.

d. The permittee must submit an existing contour map of the approved solid waste land disposal facility that delineates the boundaries of all areas into which waste has been placed, and the boundaries of areas certified as closed. The map must be certified by a professional engineer or a registered land surveyor.

e. The permittee must submit documentation showing that the financial assurance mechanism is current and adequate to cover the estimated cost of closure and post-closure. The permittee must submit signed originals of the financial assurance mechanism and/or updates used to meet this requirement.

G. COMPLIANCE SCHEDULE REQUIREMENTS

G1. The permittee must submit to IDEM for approval, the following regarding final cover storm water control:

a. A revised HydroCad modeling results within 30 days after receiving this approval.

b. A revised final cover storm water diversion plan and final contours within 30 days after the approval of the revised HydroCad modeling results submitted as specified in Requirement G1a, if the proposed storm water controls are not adequate for a 24-hour, 25-year storm event.

G2. Within 60 days after receiving this approval, the permittee must submit to IDEM for approval a revised closure cost estimate. This estimate must include all costs associated with the closure of the landfill in Section III of the Closure Form included in the document dated March 22, 2024 (VFC #83617040, p. 657 of 751) (e.g., installation of the engineered turf system), and a 10% contingency costs based on the total cost estimate of all closure activities.

G3. Within 60 days after receiving this approval, the permittee must submit to IDEM for approval a revised post-closure cost estimate to include 10% on the total post-closure cost estimate for contingency costs.

G4. Within 45 days after approval of the cost estimates submitted as specified in Requirement G2, the permittee must update the financial assurance mechanism to an amount not less than the approved estimated costs for closure and post-closure. Within 60 days after approval of the cost estimates submitted as specified in Requirement G2, the permittee must submit proof of the updated financial assurance mechanism. The permittee must submit signed originals of the updated financial assurance mechanism to IDEM.

G5. Due to the approximate 1100-foot spacing between downgradient groundwater monitoring wells MW-10 and MW-4C, the permittee must install a new well or include an additional existing well in the System within approximately 500 feet from either MW-4C or MW-10, screened in the same monitoring zone as MW-10 and MW-4C, and following Requirement C3. If the permittee includes an additional well in the System, the permittee must provide the location, well construction details, and boring log(s) within 90 days following issuance of this permit for approval.

If the permittee installs an additional well, then the device-installation work plan (see Requirement C3) must include a timeframe for installing the well, with the anticipation that the additional well will provide a representative sample at the next scheduled sampling event (see Requirement C14) unless the next scheduled sampling event is within 120 days. If the next scheduled sampling event is within 120 days following the issuance of this permit, the new well will provide the representative sample at the subsequent sampling event. The additional well will be part of the System specified in Requirement C3.

From:	Poe, Diane L
To:	jeff.harter@aes.com
Cc:	Senate District48; House District75; ahowald@pikecounty.in.gov; flintconsultingllc@outlook.com; kdischinger; jeff.nelson@pikecounty.in.gov; pikeswmd@frontier.com; Carr, Nicholas; mayor@petersburg.in.gov; mandy.snyder@aes.com; braden.henson@aes.com; jay.mokotoff@aecom.com; cory.richardson@aes.com; pilar.cuadra@aes.com
Bcc:	Feller, Robin; Kurylo, Leo; Kreke, Thomas; Hummel, Lindsey; Wren, Kira; RAMAN, SHYAMALA; GUERRETTAZ, JOHN; BUCKEL, STEVE; TEAGUE, JEFF; Beard, Scott; Arnold, Janet; JEAN, RUTH; OAKES, GLYNDA
Subject:	AES Petersburg Generating Station RWS III Landfill Permit Renewal Approval - AMENDED
Date:	Friday, July 5, 2024 9:10:00 AM
Attachments:	image001.png image002.png image003.png image004.png image005.png image006.png

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Attached is amended correspondence regarding the above property in Pike County. A hardcopy will **not** be sent to the addressee.

The only enclosure is the affected permit requirements. All other attachments remain the same as in the original April 23, 2024 email.

If you have any questions, please contact Kira Wren, permit manager. Her information is in the last paragraph of page 3 above Mr. Kreke's signature block.

Indiana Department of Environmental Management

Diane Poe

OLQ Permits Branch Administrative Assistant

• (317) 232-4473 • dpoe@idem.IN.gov

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www.idem.IN.gov

From:	Poe, Diane L
To:	jeff.harter@aes.com
Cc:	Senate District48; House District75; ahowald@pikecounty.in.gov; flintconsultingllc@outlook.com; kdischinger; jeff.nelson@pikecounty.in.gov; pikeswmd@frontier.com; Carr, Nicholas; mayor@petersburg.in.gov; mandy.snyder@aes.com; braden.henson@aes.com; jay.mokotoff@aecom.com; cory.richardson@aes.com; pilar.cuadra@aes.com
Bcc:	Feller, Robin; Kurylo, Leo; Hummel, Lindsey; Kreke, Thomas; Wren, Kira; RAMAN, SHYAMALA; GUERRETTAZ, JOHN; BUCKEL, STEVE; TEAGUE, JEFF; Beard, Scott; Arnold, Janet; OAKES, GLYNDA; JEAN, RUTH
Subject:	Oops! RE: AES Petersburg Generating Station RWS III Landfill Permit Renewal Approval - AMENDED
Date:	Friday, July 5, 2024 9:14:00 AM
Attachments:	image001.png image002.png image003.png image004.png image005.png image006.png 070524 63-02 Renewal Approval Amended.pdf

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I left off the attachment on the original email. My apologies!

Diane Poe, Administrative Assistant
OLQ Permits Branch
(317) 232-4473
dpoe@idem.in.gov

From: Poe, Diane L
Sent: Friday, July 5, 2024 9:11 AM
To: jeff.harter@aes.com
Cc: Senate District48 <S48@iga.in.gov>; House District75 <H75@iga.in.gov>; ahowald@pikecounty.in.gov; flintconsultingllc@outlook.com; kdischinger <kdischinger@pikecounty.in.gov>; jeff.nelson@pikecounty.in.gov; pikeswmd@frontier.com; Carr, Nicholas <NCarr@idem.IN.gov>; mayor@petersburg.in.gov; mandy.snyder@aes.com; braden.henson@aes.com; jay.mokotoff@aecom.com; cory.richardson@aes.com; pilar.cuadra@aes.com
Subject: AES Petersburg Generating Station RWS III Landfill Permit Renewal Approval - AMENDED

Attached is amended correspondence regarding the above property in Pike County. A hardcopy will **not** be sent to the addressee.

The only enclosure is the affected permit requirements. All other attachments remain the same as in the original April 23, 2024 email.

If you have any questions, please contact Kira Wren, permit manager. Her information is in the last paragraph of page 3 above Mr. Kreke's signature block.

Indiana Department of
Environmental Management
Diane Poe
OLQ Permits Branch Administrative Assistant
• (317) 232-4473 • dpoe@idem.IN.gov

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From:	postmaster@aes.com
To:	jeff.harter@aes.com
Subject:	Delivered: Oops! RE: AES Petersburg Generating Station RWS III Landfill Permit Renewal Approval - AMENDED
Date:	Friday, July 5, 2024 9:16:09 AM
Attachments:	Oops! RE AES Petersburg Generating Station RWS III Landfill Permit Renewal Approval - AMENDED.msg

---

Your message has been delivered to the following recipients:
jeff.harter@aes.com (jeff.harter@aes.com) <mailto:jeff.harter@aes.com>
Subject: Oops! RE: AES Petersburg Generating Station RWS III Landfill Permit Renewal Approval - AMENDED